

Kennesaw State University

2017-2018 Undergraduate Catalog

This catalog was prepared for the 2017-2018 academic year. The information contained in catalog is for informational purposes only and should not be construed as the basis of a contract between a student and this institution.

While the provisions of this catalog will ordinarily be applied as stated, Kennesaw State University reserves the right to change any provision listed in this catalog, including but not limited to academic requirements for graduation, without actual notice to individual students.

Every effort will be made to keep students advised of any new information and/or changes in provisions listed in this catalog. The Schedule of Credit Courses is considered an extension of this catalog. Both the online catalog and the Schedule of Credit Courses (<http://www.kennesaw.edu/registrar>) are always the most current.

It is incumbent on students to keep apprised of the graduation requirements for the degree they are pursuing.

Students have the responsibility to read this catalog, official announcements, notices posted on electronic listservs, and otherwise to be informed completely in regard to the programs of studies, credits, degree requirements, quality points and other facts relating to life at this university. KSU has established a free student account email system and will periodically email students with important messages. The university will use this email system exclusively to communicate with students.

In the event that an administrative hearing officer or a court of record determines that "publications" issued by the university create a contractual or quasi-contractual relationship with any person, the amount of damages recoverable by the parties shall be limited to the amount of consideration paid by the person for the privilege of admission, enrollment, continued enrollment or other service rendered by the institution to such person.

As used herein, the term "publications" (without limiting the generality of the normal meaning of the term) shall be deemed to include any and all written forms or other documents issued by the institution concerning applications for admission, enrollment or continued enrollment, waivers of liability, consents to medical treatment and any and all other written forms, documents, letters or other materials issued by the university in furtherance of its educational mission.

How the Online Catalog works

- Advanced search features allow you to search for courses, policies, and degree programs using course prefix, course number, exact match or descriptive phrases.
- Navigating to different sections of the Catalog is easily done by clicking on the menu options on the right-hand side of the screen.
- Each section has a print friendly view to allow for cleaner, more attractive pages when you print.
- Help icons are readily available on each page.

Should you have any additional questions concerning Catalog content, please contact the Office of the Registrar at 770-423-6200.

If you need assistance selecting courses or a degree program, please contact an academic advisor at <http://advising.kennesaw.edu/>.

Purpose of the Catalog

The Kennesaw State University Catalog contains important information and is the official source of the university's academic programs, courses, and policies. The Catalog should be used as a guide, in conjunction with an academic advisor and DegreeWorks, in planning a course of study and in meeting requirements for graduation. See the Index for an overview of the information provided.

Catalog Rights

Degree candidates are responsible for meeting the university requirements stated in the Kennesaw State University Catalog to which they are officially assigned.

Students are initially assigned to the Catalog for the academic year in which they are admitted to Kennesaw State University, provided the student attended at least one course in the academic year culminating in a record of enrollment on the student's academic transcript.

Students who interrupt their enrollment in the university for one year or longer (three consecutive terms, including summer), must be readmitted to Kennesaw State University. When readmitted, students will be officially reassigned to the Catalog in effect when they return. They lose any previous catalog rights and must meet all graduation requirements in effect at the time of readmission.

Students who change their major will be officially reassigned to the Catalog in effect at the time of the change. They lose any previous catalog rights and must meet all graduation requirements in effect at the time of the major change.

A student may petition to the faculty to retain an old Catalog's graduation requirements. Please see the Registrar's Office for more information.

Disclaimer

This publication is not a contract. Kennesaw State University reserves the right to review and amend the content of the Catalog with respect to course offerings, degree requirements, services provided, and other subjects addressed in the publication. Every effort has been made to ensure the accuracy of the information in this publication.

Students are expected to have read and remain familiar with the contents of the Catalog. The information in this publication is provided solely for the convenience of the reader, and the university expressly disclaims any liability which may otherwise be incurred.

Welcome from the President

Dear Students:

Welcome to Kennesaw State University! You have chosen to attend a fine university, and during your years of study, it will continue to grow and improve. KSU's faculty, staff, and administration are committed to excellence in everything we do, and I am sure that you, as a student, are also committed to excellence.

What used to be Kennesaw Junior College has grown from a small two-year institution to what is today Kennesaw State University -- a comprehensive university with more than 35,000 students offering bachelors, masters, and doctoral degrees, along with a host of student-centered programs to support student life and student learning. KSU is now a destination campus, and it is an exciting place to be!

At both the undergraduate and graduate levels, KSU is first and foremost a learning community, a diverse body of people of all ages, each of whom is striving to learn and to understand more about himself or herself, the world, and the many activities and opportunities that people pursue. During your time here at Kennesaw State, you will discover many things about yourself and your world, and you will grow in ways you never imagined as you advance your capabilities and skills. I wish you well in your journey of discovery and growth.

KSU also prides itself, and rightfully so, on being an engaged learning community. Kennesaw State's students, faculty, staff, and administration engage with each other and learn from each other. Many members of the KSU family are also engaged beyond the boundaries of the campus, playing a large and growing role in business and industry, government and public affairs, and the service and support sectors, both as leaders and as active participants. There is a place for you, too!

Again, welcome to Kennesaw State! We all look forward to helping you learn, and to learning from you.

Go Owls!

Samuel S. Olens
President

KSU Today

Kennesaw State University, one of the fastest-growing members of the University System of Georgia, offers high-quality education to students throughout metro-Atlanta and northwest Georgia.

To meet the needs of today's students, Kennesaw State offers day, evening and weekend classes on its spacious suburban campus. Both traditional and nontraditional students will find programs of study to fit their lifestyles and interests.

Kennesaw State University's mission of education and service will grow with northwest Georgia.

Accreditation

Kennesaw State University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, specialist and doctoral degrees. Inquiries related to the university's accreditation by the Commission may be directed to COC/SACS, 1866 Southern Lane, Decatur, Georgia 30033-4097, telephone 404-679-4500, website: <http://www.sacscoc.org>. Questions related to admissions and the policies, programs, and practices of KSU should be directed to the university's offices, catalogs, publications, or websites.

The Commission on Colleges of the Southern Association of Colleges and Schools (SACS/COC) is the recognized regional accrediting body in eleven U.S. Southern states and in Latin America for institutions of higher education that award associate, baccalaureate, master's or doctoral degrees.

The bachelor's and master's degree programs in business are fully accredited by The Association to Advance Collegiate Schools of Business (AACSB International).
<http://www.aacsb.edu>.

The undergraduate and graduate degrees in accounting also have separate AACSB accreditation.

The undergraduate and graduate professional education programs are approved by the Georgia Professional Standards Commission for state certification, are nationally recognized by specialized professional associations (SPA's) and are fully accredited by the National Council for Accreditation of Teacher Education (NCATE).

The undergraduate music programs are fully accredited by the National Association of Schools of Music (NASM). The bachelor's program in theatre is fully accredited by the National Association of Schools of Theatre (NAST). The undergraduate programs in visual arts are fully accredited by the National Association of Schools of Art and Design (NASAD).

The baccalaureate program in nursing is approved by the Georgia Board of Nursing, and both the baccalaureate and master's nursing programs are fully accredited by the Commission on Collegiate Nursing Education (CCNE), the accrediting body of the American Association of Colleges of Nursing (AACN) at One Dupont Circle, NW, Suite 530, Washington, DC 20036-8476. www.aacn.nche.edu.

The undergraduate computer science and information systems programs are fully accredited by the Accreditation Board for Engineering & Technology (ABET). The undergraduate chemistry and biochemistry programs are nationally approved by the American Chemical Society (ACS).

Institutional Mission

Kennesaw State University Vision

Kennesaw State University will be a world-class comprehensive university recognized for its excellence in education, discovery, innovation, technology, and community engagement at all levels from local to global. The KSU experience will empower the members and graduates of the university community to have the vision, ability, and courage to transform the future.

Kennesaw State University Mission

Kennesaw State University offers high-quality and productive undergraduate, graduate, continuing education, and co-curricular programs. These include learning opportunities in architecture, the arts, business, computing, education, engineering and engineering technology, health and human services, honors experiences, humanities and social sciences, interdisciplinary studies, leadership development, the natural and physical sciences, study abroad, and other related disciplines. The University's research, scholarship, creative activities, and public service initiatives expand and apply knowledge, contribute to economic development, and improve the quality of life in local communities, Georgia, the nation, and the world.

The KSU community values open, honest, and thoughtful intellectual inquiry, innovative and creative problem solving, professionalism, expertise, collaboration, integrity and ethical behavior, engaged citizenship, global understanding, sustainability, mutual respect, and appreciation of human and cultural diversity. The University community strives continually to enhance student success, improve institutional quality, and respond to public demand for higher education.

University-Wide Competencies

Academic and Professional Expertise:

Graduates will demonstrate knowledge, skills and dispositions at an appropriate and effective level of expertise within their field of study as defined by their degree program.

Effective Communication Skills:

Graduates will communicate appropriately and effectively in written, oral, graphic, visual or interpersonal forms as defined by their degree program.

The Campus

Kennesaw State University is convenient to the greater Atlanta area and Northwest Georgia. To visit the main campus, take I-75 to Chastain Road, Exit 271, and go west on Chastain Road, about one-quarter mile. See a campus map at <http://www.kennesaw.edu/campusmaps.shtml>.

Admissions

Kennesaw State University welcomes applications from all qualified students regardless of race, sex, sexual orientation, age, religion, disability, or national origin. Admission to Kennesaw State is based on a number of factors depending upon your admission type of entry and previous educational experience. The University's admission requirements have been developed in accordance with the rules and regulations of the KSU faculty and the Board of Regents of the University System of Georgia (BOR Policy Manual 4.2. and BOR Academic Affairs Handbook 3.2). It is the responsibility of the potential applicant to review admission standards in advance to determine the likelihood of eligibility.

Applicant credentials must indicate a reasonable chance of successful completion of academic work at Kennesaw State University. Admission decisions are based on an applicant's previous record of appropriate academic preparation, academic performance, test scores, personal qualities and experience.

It may become necessary to request additional testing for a more accurate assessment of an applicant's ability to succeed, to qualify for study at the university level, or for placement. If an application file is not completed in time for such testing to be scheduled prior to registration, it may be necessary to defer the application to a future semester.

If an applicant fails to enroll for the term of application, a new application and application processing fee must be submitted. After twelve months, all documents are purged and destroyed and the entire application process, including credentials, must be repeated. Approval for admission is valid only for the term specified at the time of acceptance and does not imply that approval will be granted for a term not specified. Prior to enrollment, any changes in an applicant's record due to completion of additional course work will necessitate a new review of the application file.

Right of Refusal

An applicant's case will be reviewed to ensure the applicant meets the above noted satisfactory academic performance, good character, and good conduct requirements if an applicant: (a) is on probation, suspension, expulsion, or any other type of academic warning at any previously attended institution, (b) is ineligible to enroll at any previously attended institution, (c) is currently charged with, or has been found guilty of, any violation of academic honesty, honor code, or conduct regulations of a previously attended institution, (d) left a previous institution while there were pending charges of any violation of academic honesty, honor code, or conduct regulations, (e) is currently charged with or has been found guilty of any violation of a federal, state, or municipal law, regulation or ordinance other than minor traffic violations, including offenses for which any type of first offender status has been granted, (f) has ever entered a plea of guilty, no contest, nolo contendere, or an Alford plea, or has otherwise accepted responsibility for the commission of a crime, (g) has received any type of discharge from military service other than honorable discharge. If, after a letter of acceptance has been issued, information comes to light that shows an applicant did not meet all admission requirements, or an applicant's application contained omissions or misrepresentations, the applicant's offer of admission will be automatically revoked. If this information comes to light after the student has enrolled, the applicant's enrollment at Kennesaw State University will automatically be terminated and earned credit may be revoked.

Prior to enrollment, any changes in a student's record will necessitate a new review of the application. Any omissions or misrepresentations on a student's application for admission will automatically invalidate consideration by, acceptance to, and continuation at Kennesaw State University.

Admission Sequence

Admission to the University is primary and is a sequential prerequisite to any other program admission or departmental or athletic scholarship award.

Admission to Kennesaw State University as an undergraduate student does not automatically admit the individual to teacher education, nursing, business, engineering or other programs with internal admission criteria. Separate application processes are required for formal admission to such professional programs, and those admission decisions are often made after a prescribed amount of course work has been completed with satisfactory grades by the applicant. Details of program level admission requirements can be found in the section of this catalog that outlines degree program requirements.

Admission Procedures and Deadlines

Applications for admission and all required credentials (such as transcripts and test scores) must be submitted by established deadlines. Application deadlines are available on the KSU Office of Undergraduate Admissions website and on the KSU academic calendar. All application deadlines are subject to change. Unless otherwise noted for a specific category of applicant, the application file for admission is complete and ready for review when the Office of Undergraduate Admissions has received the following:

- A completed Undergraduate Application for Admission to Kennesaw State University submitted online with a nonrefundable application processing fee
- Official scores on all required college entrance tests (typically SAT or ACT; some applicants may also be required to have SAT II subject test scores, TOEFL scores, or placement test scores). All test scores must be sent from the testing service to KSU
- Official high school and college transcripts mailed directly from those institutions to KSU

The University reserves the right to withdraw admission, prior to or following enrollment, if the student has falsified application materials or otherwise demonstrated ineligibility as determined by the standards of the University or Board of Regents.

KSU does not discriminate on the basis of an individual's disability and is committed to providing students with full and equal enjoyment of services, facilities and goods on campus as required by law.

Upon acceptance and prior to enrollment, any student with a documented disability or special need must notify the University of any required accommodations. Please contact the Office of Student Disability Services in the Student Development Center at the Kennesaw campus (470) 578-2666 or Building A on the Marietta campus (678-915-7244).

Admission from High School

Applicants who have graduated from a high school meeting the criteria of the University System of Georgia will be considered for admission based on the Required High School Curriculum,

SAT/ACT scores, and the high school academic grade point average.

Required High School Curriculum

The Required High School Curriculum (RHSC) is a key factor considered in freshman admissions decisions. Completion of the University System of Georgia's RHSC requirements at a regionally accredited or USG recognized high school is expected of most successful traditional freshman applicants.

Course	Units	Required Course Emphasis
English	4	For the most updated information and specific course requirements, see: http://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf
Mathematics	4	Literature (American, English, World) integrated with Grammar, Usage and Advanced Composition Skills
Science	4	Algebra I/Coordinate Algebra, Geometry/Analytic Geometry, Algebra II/Advanced Algebra and a fourth unit of advanced math, or equivalent courses
Social Science	3	The 4 science units should include two courses with a laboratory component. Georgia public high school students should have at least one unit of biology, one unit of physical science or physics, one unit of chemistry, earth systems, environmental science, or an advanced placement course, and a 4th science
Foreign Language, American Sign Language or Computer Science	2	Must include one unit focusing on U.S. Studies and one unit focusing on World Studies
		The 2 units of the same foreign language must have an emphasis on speaking, listening, reading and writing. The 2 units of computer science must have a coding and programming emphasis.

Office of Undergraduate Admissions recalculates the applicant's academic HSGPA using only acceptable academic units (RHSC) while excluding other high school courses such as physical education, vocational courses, ROTC, driver's education, etc. from the recalculation. All repeated RHSC courses are calculated in the GPA. This GPA is calculated using a 4-point scale. Kennesaw State University welcomes students who have pursued accelerated high school courses and national standardization programs such as College Board Advanced Placement (AP), International Baccalaureate (IB), and College Level Examination Program (CLEP). For

information about AP, IB and CLEP college credit check on the Transfer Services website.

Freshman Admission Standards

Freshmen are recent high school graduates who will be attending college for the first time. KSU's minimum requirements for admission as a freshman include the following:

- Graduation from one of the following:
 - ◊ A regionally accredited high school
 - ◊ A high school accredited by the Georgia Accreditation Commission
 - ◊ The Georgia Private School Accrediting Council
 - ◊ A high school accredited by an approved University System of Georgia agency
 - ◊ A public school under the authority of the State Department of Education
- Completion of the 17 required RHSC units.
- High School academic GPA of at least a 2.5
- Minimum SAT or ACT scores as follow:

SAT Taken Prior to March 2016	Minimum Score
SAT I Critical Reading and Math Combined	950 (1000 for the Architecture Program)
SAT I Critical Reading	No lower than 450
SAT I Math	No lower than 450
OR: SAT Taken March 2016 or Later	Minimum Score
Redesigned SAT Total Score (on 1600 scale)	1030 (1080 for the Architecture Program)
Redesigned Reading Test Score	No lower than 25
Redesigned Math Test Score	No lower than 490
OR: ACT	Minimum Score
ACT-Composite Score	20 (21 for the Architecture Program)
ACT-English	No lower than 18
ACT-Math	No lower than 18

A freshman applicant may apply as early as the end of his or her junior year in high school. After the receipt of all required documents, (juniors should include their planned senior year subjects on their high school transcript), the Office of Undergraduate Admissions will notify the applicant of his or her admission status. See admissions.kennesaw.edu for the most current admission requirements.

Admissions is a competitive process and meeting minimum requirements may not guarantee admission.

Transfer students satisfying RHSC requirements elsewhere in the University System, will be recognized as having met those requirements at Kennesaw State University upon admission.

Alternatives for Home School Applicants and Others

Kennesaw State recognizes the choice and rights of a family to home educate their children. However, some home-educated applicants bear the burden of demonstrating through proper documentation that they meet all of the standard requirements for regular or limited freshman admission.

Home school applicants are defined as completing a high school program of study that is not from a regionally accredited or University System recognized high school and those who have not satisfactorily completed the prescribed Carnegie units of the Required High School Curriculum (RHSC) in a manner acceptable to the University System.

Nevertheless, the University System of Georgia permits home educated applicants to be considered if they demonstrate sufficient Required High School Curriculum preparedness on appropriate standardized subject matter tests. The portfolio review approach for handling exceptions for home school students waives the high school graduation requirement, the academic HSGPA requirement, and the Carnegie unit requirements of the Required High School Curriculum. These waivers are in exchange for satisfactory performance on additional standardized testing or transferable college credit, which validates college preparedness in each area of the RHSC and demonstrates a satisfactory comprehensive high school academic experience. The applicant must meet or exceed the required minimum freshmen average scores on the SAT I or ACT of the prior fall semester freshman class at KSU.

Prospective home school applicants are encouraged to contact the Office of Undergraduate Admissions at least six months prior to the planned date of entry to obtain information and direction as to how to pursue these alternatives and exceptions for admission. Refer to the Home Educated Students website for the current accepted freshman average test scores and for information regarding portfolio procedures and standardized test options.

Honors Opportunities and Dual Enrollment

Honors Opportunities

Honors Opportunities for First-Year Students

Incoming first-year students may join the University Honors Program if they have each of the following:

- a high school GPA 3.5 or higher in the 17 units of the Required High School Courses
- a composite score of 1150 or better on the Critical Reading and Math sections of the Scholastic Aptitude Test (SAT) taken prior to March 2016, or 1220 on the SAT Total

Score on the Redesigned SAT taken March 2016 or later. (The equivalent composite ACT score of 25 or higher, is also accepted.)

- an Honors application essay assessed to be satisfactory.*

Please note: Dual Enrollment Students Readmitting as First-Year Students to the Undergraduate Honors Program will adhere to the same criteria as first-year students if they have earned fewer than 15 hours of course credit. If they have earned 15-45 credit hours, they will need to have earned an

Adjusted GPA of 3.5 or better and produced an Honors application essay assessed to be satisfactory.

Honors Opportunities for Currently Enrolled and Transfer Students

Currently enrolled students may join the University Honors Program if they have

- earned at least 15 credit hours and meet the same criteria as First-Year Students
- earned 15-45 credit hours and have an Adjusted GPA 3.5 or higher
- submitted an Honors application essay assessed to be satisfactory.*

Transfer students with 15 or fewer credit hours may join the University Honors Program by meeting the same criteria as first-year students. Those who are bringing in 15-45 credit hours must have an Adjusted GPA of 3.5 or better and an Honors application essay assessed to be satisfactory.*

**The University Honors Program application can be found at <http://honors.kennesaw.edu/programs/eligibility.php>.*

Dual Enrollment Honors Program (DEHP)

The admission deadline for DEHP is typically mid-January. For the current deadline, admissions instructions, and additional program information, visit <http://admissions.kennesaw.edu/apply/dehp.php> or contact the Office of Undergraduate Admissions.

Rising high school juniors and seniors who are at least fifteen years of age at the time of enrollment are eligible for the Dual Enrollment Honors Program if they earn each of the following:

- a cumulative grade point average of 3.0 or better in their core academic course work (not electives) and are on track to complete the Required High School Curriculum AND
- a composite score of 1100 on the old SAT taken prior to March 2016, with minimum subparts of 530 critical reading and 530 math; or an equivalent of 1100 on the old SAT using a converted SAT Total Score on a 1600 scale on the new/redesigned SAT (taken March 2016 or later) with minimums of SAT Reading Test Score of 29 and Math Section Score of 560, or an ACT composite score minimum of 24 with subpart minimums of 23 English and 22 math.

To be admitted to DEHP, students must submit an online application their Move-On-When-Ready Student Participation Agreement Form; their official SAT or ACT score report, sent directly from the testing agency; and their high school transcript or homeschool portfolio. The application fee will be waived for Dual Enrollment Honors Program applicants. Prior to registration, accepted students are required to attend a mandatory KSU advising session and a

summer orientation program specifically for DEHP members. Students and parents must also sign a Policy Statement acknowledging their understanding of the academic and behavioral-conduct policies of the program. Students are accepted into the program as fall-semester entrants only. A KSU GPA of 2.0 is required to continue in the program for spring semester.

Advanced Placement Opportunities

Kennesaw State University welcomes students who have pursued accelerated academic course work while in high school or through recognized national standardized programs. Such programs include College Board's Advance Placement (AP), International Baccalaureate (IB), College Level Subject Examination Program (CLEP), and Defense Activity for Nontraditional Educational Support (DANTES).

Students may receive college credit for certain courses based on scores received in the above tests. The criteria for credit awarded under these testing programs are available on the Transfer Evaluation Services website at transfer.kennesaw.edu.

CLEP exams are administered nationally through Educational Testing Service (ETS) testing centers or through the University's Testing Center. See testing.kennesaw.edu for testing information. AP tests are given at many high schools throughout the country and qualified applicants are advised to take these tests in the spring of their senior year in high school. CLEP, IB, DANTES and AP credits do not count toward the KSU residency requirement or grade point average.

Students demonstrating satisfactory evidence of acquired knowledge from prior learning may receive course credit and hours by a departmental examination for advanced standing. Requests for institutional advanced standing examinations should be initiated with the academic department chair responsible for the course in question and must be approved by the Registrar.

Admission from Other Colleges

Transfer applicants for admission are students who have earned college credit elsewhere at regionally accredited collegiate institutions and wish to transfer to KSU in order to continue their collegiate studies.

KSU's Office of the Registrar conducts transfer evaluations and accepts transfer credit only from such accredited institutions, only in courses comparable to KSU courses or in subject fields appropriate for KSU degrees, only when the grades earned are sufficient for the transfer courses to meet KSU degree requirements, and only when the GPA for all acceptable transfer courses is 2.0 or higher.

Transfer students must make arrangements with each college previously attended, whether credit was completed or not, to have a complete official transcript forwarded to the Office of Undergraduate Admissions at Kennesaw State University.

Official transcripts are required, regardless of the applicant's wishes concerning transfer credit or financial holds and must be mailed directly from the sending institution to the Office of Undergraduate Admissions. Transcripts must be issued within one year of the application submission.

Transfer students' records will be evaluated in the same manner as Kennesaw State University resident students. Transfer students must have

1. completed 30 semester hours of transferable credit with a 2.0 cumulative GPA or above and be in good academic standing at their most recent college. Transfer applicants who have been academically dismissed from their previous institution may not enter Kennesaw State until they are fully eligible to return to their former institution, have attained good academic standing, and have a cumulative grade point average of at least 2.0.
2. Students transferring from another institution in the University System of Georgia must have satisfied any and all learning support requirements before being admitted to KSU. Transferring students who took physical education hours at one institution will not be required to duplicate those hours at KSU. However, students who took an orientation course at another institution may be required to take the KSU 1101 orientation course. All admission application deadlines cited earlier apply to transfer applicants. All of the required documents cited earlier for a complete application file apply to transfer applicants with the following exceptions:
 - High school transcripts are not required for applicants with 30 or more earned semester hours of acceptable transfer credit. (However, all college and university transcripts are required)
 - SAT or ACT scores are not required for applicants with 30 or more earned semester hours of acceptable transfer credit

Transfer Freshman Admission Standards

Applicants with fewer than 30 semester hours of acceptable transfer credit must meet the same admission requirements as recent high school graduates attending college for the first time. Also, an official transcript from each college previously attended indicating the applicant is in good academic standing must be sent directly from the sending institution to KSU's Office of Undergraduate Admissions.

Evaluation of Courses for Transfer Credit

Transfer credit is awarded in accordance with the policies of the University System of Georgia, accrediting agencies, and KSU. Transfer Evaluation Services functions as the liaison between acceptance to the university and academic advising by awarding transfer credit and applying relevant credit to the degree program. For further details regarding the transfer evaluation policy, visit the Transfer Evaluation Services website.

Eligibility for Military Transfer Credits

Transfer credit will be awarded from official AARTS, SMART, or Coast Guard transcripts utilizing ACE Guidelines. Military training and experience with a credit recommendation at the lower-division and upper-division baccalaureate degree category level is evaluated. For further details regarding Military Transfer Credits, visit the Transfer Evaluation Services website.

Special Admission Categories

In addition to traditional freshmen and transfer applicants, KSU also has a number of special admission categories.

Nontraditional-Adult Learners-Freshmen Admission Standards

Adult learners with 30 semester hours of transferable prior college credit may qualify for

transfer status. Nontraditional adult learners are those students who meet the following:

- Have graduated from high school at least five years ago or whose high school class graduated at least five years ago
- Hold a high school diploma from an accredited or approved secondary school or a GED certificate which satisfies the minimum requirements of the State of Georgia
- Have earned fewer than 30 transferable semester hours of college credit
- Adhere to Board of Regents ACCUPLACER testing and remediation policy

Applicants eligible for review in this category are exempt from the SAT/ACT and Required High School Curriculum requirements. However, nontraditional students applying in this category will be required to take the ACCUPLACER examination. Minimum scores are required for admission. As an alternative, non-traditional freshmen who have, within the past seven (7) years, posted SAT scores of at least 500 in both Verbal/Critical Reading and Mathematics if taken prior to March 2016, or Redesigned SAT of 27 on the Reading Test and 530 on the Math Section, or ACT scores of at least 21 on both English and Mathematics may provide an official

score report from the testing service to exempt ACCUPLACER testing. Support and academic services for adult learners are available through the Office of Adult Learner Programs. More information about testing can be found at testing.kennesaw.edu.

International Student Admission Standards

International students should apply online to Kennesaw State University. Application processing and other United States Citizenship and Immigration Service (USCIS) procedures for applicants on a student visa (F1) or exchange visa (J1) will be handled by the International Student and Scholar Services Office. Applications with other visa types including permanent residents will be processed by the Office of Admissions.

Kennesaw State University supports international education and the philosophy that cross-cultural understanding is vital for creating mutual respect, appreciation and understanding of diversity. The presence of international students fosters cultural exchanges, which are beneficial to the student body and to the community at large.

International students may enroll in any program of study offered at Kennesaw State University. In addition, there are on campus apartment complexes where an international student can make arrangements for living accommodations. For information, visit the Housing and Residence Life website.

Students are responsible for their own transportation needs. There is limited county bus service to the campus.

KSU has no designated financial assistance for international students. All international applicants must pay nonresident fees unless the individual receives one of the nonresident fee waivers available to international students through the Office of Admissions. As per USCIS regulations international applicants must present documented evidence that they have sufficient funds to meet their educational and living expenses.

All international students requesting admission to Kennesaw State University must submit the following credentials at least one semester prior to the semester of enrollment:

- A completed Undergraduate Application for Admission to Kennesaw State University submitted online with a nonrefundable application processing fee
- Sworn affidavit of support from the applicant's financial sponsor
- A letter from the sponsor's bank showing that funds (in U.S. dollars) are available for one year of support (for FI applicants)
- Official or certified true copies of all high school and/or college/university records with a certified English translation. International students are required to have an official evaluation of credentials done by an outside agency at the student's expense.
- International applicants may contact World Education Services, Inc. (WES) or Joseph Silny and Associates, Inc. through NACES at www.naces.org/members.htm to use the accredited credential evaluation service of either company. College transcripts should receive and course-by-course evaluation. Official transcripts and evaluations must be mailed directly from the sending institution or hand delivered in sealed college envelope. A KSU evaluation of credits will not occur until satisfactory documents are on file. It is up to the academic department as to which credits will actually apply to the degree program
- International students from non-English speaking countries must meet English proficiency requirements by meeting one of the following minimums:
 - ◊ TOEFL Internet Based Exam score of 79
 - ◊ TOEFL Paper Based Exam score of 550
 - ◊ IELTS score of 6.5
 - ◊ SAT Critical Reading Score of 450 if test was taken prior to March 2016
 - ◊ Redesigned SAT Reading Test Score of 25 if taken March 2016 or later
 - ◊ ACT English Score of 18
 - ◊ EIKEN - Pre-I
 - ◊ MELAB (Michigan English Language Assessment Battery) score of 77
 - ◊ Cambridge CAE score of 177
 - ◊ Cambridge FCE score of 177
 - ◊ Cambridge CPE score of 180
 - ◊ Pearson PTE Academic score of 58
 - ◊ Cambridge International Examinations IGCSE/O Level Exams with B or better
 - ◊ UK GCSE English Exam with B or better
 - ◊ UK GCE A-Level Exam with B or better
 - ◊ EdExcel Intl A-Levels or IGCSE English Exams with B or better
- Completion of the first two levels of English Composition college level courses with a "C" or higher at an accredited American institution
- Successful completion through Level Six of the Kennesaw State University Intensive English Program
- Official scores on the Scholastic Assessment Test (SAT), or American College Test (ACT);
- A valid Certificate of Immunization required upon enrollment, must be submitted to the KSU Office of the Registrar. Requirements are listed on their website at immunizations.kennesaw.edu
- All international students must purchase medical insurance made available through

Kennesaw State University.

To be eligible to register and remain in compliance with the Student Exchange and Visitor Information System (SEVIS), international students must have a current valid F1 visa status. An I-20 Form will be issued only upon the student's full acceptance into the University.

In order to maintain F-1 status with the United States Citizenship and Immigration Services (USCIS), international students with a student visa are required to be full-time students (minimum 12 semester hours) for spring and fall semesters, excluding summer term (unless it is the student's first term of enrollment at KSU). The University is required to notify the USCIS whenever a student's course load drops below 12 semester hours.

Upon arriving at Kennesaw State University, all international students are required to visit the International Student and Scholar Services Office and have their passports, I-20 ID, and Arrival-Departure Record copied and placed in their student file. This procedure facilitates the replacement of a lost Arrival-Departure Record and is required by the USCIS.

International transfer students from other educational institutions in the United States who are applying to Kennesaw State University are also required to have their passports, I-20 ID copy and Arrival-Departure Record copied before enrollment.

Transient Students

A student who has been enrolled in another college or university and who expects to return to that college or university may apply for temporary (one term) admission and registration at Kennesaw State University as a transient student. Transients must have all documents filed by the deadline to be considered for admission. In fairness to its degree-seeking students and because of limitations on available space, KSU must give its regular students higher priority for registration than transient students. Transient students have no guarantee that space will be available in the classes they seek and may only enroll in courses for which they qualify. Courses requiring program admission may not be available to transient students.

In addition to completing an online application for admission, which includes paying the non-refundable application fee, a prospective transient student must present

- A transient letter from the Registrar of his or her college (good for the semester of application only)
- The transient letter must indicate that the applicant is in good academic standing and grant permission for the applicant to attend KSU as a transient student. If the home institution does not verify good standing on the transient letter, the institution must also provide an official transcript indicating good standing.

It is the responsibility of the transient applicant to determine (with assistance from his or her home college) the course(s) he or she should take on the KSU campus.

Enrollment as a transient student at KSU is limited to one semester. Transient students wishing to continue at KSU beyond the initial semester of entry must reapply for admission and present a new written statement of good academic standing and permission from the previous institution's Registrar by the deadline for the term they wish to re-enroll. Transient students desiring to continue as transfer students must reapply for admission as a transfer student through the Office of Undergraduate Admissions and furnish all required documents and transcripts by the published deadline. For purpose of admission or readmission as a transient

student, the summer term will be treated as a semester. Transient status is not intended as an alternative to meeting admission standards as a degree-seeking student. Credits earned at KSU will not be considered when a transient student applies to become a transfer student to Kennesaw State University.

Non-Degree Students

This non-degree category exists for those eligible students who have previously earned a baccalaureate degree from a regionally accredited institution and who wish to enroll in undergraduate courses for personal or professional reasons. Students applying for non-degree status must submit an online application for admission, which includes payment of the non-refundable application processing fee, and an official transcript from the institution that awarded the initial degree (meeting all deadlines). Non-degree seeking students can only take courses for which they are eligible and may not be able to enroll in courses requiring program admission

Non-degree students do not qualify for financial aid, do not receive a transfer evaluation of previous coursework and are not considered degree-seeking students.

Non-degree students who later wish to pursue another undergraduate degree at KSU must meet all pertinent transfer admission requirements and deadlines and apply for admission as a transfer student in order to change status from non-degree to degree seeking.

Audit Students

Audit applicants must have graduated from high school or hold a GED. To be admitted as an auditor, the individual must complete an online application for admission, which includes payment of the nonrefundable application-processing fee; and provide an official high school transcript reflecting date of graduation, an equivalency (GED) or official transcript from an accredited college or university showing credits earned. These requirements must be submitted prior to the published deadline for the term they wish to enroll.

Audit students attend classes and may participate in course assignments but are not graded and do not receive degree credit for completing the audited courses. Students are not permitted to receive retroactive credit at any future date for their participation in a course as an auditor nor change from an audit to a credit status while enrolled in a course. In determining the student's load for fee computation, audited courses are counted at full value. A student wishing to change his/her classification from an auditor to a degree-seeking student must reapply for admission for a future term in the appropriate category and meet all pertinent requirements and deadlines.

Audited courses do not qualify for educational benefits or financial assistance under the social security laws, veterans and other federal and state programs.

Online Learners

Kennesaw State University offers fully online degree programs, certificate programs, hybrid online programs and a large selection of courses in online and mixed-model versions. Designed and taught by KSU faculty, distance learning at KSU offers high quality degree options with distance learning convenience and flexibility. For more information, visit learnonline.kennesaw.edu/.

Students Sixty-two Years of Age or Older

Citizens of the State of Georgia who are 62 years of age or older may attend Kennesaw State

University without payment of fees (with the exception of supplies, laboratory fees, special course or major fees, premium program fees, online tuition and the parking permit fee)

To be eligible for participation under this amendment to the Georgia Constitution, such persons:

- Must present a birth certificate or driver's license along with the Application for Senior Citizen Waiver to the Bursar's Office prior to registration
- Must meet all University System and Kennesaw State University admission requirements and deadlines
- Must meet all University System, Kennesaw State University, and legislated degree requirements if they are degree-seeking students

Certificate Seeking Students

Certificate applicants must meet admission requirements for their student type.

Immunizations

Prior to registration, a valid Certificate of Immunization is required to be on file in the KSU Office of the Registrar. The immunization form may be found at immunizations.kennesaw.edu. Mail immunization forms to the KSU Immunization Services, Office of the Registrar, 585 Cobb Avenue NW, MD 0116, Kennesaw, GA 30144 or fax to 470-578-9097 or email to: immunizationsvc@kennesaw.edu.

Readmission

Former Kennesaw State University students that must apply for readmission include those who have not been enrolled at KSU for three or more consecutive semesters, last attended as a transient student or are returning after academic dismissal or learning support exclusion. As well, students who wish to change their status (such as transient to degree seeking, degree seeking to non-degree) must apply for readmission. The application and all required credentials to support the applicant's admission type must be submitted by the application deadline for the term they wish to readmit.

After taking or attempting an undergraduate course for the second time, students will not be allowed to re-enroll in that class without the permission of the department chair or his/her designee. It is the sole discretion of the department chair/designee to decide if and when a student will be allowed to enroll in a class that they have taken/attempted twice. There is no obligation on the part of the chair to allow a student to enroll in a course after the student's second attempt to take the course. This limitation is in place regardless of previous grades including grades of "W" or "WF". The standing exception to this policy is for courses described in the KSU undergraduate catalog as being repeatable for credit.

Students who wish to participate in the Academic Fresh Start program must contact the Office of the Registrar to complete the Academic Fresh Start Request Form. The request must be submitted within three semesters after re-enrollment or one calendar year, whichever comes first. A student can be granted Academic Fresh Start status only one time. Once granted, the petition for Academic Fresh Start cannot be rescinded.

Lawful Presence Verification

The Board of Regents (BOR) of the University System of Georgia has implemented a policy requiring University System Institutions to verify the lawful presence in the United States of all admitted students entering Kennesaw State University who are seeking in-state (resident) tuition status. BOR Policy 4.3.4 states: "University System institution shall verify the lawful presence in the United States of every successfully admitted person applying for resident tuition status (in-state tuition).

For information regarding this requirement and how it can be satisfied, visit <http://kennesaw.edu/enrollmentservices/lawfulpresence.html>.

Resources

SAT I and II Tests	ACT Tests
College Entrance Examination Board Box 6200 Princeton, NJ 08541 or register online at www.collegeboard.com KSU's Institutional Code: 5359	American College Testing Program P.O. Box 414 Iowa City, Iowa 52243 or register online at www.act.org KSU's Institutional Code: 0833
TOEFL Exams	Send KSU Dual Enrollment Forms to:
Educational Testing Services P.O. Box 6151 Princeton, NJ 08541, USA or www.toefl.org KSU's Institutional Code: 5359	KSU Office of Undergraduate Admissions 3391 Town Point Drive, MD 9111 Kennesaw, GA 30144-5591 admissions.kennesaw.edu/
Office of Undergraduate Admissions	ACCUPLACER Exam
KSU Office of Undergraduate Admissions 3391 Town Point Drive, MD 9111 Kennesaw, GA 30144-5591 admissions.kennesaw.edu/ Phone: 470.578.6300	Kennesaw State University Testing Services testing.kennesaw.edu Kennesaw campus: 470-578-4800; Marietta campus: 678-915-3082

Appeals

Applicants who do not meet freshman admission standards are encouraged to try to improve in the area(s) they do not meet requirements prior to high school graduation by retaking the SAT or ACT and/or pulling up their grade point average. Their application will be reviewed again based on final grades and new test scores. As an Alternative Pathway to Enrollment, applicants who are not eligible to begin as a freshman are encouraged to attend another college and reapply to KSU in the future as a transfer student once they have completed all Required High School Courses and Learning Support requirements, achieved at least 30 transferable semester hours (or 50 transferable quarter hours) at appropriately accredited college(s), and obtained a

cumulative grade point average of 2.0 on all coursework attempted.

Applicants are invited to discuss their alternatives with an admissions counselor. An admissions counselor can advise applicants on an alternative pathway to enrollment as a transfer student, as well as the feasibility for success as a candidate for an admission appeal.

KSU Admissions Online: admissions.kennesaw.edu

From the admissions website, a student can submit an application or check the status of his/her application and take advantage of the online services including:

- Schedule a campus visit
- Review standards for admission to KSU
- Review FAQs
- Learn about the admissions office
- Check the status of an application
- Check on application deadlines for a particular term
- Check on current tuition costs
- Request information about KSU

It is the responsibility of the student to review admission standards in advance to determine the likelihood of eligibility.

Tuition, Expenses, & Financial Aid

Tuition and Fee Payment

Expenses include in-state tuition, out-of-state tuition, mandatory student fees, and other special fees. All fees are due and payable at the time of registration, and registration is not complete until all fees have been paid.

Cash, checks, and money orders drawn on U.S. banks and payable in U.S. dollars are accepted. Electronic checks and credit cards will only be accepted on the web. Payment by credit card will incur an additional convenience fee charged by a third-party credit card processor.

The University reserves and intends to exercise the right to withhold copies of transcripts and other student education records and/or to withdraw students who have unpaid or past due fee balances.

Students are required to pay in-state tuition and, when applicable, out-of-state tuition, for enrollment in all courses even if no credit is earned.

Per Board of Regents' policy, at Kennesaw State University all tuition, fees, or other charges are subject to change at the end of any academic term. (BOR Policy 10.2.3)

Collection of outstanding balances

Kennesaw State University reserves the right to use a collection agency and to pursue legal action in order to collect the balance of any debt. Once an account is placed in collection or legal action is pursued by the collection agency, the student will be liable for all collection fees, which will be in addition to the amount of the original debt. At this point, the student will no longer be able to pay the University directly, and any communication or correspondence with the University about such debt must be directed through the collection agency.

Tuition Rates

Per Board of Regents' policy, at Kennesaw State University all tuition, fees, or other charges are subject to change at the end of any academic term. (BOR Minutes 1938-39, p. 384). Tuition charges can vary based on state residency status and degree program. Residency status is determined by the Office of Admission at the time of acceptance.

Students are either classified as a resident or non-resident of Georgia for tuition purposes in accordance with the regulations of the Board of Regents of the University System of Georgia.

See <http://finance.kennesaw.edu/bursar/tuitionfees.php> for the latest information on tuition and fees.

As a member institution of the University System of Georgia, Kennesaw State University's tuition and fee increases are effective with the Fall semester. The Board of Regents usually approves all tuition and fee schedules for the upcoming year during their April meeting. These approved tuition and fee schedules will be made available upon receipt by Kennesaw State University. Please note that fees are subject to change at the end of any academic term without prior notice to comply with federal, state and institutional policies.

Mandatory Student Health Insurance

A mandatory insurance plan is in effect for the following student categories:

- All graduate students receiving a full tuition waiver as a result of a GRA, GTA, or GSA assistantship award.
- All undergraduate, graduate, and ESL international students holding F or J visas.
- All undergraduate and graduate students enrolled in programs that require proof of health insurance.
- All graduate students receiving fellowships that fully fund their tuition.
- International Scholars holding J visa status.

A waiver of the health insurance fee may be applied for directly with the insurer. For insurance plan and waiver information, go to: <http://finance.kennesaw.edu/bursar/healthinsurance.php>. This plan is optional for all other students.

Expenses and Fees

Additional Lab, Specialized Course Fees: These fees are charged where applicable.

Applied Music Fee: The registration fee for one 50-minute private lesson per week is \$150 per semester. Applied music fees are nonrefundable and may not be transferred to subsequent semesters.

Laboratory Breakage: Students in the laboratory sciences are required to reimburse the university on a cost basis for broken glassware and equipment.

Late Payment Fee: A \$50 late payment fee will be assessed for tuition and fee payments received after the final registration payment deadline. This fee may apply at other times as well. For specifics, contact the Bursar's Office.

Nursing Expenses: Mandatory uniforms costs \$200-\$250. A good stethoscope, watch, shoes, and other supplies costs approximately \$200-\$250. The initial testing fee is \$400. Mandatory health insurance is charged to nursing students who do not have proper coverage.

Textbooks and Supplies: Textbooks and supplies are available in the university bookstore. Although the exact cost of books and supplies will vary with courses, an estimate is \$750 per semester.

Housing Fees

Kennesaw state offers several on-campus housing options. All of our housing communities provide fully furnished rooms, individual contracts, all-inclusive rates, and high-speed Wi-Fi. All communities are in close proximity of anywhere you want to go on campus. Housing and residence life personnel offer support 24/7 and strive to make the on-campus housing experience memorable and meaningful. For more specific information, please go to <http://ksuhousing.kennesaw.edu/>.

Other Administrative Fees

Advanced Standing Examination Fee: A fee of \$60 is required for each institutional advanced standing examination attempted; no course may be attempted more than once.

Diploma Fee: A diploma fee of \$50 is required of all degree candidates and is payable at the time a petition to graduate is presented to the registrar. The fee is nontransferable and nonrefundable. It entitles the student to one diploma.

FAX Fee: There is a priority fee for electronic transmission (FAX) of unofficial transcripts or certifications forms/letters, of \$10.00 per document.

Penalty Fee for Returned Check: A penalty fee of \$25 will be assessed for each check returned by the bank.

Withdrawal/Refund of Student Fees

To withdraw from one or more classes, students must withdraw online through Owl Express.

Students dropping from classes before the end of late registration and drop/add are entitled to a 100% refund. After that date, students will be granted a percentage refund of tuition and fees only if they withdraw completely from the university. Lab, specialized course/major, and insurance fees are not refundable if withdrawal from course(s) is made after the end of late registration and drop/add.

KSU Institutional Refund Policy

The refund amount for students withdrawing from the institution shall be based on a pro rata percentage determined by dividing the number of calendar days in the semester that the student completed by the total calendar days in the semester. The total calendar days in a semester includes weekends but excludes scheduled breaks of five or more days and days that a student was on an approved leave of absence. The unearned portion shall be refunded up to the point in time that the amount earned equals 60%.

Students will receive refunds only when they withdraw from ALL of their classes and only by the schedule outlined in the University System refund policy. Students who withdraw from the institution when the calculated percentage of completion is greater than 60% are not entitled to a refund of any portion of institutional charges.

Students enrolled summer term who withdraw from second-session courses on the first day of those classes will receive a 100% refund. After the first day, no refunds will be processed. (BOR7.3.5.1)

Students should refer to the Registrar Dates and Deadlines webpage for specific dates of each refund period.

Students who do not formally withdraw, those suspended for disciplinary reasons, and those who leave the university when disciplinary action is pending are not eligible for a refund on any portion of any fee.

A refund of nonresident fees, matriculation fees, and other mandatory fees shall be made in the event of the death of a student at any time during an academic semester/summer term.

Refunds will be disbursed by the university's internet bank partner. Students may use their KSU Debit Card to select a refund payment method: electronic fund transfer or paper check. Details are available at: <http://cardservices.kennesawstateauxiliary.com>.

Registration Fee Waiver for Senior Citizens

Pursuant to the provisions of an amendment to the Georgia Constitution, legal residents of

Georgia who are 62 years of age or older on the first day of class for a term may have their standard tuition and fees waived (with the exception of supplies, laboratory fees, special course or major fees, premium program fees, online tuition and the parking permit fee). A driver's license or birth certificate together with the Application for Senior Citizen Waiver must be presented to the Bursar's Office. Details are available at: <http://finance.kennesaw.edu/tuitionclassification/waivers.php>.

Military Service Refunds & Re-enrollment

- Subject to institutional policies, full refunds of tuition and mandatory fees and pro rata refunds of electives fees are hereby authorized for students who are:
- Military reservists (including members of the National Guard) and who receive emergency orders to active duty after having enrolled in a USG institution and paid tuition and fees;
- Commissioned officers of the United States Public Health Service Commissioned Corps (PHSCC) who receive deployment orders in response to a public health crisis or national emergency after having enrolled in a USG institution and paid tuition and fees;
- Active duty military personnel and who receive an emergency reassignment after having enrolled in a USG institution and paid tuition and fees;
- Those who are otherwise unusually and detrimentally affected by the emergency activation of members of the reserve components or the emergency deployment of active duty personnel of the Armed Forces of the United States and who demonstrate a need for exceptional equitable relief (BOR7.3.5.3);
- Students who are members of the Georgia National Guard or other reserve components of the U.S. Armed Forces who are re-enrolling after having been summoned to active duty in an emergency situation are to be accorded special consideration regarding class registration, financial aid processing, payment of fees, etc., so as to expedite their re-enrollment;
- Military personnel on active duty in the U.S. Armed Forces who, before the end of their present station assignment, receive emergency orders for a temporary or permanent change of duty location who later wish to resume their education are to be accorded special consideration regarding class registration, financial aid processing, payment of fees, etc., so as to expedite their re-enrollment.

Tuition and fees awarded by scholarship or grant from an agency or authority of the State of Georgia on behalf of a student receiving a refund under this policy shall be reimbursed to such agency or authority.

Definition of Legal Residents

Individuals who enter the institution as out-of-state students but who wish to later qualify as legal residents must fill out a Petition to Change Tuition Classification form, which can be obtained on-line at kennesaw.edu/enrollmentservices/lawfulpresence.html or by contacting the Residency Officer for Kennesaw State University at 470-578-3536. A student's tuition classification is not changed automatically, and the burden of proof that the student qualifies as a legal resident under the regulations of the Board of Regents of the University System of Georgia rests with the student. A student is responsible for registering under the proper tuition classification. A student classified as out-of-state who believes that he or she is entitled to be reclassified as a legal resident may petition the Residency Committee for a change in

status. The petition must be filed no later than 60 days after the semester begins in order for the student to be considered for reclassification for that semester. If the petition is granted, reclassification will not be retroactive to prior semesters.

If there is any question in the mind of the student concerning his/her tuition classification status, application for clarification should be made immediately or not later than two weeks prior to the registration date in order to avoid delay and inconvenience of registration.

Applications should be addressed to Kennesaw State University Attn: Residency Committee, 1000 Chastain Road, Mailbox #9110, Kennesaw, Georgia 30144

Board of Regents Policies Governing the Classification of Students for Tuition Purposes and Out-of-State Tuition

USBBOR policy on classification of students for tuition purposes and out-of-state tuition waivers may be found in the BOR Policy Manual section 4.3.2 and 7.3.4.1 at usg.edu/policymanual.

Financial Aid

Kennesaw State University is committed to ensuring that a post-secondary education is accessible to qualified students. In order to accomplish this commitment, the Office of Student Financial Aid subscribes to the following goals to assist students in paying for their educational investment:

- Evaluate the family's financial ability to pay for educational costs;
- Distribute limited resources in an equitable manner; and
- Provide a balance of gift aid and self-help aid.

A wide variety of financial aid programs from scholarships, grants, employment, and loans are available to help students with educational costs. Most awards are based on financial need while some are awarded in recognition of merit or achievement. Financial Aid is awarded based on full-time enrollment status (12 hours). Financial Aid packages for students enrolled less than full-time may require adjustments. Eligibility for awards varies with enrollment status.

For more information, visit the Financial Aid Office, view the website at financialaid.kennesaw.edu, or call the automated telephone system at (470) 578-6074, fax at (470) 578-9096, email at finaid@kennesaw.edu or write to:

Office of Student Financial Aid
Kennesaw State University
585 Cobb Avenue, NW MD #0119
Kennesaw GA 30144-5591

Determination of Need-Based Awards

Awards based on need are determined by a process called financial need analysis. The analysis is standardized by the U. S. Department of Education (USDE) using a financial formula called Federal Methodology. The Free Application for Federal Student Aid (FAFSA) is the application that is required to begin this process. The electronic FAFSA is the easiest and quickest way to apply. The processing time for USDE is approximately four days. The electronic FAFSA may be accessed on our web site at financialaid.kennesaw.edu or www.fafsa.gov. Prior to completing the

electronic FAFSA, students and parents of dependent students should obtain an FSA ID at <http://fsaid.ed.gov/npas/index.htm>

When completing the electronic FAFSA for KSU attendance, use the Federal Title IV Code of 001577. KSU will receive your FAFSA information electronically. Students must reapply annually to qualify each academic year.

Need-Based Award Application Procedures

Need-based awards include grants, employment, loans, and some scholarships. It is advisable to complete the FAFSA early. The FAFSA is available on October 1 for the award year that starts each fall semester. The priority date for receipt of the FAFSA at KSU is May 1 of each year. FAFSAs received by the priority date with all requested documents submitted by the student and reviewed by the Financial Aid Office will be awarded first. New applicants must also apply for admissions through the Office of Admissions for a degree program.

When the FAFSA is analyzed by the U. S. Department of Education, the result is called the Expected Family Contribution (EFC). The EFC is the amount that the family should be able to contribute to the student's cost of attendance (COA). COA is the amount of direct cost (e.g., tuition, fees, room, board, and books) and indirect cost (e.g., transportation and personal expenses). Need-based financial aid is awarded to help the student with need (i.e., COA minus EFC).

Federal Pell Grant

This is a federally funded program that provides need-based grants to undergraduate students without a previous bachelor's degree. The application is the Free Application for Federal Student Aid (FAFSA). Eligibility is based on the Estimated Family Contribution (EFC) and the Cost of Attendance (COA). Students receive their EFC information on the Student

Report (SAR) after the submitted FAFSA is processed. The EFC range for Federal Pell Grant eligibility is 0 to 5328. The awards range from a maximum of \$5920 (0 EFC) per year to a minimum of \$606 (5328 EFC) per year for full-time enrollment. Pell Grant is prorated according to enrollment by each term. Students receiving the Federal Pell Grant may also be eligible for other types of financial aid. Students are limited to one full-time award each academic year. Students are also limited to twelve full-time semesters of payment under the Federal Pell Grant program.

Federal Supplemental Education Opportunity Grant

This federally funded program is designed for undergraduate students without a degree with exceptional need seeking their initial degree. A student must have been awarded the Federal Pell Grant in order to receive this grant. Early FAFSA application is encouraged. Priority for these awards is given to those who file by KSU's priority filing date, March 1st.

Student Employment

Federal Work Study (FWS) Program

The program provides part-time jobs for undergraduate and graduate students who demonstrate financial need based on the Free Application for Federal Student Aid (FAFSA). FWS gives the student an opportunity to earn money to help pay for educational expenses

while working on campus or in community service work. Early application with the FAFSA is recommended. Awards are generally made on a first come, first serve basis.

Institutional Employment

There are a limited number of part-time jobs available in each division of the university. Funds for these jobs are provided by the department or college that employs the student. Interested persons should contact the particular division or department of the university or the KSU Career Services Center for information.

Career Services

The Career Services Center maintains a listing of full-time and part-time off-campus jobs for students who need assistance in locating off-campus employment. Regular listings are posted on the online job postings at: careerctr.kennesaw.edu. For more information, contact the director of career services.

Student Loan Awards

Federal Stafford Loan-Subsidized

The Federal Government guarantees low-interest loans made to qualified students. Students may apply for this loan by completing the Free Application for Federal Student Aid (FAFSA). All loans are provided by the U.S. Department of Education. Students are allowed to select their lender and loan amount up to their award maximums. Eligible freshman may borrow up to \$3,500 per year, while sophomores (30+ earned hours) may borrow up to \$4,500 per year. Juniors (60+ earned hours) and seniors (90+ earned hours) may borrow up to \$5,500 per year. The student must be enrolled in at least 6 hours each term to receive a Federal Subsidized Stafford Loan. The amount of loan eligibility is based on need as determined by the FAFSA and the cost of attendance.

Subsidized indicates that the federal government will pay the loan interest while the student is enrolled in school.

Interest will accrue during the six months following graduation or when the student ceases to be enrolled at least half time for all new Subsidized Loans made between July 1, 2016 and July 1, 2017. The current rate of interest is fixed at 3.76%. The origination fee for the Stafford Loan is 1.069% if disbursed prior to October 1, 2017. Funds are disbursed to the student through the university in two installments. Repayment begins six months after the student ceases to be enrolled at least halftime. Students are allowed 10 years to repay the loan. For the most up to date information on interest rates and loan fees, please visit: studentaid.ed.gov/types/loans/interest-rates.

Federal Stafford Loan-Unsubsidized

This loan is available to dependent students up to \$2,000 per year (above the amount of eligibility for the Subsidized Stafford Loan). This loan is also available to independent students who choose to borrow above their Subsidized Stafford eligibility or for dependent students who are not eligible for a Subsidized Stafford Loan. Students borrowing through the Unsubsidized Stafford Loan Program are responsible for the interest on the loan.

The current rate of interest is fixed at 3.76% for undergraduate students and 5.31% for

graduate students. The origination fee for Stafford Loans is 1.069% if disbursed prior to October 1, 2017. Funds are disbursed to the student through the university in two installments. The amount of eligibility is based on the dependent or independent status of the student and the student's need. The application procedures and fees are the same as the Subsidized Stafford Loan Program. The student must be enrolled in at least 6 hours each term to receive a Federal Unsubsidized Stafford Loan. For the most up to date information on interest rates and loan fees, please visit: studentaid.ed.gov/types/loans/interest-rates.

Federal PLUS Loan

This program is available to parents of dependent students. Parent borrowers may borrow up to the cost of attendance (at KSU) minus other aid.

The rate of interest is fixed at 6.31%. The PLUS Loan has a federal origination fee of up to 4.276% for loans disbursed prior to October 1, 2017. A credit check is required for a PLUS credit approval. If a parent's PLUS loan application is denied, federal regulations allow the student to borrow additional Unsubsidized Stafford Loan funds. The student can then request additional unsubsidized loan funds. For the most up to date information on interest rates and loan fees, please visit: studentaid.ed.gov/types/loans/interest-rates.

Emergency Loan Program

Tuition and Fees and Personal Loans

The Emergency Loan Program is designed to provide temporary assistance to students during their matriculation at KSU. An emergency loan for in-state tuition and fees or an emergency personal loan for mitigating circumstances that produces a hardship may be available to currently enrolled students. The student must be currently enrolled and be in good academic standing (2.0 GPA for undergraduate students and a 3.0 GPA for graduate students). A maximum of three tuition and personal loans are allowed while a student is enrolled at KSU. A KSU student is allowed only one such loan per academic year. (An academic year is defined as the first day of class in August through the last day of finals in July.) A student is ineligible to receive an additional emergency loan if the student received such a loan the last semester attended. Students may not request both a tuition and fees loan and a personal loan in the same term. Students who need emergency funds for in-state tuition and fees or for personal circumstances should complete an application online on the Financial Aid website on the specified date. Funds for emergency loans are limited. Loans are made on a first come, first serve basis.

A service charge of \$10 will be added to the tuition and fees and/or the personal loan. The loan must be repaid within 45 days. If it is not repaid, a \$25 late charge will be added to the emergency loan. If a student is late paying an emergency loan, the student is considered delinquent in payment and is no longer eligible for any emergency loans during their academic career at KSU. Students will not be allowed to register for the following semester if they have not repaid their emergency loan.

Monies for this fund have been received from the following sources:

- General Dean Beggs Memorial-Established by the students of Kennesaw Junior College in 1967 to honor the memory of their fellow student, General Dean Beggs.
- James V. Carmichael Memorial

- Phillip B. Rice Memorial-Established in memory of Phillip B. Rice
- Kennesaw State University Civilian Club
- Kennesaw State University Women's Club
- The Southwest Women's Club
- Marietta Civilian Club
- John L. Dees Memorial
- Smyrna Lions Club
- Betty H. McNiece Memorial-Established by Kennesaw College in 1984 to honor the memory of an employee, Betty H. McNiece
- Kennesaw State University Rotary Club
- Student Activities Budget Advisory Committee

For more information on the Emergency Loan Program, please visit: <http://financialaid.kennesaw.edu/types-of-aid/loans.php>.

Alternative Loan Program

Alternative or Private student loans are different from federal student loans in that they are not guaranteed by the federal government, require a credit check, and often a co-signer.

Loan approval, interest rates, and repayment requirements are prescribed by the lender. Additional information and application procedures are available from the Office of Student Financial Aid or the lender. Student must maintain satisfactory academic progress and must complete a FAFSA for our office to certify an alternative loan.

Merit-Based Awards

HOPE Scholarship Program

The Georgia HOPE Scholarship is a state-funded scholarship program from the Georgia Lottery for Education. Its purpose is to assist Georgia students in attending eligible Georgia postsecondary institutions to increase academic achievement, to keep the best and brightest students in Georgia, and to expand educational opportunities beyond high school to all Georgians.

Qualifications for the HOPE Scholarship

To be eligible for the HOPE Scholarship, you must meet the following requirements:

- Must complete an application - GSFAPPS or FAFSA;
- Must have at least a 3.0 HOPE GPA, which includes all college level coursework attempted since high school and from any institution attended;
- Must have attempted less than 127 hours;
- Must have not reached their HOPE Expiration Date; and
- Must be a final HOPE Scholar if less than 30 attempted hours.

HOPE Scholars

If you recently graduated from high school, you can only be awarded HOPE Scholarship after Georgia Student Finance Commission (GSFC) has evaluated your high school transcripts. After noting that you are a HOPE Scholar, you may contact our office by email if not awarded HOPE at KSU.

If you are not a HOPE Scholar at the time of high school graduation, you may earn the HOPE Scholarship by achieving a 3.00 HOPE GPA at the 30, 60 or 90 attempted hours. If you have a 3.00 HOPE at one of these benchmarks, please email our office.

HOPE GPA Reviews

All students must maintain a 3.00 HOPE GPA at their 30, 60 and 90 attempted hours and at the end of every Spring semester.

Zell Miller Scholarship

The Zell Miller Scholarship was created in March of 2011 for Georgia's highest performing students. To learn more about the requirements for the Zell Miller Scholarship, please go to: <http://financialaid.kennesaw.edu/types-of-aid/zell-miller.php>. Students are determined initially to be eligible for the Zell Miller Scholarship by the Georgia Student Finance Commission (GSFC). Students can check their status for the Zell Miller Scholarship, by checking their HOPE GPA on www.GAcollege411.org. Students will only be awarded the Zell Miller Scholarship after KSU receives confirmation of their status from GSFC.

Applying for the Zell Miller Scholarship

- To apply for the Zell Miller Scholarship, students must complete a GSFAPPS or the FAFSA.
- To be eligible for the Zell Miller Scholarship, you must meet the following requirements:
 - ◇ Must complete an application - GSFAPPS or FAFSA;
 - ◇ Must be confirmed as a Zell Miller Scholar by GSFC;
 - ◇ Must have at least a 3.3 HOPE GPA, which includes all college level coursework attempted since high school and from any institution attended;
 - ◇ Must not have reached the Zell Miller Expiration Date; and
 - ◇ Must have attempted less than 127 hours.

If you believe you should be a Zell Miller Scholar and have confirmed your status with GSFC by checking your HOPE GPA, please email our office.

Zell Miller GPA Reviews

All students must maintain a 3.3 HOPE GPA at their 30, 60 and 90 attempted hours and at the end of every Spring semester.

HOPE for GED Recipients

Legal residents of Georgia who earned a General Education Development (high school equivalency) diploma awarded by the Georgia Department of Technical and Adult Education after June 30, 1993 may receive a one-time \$500 HOPE award. This award can be used toward tuition, books, and other educational costs at an eligible public technical institute or public or private college/university in a degree, diploma, or certificate program.

Full-time enrollment is not required. Students must use their GED HOPE eligibility within 24 months of the date of the GED diploma. Military personnel have 52 months to exercise eligibility. Students receiving this award may also qualify for other HOPE programs.

Institutional Scholarship Awards

Several privately supported scholarships for undergraduate students and fellowships for graduate students are available at Kennesaw State University. These awards are normally merit-based but some are need-based. A complete list of available scholarships and fellowships is located at kennesaw.edu/scholarships. The majority of applications are available from November through March for the following academic year.

Disbursement Procedure

After completing the FAFSA or the GSFAPPS application, financial aid funds will be disbursed to registered students in the following procedure:

Step One: Students will receive a notification of a financial aid award letter through the school-assigned email address. Students must then access Owl Express to view their award letter. Any awarded grants or scholarships (including HOPE scholarships) are automatically accepted for the student. New students who want to accept an offered student loan must go to the financial link on their OWL Express account to accept the loan/s. The student must read, accept and submit the Terms and Conditions to be able to accept the loan. Then, the tab to accept the award offer will become a clickable link.

Step Two: Financial aid funds (Pell, SEOG, HOPE, Scholarships, and Loans) are applied to the students' account on the dates indicated at financialaid.kennesaw.edu. Students receiving other types of assistance or external assistance should check with the cashier in the Bursars Office to determine the availability of such funds. Funds earned from employment are disbursed to student accounts bi-weekly.

Step Three: At the conclusion of late registration and the drop/add period, students will receive the balance of the semester award after tuition, fees, books and supplies are deducted. Students must indicate their choice through their Higher One Account. Students can select one of the following: a check from Higher One, have funds deposited to the students Higher One debit card, or have funds transferred to the student's designated bank.

Satisfactory Academic Progress Standards Policy

Federal regulations, HEA Sec. 484(c), §668.16, 668.34, require all schools participating in Title IV federal financial aid programs to have a Satisfactory Academic Progress (SAP) policy that conforms to the requirements detailed below. These requirements apply to all students as one determinant of eligibility for financial aid.

- Your SAP status is based on your entire academic record, at all schools attended (includes all transferrable hours), regardless of whether you received financial aid.
- SAP is calculated each semester after grades have been posted to academic history by the Registrar's Office.
- Students can view their SAP Status at any time via Owl Express. Students who are put on a warning or failure status are notified via their student email address and mailed a letter via US Mail to their mailing address on record.
- If after the first term of attendance you are not making SAP, you will be put on a Warning status and allowed to keep aid for one term. Your continued eligibility will be determined after the next term checkpoint.
- If your SAP status is Failure after the check is performed, you will not qualify for

financial aid for the following term.

- If your SAP status is Failure and you cannot mathematically attain SAP requirements following the next term, an appeal will not be permissible. Documented mitigating circumstances may allow continued eligibility on a case-by-case basis and will require an academic plan.
- A student may appeal their SAP Failure status only twice during their academic career at KSU. Documented mitigating circumstances may allow additional appeals on a case-by-case basis.

Quantitative and Qualitative Requirements

Quantitative Requirement - The quantitative requirement has two parts:

- A maximum timeframe
- A required completion ratio

Undergraduate Students

Maximum time frame (maximum attempted credit hours) - You must earn your degree before reaching 185 attempted credit hours, which includes transferrable credits attempted at any school prior to and while enrolled at Kennesaw State University (KSU). Students who are seeking a second undergraduate degree different from their first degree may be granted additional hours to complete the second degree requirements. Note "Determining Maximum Time Frame" below.

Once you reach the maximum attempted credit hours, you are no longer eligible for financial aid as an undergraduate student. Federal regulations stipulate that the maximum time frame for an undergraduate student cannot exceed 150% of the published length of the academic program.

Completion Ratio - You must complete and pass at least 67% of all credit hours you attempted. Courses earned include grades of A, B, C, D, or S. Courses attempted include any course in which grades of A, B, C, D, F, W, WF, I, S, U or IP are given.

Graduate Students

Maximum time frame - To determine the maximum time frame, multiply the total hours required for the degree by 150%. As an example, if the program required 33 hrs. \times 150% = 50hrs. This includes credits attempted at any school prior to and while enrolled at Kennesaw State University (KSU).

Completion Ratio - You must earn at least 67% of all attempted credit hours.

Qualitative Requirement - The qualitative requirements sets a minimum Cumulative Grade Point Average for all students. Each student must maintain a 2.00 GPA each term to remain in good academic standing at KSU. The cumulative GPA includes grades of A, B, C, D, F, WF and I. The cumulative GPA, which is determined by the Registrar's Office processes, will be checked each term for SAP.

- *Undergraduate Students* - The cumulative GPA requirement is 2.00 for each term.
- *Graduate Students* - The cumulative GPA requirement is 3.00 for each term.

Policy Details

When is SAP determined?

- *Initial Review* - You are considered to be meeting SAP during your first KSU term.
- *End of Every Semester Review* - Your SAP status is calculated at the end of each semester, after grades are posted to your academic history by the Registrar's Office.

What happens when you do not meet the requirements?

- You are no longer eligible for financial aid - including work study, loans, grants or scholarships. If you're on a Warning Status - eligibility may continue (note below).
- Because you do not qualify for financial aid, you must pay your tuition and fees by the payment deadline or your registration will be cancelled by the Bursar's Office.

Maximum Time Frame (maximum attempted credit hours) - When you have attempted the maximum credit hours, you are no longer eligible to receive financial aid.

Is there extended eligibility for a 2nd bachelor's degree? - Yes. You may attempt a total of 150% of the hours needed to complete your first degree plus 60 additional hours. The standard is $123 \times 150\% = 185 + 60 = 245$ attempted hours.

Is there extended eligibility for a 2nd master's/graduate degree? - Yes. You may attempt a total of 150% of the hours needed to complete each degree.

Low Completion Ratio - There are two statuses for low completion ratio before your eligibility for financial aid is cancelled. Probation status is only allowed for one term.

- *Warning Status* - The first time you fall short of meeting the required completion ratio, your status is Warning. You remain eligible to receive financial aid while in warning status. If placed on "No Progress" status (note "No Progress" subheading), the student does not receive a Warning Status but goes to Failure Status immediately (note below).
- *Failure Status* - After attending one semester on Warning status, if you do not meet the required completion ratio, your status becomes Failure Status. You are no longer eligible to receive financial aid until the required standards are met. You must successfully appeal to regain eligibility.
- *Probation Status* - After being placed on a Failure Status, AND a student has successfully appealed, and financial aid has been reinstated, the student is eligible to receive financial aid. This status is only for one term and quite often will carry conditions and/or stipulations for continued eligibility.

How do you regain eligibility?

- *SAP Appeal* - If extenuating circumstances during a specific term of enrollment prevented you from meeting the requirements, you may file a SAP Appeal.

Appeal Requirements:

- A typewritten explanation of extenuating circumstances associated with Failure Status. Indicate how these circumstances have changed so that you can comply with regulations in the future. Attach supporting documents to corroborate extenuating circumstances mentioned in the letter.

- Include a "student plan of action" for academic improvement. This requires that you meet with your Academic Advisor and receive a plan for getting back in good academic standing.
- Attach at least one letter of support from someone that can substantiate the extenuating circumstances. This individual should not be a family member. Examples would include a medical doctor, clergy, professional, etc.
- Attach the SAP Appeal form.
- The appeal form must be provided to the Financial Aid Office within the prescribed dates as noted on the SAP Appeal Form. Failure to provide these within the prescribed dates will result in a delayed determination.
- An objective committee, composed of selected individuals outside the Financial Aid Office, determines whether the appeal is approved. The decision of the Appeals Committee is final and cannot be appealed further.

Appeal Denials or Non-appeals - If you are denied an appeal or you decide not to appeal, you must complete the necessary hours and earn the appropriate grades. Once you have reached the prescribed standards you become eligible to receive financial aid.

You change from undergraduate to graduate - If you reach Failure Status as an undergraduate, and then are admitted to a graduate degree program, you will be eligible to receive financial aid as a graduate student. You must be in a degree-seeking status and fully accepted into the graduate program.

Academic Circumstances that Affect Your Status:

- *Changes in major, double majors or minors* - may cause you to reach your maximum attempted hours and lose your eligibility before earning a degree.
- *Incomplete grades, missing grades, failing grades, course withdrawals* - all reduce your completion ratio, because they are counted as attempted, but not earned credits. They also count against your maximum attempted hours.
- *Repeated courses* - count as attempted credit hours each time you register for them. They also count against the allowed maximum. This can also reduce your completion ratio because repeated credits count as earned credits only once. NOTE: The U. S. Dept. of Education allows only one retake for Title IV credit.
- *Academic Fresh Start* - count against your maximum attempted credits, and also lower your completion ratio because the credits count as attempted but not earned.
- *Transfer credits, credits taken while cross-registered, enrolled in study abroad, transient study* - count toward your maximum attempted credits and your completion ratio. NOTE: Credits count as attempted, but not earned, until your official transcript is reviewed and processed by the KSU Registrar's Office. This could cause you to be in a Failure Status.
- *Remedial courses* - count as attempted and earned credits and are included in the GPA calculation.
- *Late posted grades or grade changes* - Once notification is received from the Registrar's Office of grade changes, the SAP status will be recalculated.
- *Dismissal and Return* - students who are suspended academically or choose not to attend because of SAP Failure will not be automatically eligible for financial aid upon

their return. Student must meet both qualitative and quantitative standards of SAP. If below standards, a student must appeal or use means other than financial aid for educational expenses. Absence does not restore eligibility for financial aid. It remains the responsibility of the student to be knowledgeable of their SAP standard when returning to school after dismissal or choosing not to return because of SAP Failure.

- *Summer Term Courses* - all hours attempted and completed in the summer terms are treated as any other semester hours in determining SAP status. SAP will be checked following the summer term as well.
- *Audit Courses* - students are not eligible to receive financial aid for audit courses. Audited courses are not included in hours attempted or earned for SAP determination.
- *Students pursuing dual bachelor's/master's degrees* - Students who are pursuing dual degrees are subject to the maximum time frame rules but may be reviewed on a case by case basis by the Office of Student Financial Aid.

The Office of Student Financial Aid reserves the right to review denied appeals, cumulative GPA's and completion rates on a case by case basis.

Other Financial Services

Veterans' Benefits

The university is on the approved list of the Georgia State Approving Agency for the training of veterans, disabled veterans, and the children and widows of deceased/disabled veterans who are eligible for benefits under the G.I. Bill.

Students using Chapter 33 (Post 9/11) benefits under the G.I. Bill are required to pay (by the final payment deadline) any tuition and fees not covered by the VA. Students using Chapter 30, Chapter 1606, Chapter 1607, or Chapter 35 benefits under the G.I. Bill are required to pay all fees as regular students, since they are paid benefits directly through the Veterans Administration.

KSU and the VA do not have an agreement to process tuition/fee waivers; therefore, failure of the VA to pay students in a timely manner does not eliminate or delay a student's financial responsibility to Kennesaw State University. Each VA beneficiary should make financial preparation for at least one semester because benefit checks are sometimes delayed.

Eligible veterans and the children and widows of veterans must make application to their regional Veterans Administration Office. The Veterans Resource Center can assist with the application process. It is the student's responsibility to contact the Office of the Registrar at the time of acceptance to the university. Certain requirements must be met before students may be certified for noncredit remedial courses for VA payment purposes.

Veterans who wish to use Vocational Rehabilitation benefits must contact the VA Regional Office to be assigned a counselor to help with the application process. All other benefits can be applied for on-line at www.gibill.va.gov. Students in training under the G.I. Vocational Rehabilitation program should check with the University Business Services Office regarding the handling of their account for fees, supplies, etc.

Students attending on the G.I. Bill are certified for VA benefits only for those courses required in their particular programs of study. Courses taken for audit are not payable by the VA. Such students must maintain Kennesaw State University standards for academic performance. Those

students who are academically dismissed from school will have their benefits interrupted. Upon readmission and re-certification for benefits at Kennesaw State University, the VA will decide if further benefits may be paid for continuation of the program in which the academic deficiency occurred.

Current VA standards require that students attend class and that benefits be terminated when the student has been suspended for academic or disciplinary reasons. Since VA regulations are subject to periodic change, it is the student's responsibility to keep up to date on requirements for VA benefits while in attendance at Kennesaw State University.

Any veteran or dependent wishing to use the G.I. Bill benefits must contact the VA Coordinator. The office of the VA Coordinator is located in the Office of the Registrar.

Computing and Information Resources

Technology is increasingly an integral part of a student's education. In addition, many student services and information are delivered via technology. To provide the KSU student with a quality education delivered most conveniently, technology is used as an essential part of instruction, for student access to educational materials, and for the delivery of student services.

A technology fee is collected each term to provide students with improved technological resources including: greatly enhanced access to the internet; general and academic -specific software packages delivered online via virtual computing labs; training in the use of computer and audio visual technology; extended computer laboratory hours; electronic study rooms in the Kennesaw Campus library, and extended hours for technical support for campus applications.

The Kennesaw State University Website exists to assist students with course registration, their viewing of grades, and access to the learning management system. In addition, the KSU Website delivers quality mobile content for smartphones and tablets. Each year brings new technology, creative uses of technology on campus, and additional services to meet growing needs.

Mandatory KSU E-Mail Account

KSU generated e-mail accounts are the official means of communication with students. Instructions can be found at <http://www.kennesaw.edu/myksu/>.

KSU's Chief Information Officer & Vice President of Information Technology

The Chief Information Officer (CIO) & Vice President of Information Technology provides leadership in the continuing advancement of information and instructional technology. This position oversees the operations of information technology, which includes the University Information Technology Services division and the technical infrastructure of the KSU Library System.

The KSU Library System

The mission of the Kennesaw State University Library System is to provide excellent services and resources that directly support the University's efforts to become a world-class comprehensive university. Essential to achieving this mission is a Library System that selects,

organizes, presents, and preserves resources for the KSU community of faculty, students, and scholars.

Librarians are available to assist students with research via the walk-in Research Clinics at both the Kennesaw and Marietta Campuses, in "The Hive" at the Marietta Campus, via 24/7 chat services, and through specialized one-on-one research consultations. Support is also available via text (SMS messages) at (470) 578-6547 and telephone (470) 578-6325. Graduate students may seek assistance from a graduate-level librarian who holds an advanced graduate degree or has specialized training. Library Instruction classes are also provided for students and faculty. The library's online Research Guides provide additional information about the library's numerous journals, databases, services, and resources.

KSU students and faculty have borrowing privileges not only from the KSU Library System but also from all of the member institutions of the University System of Georgia as well as the Atlanta Regional Consortium for Higher Education (ARCHE). Through the Super Search discovery tool, students can instantly access millions of resources, including books, ebooks, journals, databases, videos, and government documents. Mobile versions of the library catalog and databases are available. Interlibrary Loan services may be used for items not owned by one of the participating Georgia libraries.

The Library System hosts the *DigitalCommons@Kennesaw State University*. The Digital Commons is a digital resource for KSU's intellectual and creative out-put. With the increase of KSU's graduate programs, the Library System uses the Digital Commons to self-publish dissertations, theses, and capstone projects and make them available via the web. These resources are fully searchable by keyword or author and are indexed by major search engines such as Google Scholar.

The Library Systems' Copyright Management Center is intended to assist Kennesaw faculty, staff, and students in working and complying with copyright issues, specifically in balancing the rights of copyright holders with the exercise of fair use for educational purposes.

During the fall and spring semesters, the Kennesaw Campus Library is open 95 hours each week, with extended hours during exams. The Marietta Campus Library is open 85 hours weekly with extended hours during exams. Both libraries are open seven days a week. PC computers are available in the Information Commons on the first floor of the Kennesaw Campus Library. Students can check out laptops for library use; they are available at both locations. The Kennesaw Campus Library also has iPads available for student checkout.

Both individual and group study spaces are available at both libraries. In January 2016, the Kennesaw Campus Library reopened the newly renovated OwlSpace on the first floor. This space is a "noisy" community space where students are free to collaborate and work on group projects. OwlSpace also includes MAC computers, multiple presentation rooms, wireless service, and a state of the art data wall. The Graduate Library, located on the third floor, offers a quieter study area containing 144 cubicles as well as seven glassed-in study rooms for quiet group study, a room for graduate research assistance, and a room for making copies and viewing microfilm.

The Kennesaw Campus Library houses a partial Federal Government Documents Depository for the Sixth Congressional District. This library branch also supports the Performing Arts Library (located in the Wilson Building), the Teacher Resource and Activity Center or TRAC

(located in the Bagwell College of Education), and the Paulding Campus of the Georgia Highlands College Library. For more information about the libraries visit our webpage, library.kennesaw.edu.

University Information Technology Services (UITS)

University Information Technology Services (UITS) provides KSU with the technical resources for students to carry out scholarship, academic collaboration, research, and innovation. Students can expect the state of the art technology they require for learning management, research and study, course registration, in addition to university classrooms fully equipped with modern audio-visual technology.

Students are assigned a KSU email account, personal web space, and cloud file storage. Students are also eligible to participate in online and face-to-face training sessions for commonly used software, multimedia development, production assistance and information security.

Student software applications are accessed via a single sign-on authentication with one login ID (NetID) and one password. Student Help Desks with extended hours, telephone and email support, and walk-up services are available at the Kennesaw and Marietta campuses to answer any questions and provide technology advice. Wireless access is available on all campuses and continues to expand as the University grows.

UITS maintains both traditional computer labs with printing and copying services as well as Virtual Labs that allow students to use productivity- and academically specific-software at home on their own devices.

UITS AV Circulation is a free service provided to students for academic and "Not for Profit" usage on both the Marietta and Kennesaw Campuses.

Examples of available equipment include items such as: HD video and still DSLR cameras, professional video production cameras, microphones and lighting equipment, tripods, PA systems, data projectors and projection screens. Walk-ins are welcome; however, advanced reservations are preferred to ensure item availability. Reservations may be made in person or online at avcheckout.kennesaw.edu

The rules for use of all campus technology and telecommunications equipment, including telephones, computers and fax equipment, are found on the KSU web site at policy.kennesaw.edu/policy/information-technology. Use of any of these facilities or services implies an understanding of and compliance with these policies.

Visit uits.kennesaw.edu to learn more about the technology services available for students and to find contact information and operation hours for the KSU Service Desk

Academic Policies

Student Responsibility

Students are expected to have read this section of the catalog and to be generally familiar with academic rules. Students are expected to consult this section of the catalog and follow the procedures that are outlined herein when the appropriate time in their academic tenure approaches. For example, students who are within a year of graduating should review the graduation section and comply with the time table for petitioning to graduate.

In a pedagogical setting, students are expected to develop the ability to read and follow instructions as part of their educational experience. Academic advisors are available to help students interpret what they've read and to encourage appropriate actions. However, it is the student's responsibility to ask questions when in doubt, and to seek out information from official sources rather than to allow rumor to dictate actions.

Student Records

In accordance with the policy of the Board of Regents of the State of Georgia and under the provisions of the Family Education Rights and Privacy Act of 1974 (FERPA), Kennesaw State University maintains various educational records for each matriculating student.

These records are considered confidential and will not be released for use outside the institution without the written consent of the student. Exceptions as authorized by the Act are noted below.

Program and Course Requirements

It should be noted that program and course requirements and university policies are subject to change without advanced notice. Changes in policy and requirements enacted by the Board of Regents take precedence over existing university policies and requirements. The University will make reasonable efforts to accommodate students affected by such changes but reserves the right to determine where and to what extent it will grant exceptions to new policies and requirements. In cases where courses are deleted, students must substitute courses deemed acceptable by the faculty or chair responsible for the degree program in question.

Directory Information

The items listed below are designated as "Directory Information" at Kennesaw State University and may be released for any purpose at the discretion of Kennesaw State University.

- student's name
- major field of study
- dates of attendance
- degrees awarded
- participation in officially recognized activities or sports
- weight and height of athletic participants

Directory information will be withheld if requested by the student. To withhold directory information, the student must complete the Release of Directory Information form and mail the

request to the Office of the Registrar, 585 Cobb Avenue, MB #0116, Kennesaw, GA 30144 or hand deliver the request to the Office of the Registrar located in Kennesaw Hall or email the request to registrar@kennesaw.edu

Students should consider very carefully the consequences of any decision to withhold "Directory Information." Choosing the item "Student Confidentiality" will result in the exclusion of all student record information, including student name/address from printed materials (i.e. commencement program). Informing Kennesaw State University not to release "Directory Information" means any future requests for such information from non-institutional persons or organizations will be refused.

Student Email

The official means of communication between the university and students is the KSU student email. Students are responsible for information sent to their university email accounts.

Telecommunications Policies

The rules for use of all telecommunications equipment, including telephones, computer and FAX equipment, are found on the KSU Web Site at: <http://its.kennesaw.edu/infosec/> or they can be reached from the KSU Intranet Home Page by choosing the topic Issue Specific System Policies from the Computing "Resources section.

Use of any of these facilities implies an understanding of and compliance with these policies.

Transfer Policies

Transfer Evaluations

When a transfer student is fully accepted to Kennesaw State University, the Office of Admissions notifies the Office of the Registrar that a transcript has been received. Transcripts are evaluated in the order they are received from the Office of Admissions and are completed on average within 2-3 weeks. Once completed, an evaluation confirmation notice is emailed to the student and transfer credits are viewable on the Owl Express transcript. DegreeWorks may be used to determine placement of transfer courses to the degree and facilitate academic advising. Copies of transcripts from other universities cannot be reissued to the student.

Military Transfer Credit Policy

Military Transfer Credit may be awarded for undergraduate students accepted to Kennesaw State University Fall 2012 or later who have served in the U.S. Military and who desire to have their military experience considered for transfer credit. Students may have the option of accepting or declining up to 12 semester hours of undergraduate elective transfer credits toward a degree program, if applicable.

Students must request their official JST transcripts be sent directly from JST to the Office of the Registrar, Graduation Audit and Transfer Evaluation Services (G.A.T.E.S.).

Kennesaw State University limits academic residency for active-duty service members (including Reservists and National Guardsmen) to no more than twenty-five percent of the degree requirements for all undergraduate degrees. Active-duty service members can satisfy academic residency requirements at any time during their program of study, specifically avoiding any final

year or final semester residency requirement, subject to stated requirements in specific course areas such as majors.

Kennesaw State University affirms its commitment to fair, equitable, and effective policies and practices that recognize and deal with the special conditions faced by military students who want to obtain a college education.

Credit by Exam

There is no limit for the amount of credit by exam hours a student may receive. Credit by Exam hours are not applied toward institutional graduation residency requirements and they are not calculated in the graduation GPA. The graduation residency requirement serves as the limit for the amount of credit by exam credit a student may receive.

Official score reports for AP, IB, CLEP, DSST and FLATS must be sent from the testing agency to Kennesaw State University to be considered for credit.

Students are required to meet all residency requirements.

College Level Examination Program (CLEP) for Advanced Standing

Students are eligible to take standardized examinations in a number of areas to earn credit for certain specific courses, provided a minimum score is attained on the tests. Credit earned will be recorded on the student's permanent record. For specific information concerning subject areas in which tests are available, the cost and minimum score required for credit, please visit Academic Testing Services at <http://testing.kennesaw.edu> and review Tests Offered. CLEP credit may not be awarded for a course previously failed or audited.

Advance Placement (AP)

Kennesaw State University honors Advance Placement (AP) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit By Exam at <http://transfer.kennesaw.edu>.

International Baccalaureate (IB)

Kennesaw State University honors International Baccalaureate (IB) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit <http://transfer.kennesaw.edu>.

DANTES Subject Standardized Test (DSST)

Kennesaw State University honors DANTES Subject Standardized Test (DSST) credit for certain classes in which an equivalent is offered and for which the required grade is achieved. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit by Exam at <http://transfer.kennesaw.edu>. Credit may not be awarded for a course previously failed or audited.

Foreign Language Achievement Testing Service (FLATS)

Kennesaw State University honors Foreign Language Achievement Testing Service (FLATS) credit for certain classes in which an equivalent is offered and for which the required grade is

received. For details on the scores required and course equivalencies, please visit the Registrar's website and review Credit by Exam at <http://transfer.kennesaw.edu>. Credit may not be awarded for a course previously failed or audited.

Departmental Course Examination for Advanced Standing

Academic Departments do on occasion offer course examinations for credit to students who offer satisfactory evidence. A list of available exam options may be found on the Prior Learning Assessment website under Exam Options for Credit at <http://pla.kennesaw.edu>. These exam options vary by course and by department. Requirements to sit for the exam are determined by the academic home department and described on the Prior Learning Assessment (PLA) website under information and future Scholarships, Departmental Plans at <http://pla.kennesaw.edu>.

If the required score for the examination is met, students will receive the credit equaled with the course. These credit hours will not be included in the calculation of the grade point average.

Requests for department course examinations should be initiated through Owl Express

Authorization will not be given for a course under any of the following circumstances:

- If the student has previously audited the course
- If the student has previously scheduled and failed the course
- If the student has previously scheduled the course but has withdrawn after the first two calendar weeks from the day the semester begins.
- If the student is currently enrolled in the course.
- If the course is a prerequisite or an introduction to a course already completed. (This provision does not apply to skills courses such as physical education or music, for example)
- If the course may be granted credit by a CLEP exam.

Credit earned by institutional advanced standing examination may be used neither to satisfy residency requirements nor to satisfy more than one half of the major-field or minor-field requirements in a program of study.

A passing grade for an institutional advanced standing examination is a grade of 75 percent or higher for a lower-division course and a grade of 80 percent or higher for an upper division course.

A fee of \$60 will be assessed for each institutional advanced standing examination attempted; no course may be attempted more than once.

A student must be admitted to the university at the time of application for advanced standing and must be enrolled in the university to receive credit for a course by advanced standing examination.

Substitutions

Students with advanced standing credits or transfer credits for courses similar to those required in the General Education Program may be permitted to satisfy KSU's requirements through approved course substitutions. Students seeking such substitutions should contact the department chair of the respective course discipline.

Transferring Core Credits to KSU

Students transferring to KSU from another USG institution may take advantage of the following policy by completing the General Education Program. Students successfully completing a course in one institution's Areas A-E will receive full credit in Areas A-E for the course upon transfer to another USG institution as long as the following conditions are met:

- The course is within the Area hours limitations of either the sending institution or the receiving institution and
- The student does not change from a non-science major to a science major

Please note that additional courses may be required if they are prerequisites to major courses. Area F (lower division major) courses require a grade of "C" or better. Once the transfer evaluation has been completed, refer to DegreeWorks in Owl Express to determine how transfer credit is applied to a particular program of study.

Transferring Core Credits to Another USG Institution

Students transferring from KSU to another USG institution may take advantage of the following policy by completing the General Education Program. Students successfully completing a course in one institution's Areas A-E will receive full credit in Areas A-E for the course upon transfer to another USG institution as long as the following conditions are met:

- The course is within the Area hours limitations of either the sending institution or the receiving institution and
- The student does not change from a non-science major to a science major

Consult the transfer evaluation office at the receiving institution for specific transfer equivalencies.

Accreditation/Transfer Credit Practice

Transfer Credit is awarded from institutions holding Regional Accreditation status. Credit may be accepted for alternative accrediting bodies specifically recognized by AACRAO as long as the acceptance practice is reported as "AG" (generally accepted) by the flagship institution of that state.

TCSG

Credit will be accepted from TCSG institutions in observance of USG/TCSG transfer policy. Additionally, credit may be accepted for courses in SACS approved programs at the specific TCSG institution.

International Transfer Credit Practice

- International transcripts must be evaluated and endorsed/ certified/accredited by an evaluation agency. - The evaluation agency must be a current member of the National Association of Credential Evaluation Services (NACES). A course-by-course evaluation is required.
- For transfer credit evaluations, international course descriptions must have been translated by a recognized translation service and certified as a true and correct translation.

Transfer policy for all students

Transfer credit will be awarded for course work with a minimum grade of "D" except for ENGL 1101 & ENGL 1102, which require a minimum grade of "C." Additionally, unless noted in the catalog, a minimum grade of "C" is required for major-related courses and/or prerequisites to major courses. Provided that native and transfer student are treated equally, institutions may impose additional reasonable expectations, such as a grade of "C" in Area A-F courses.

Credit Evaluator

Core Courses

Transfer credit evaluations of the core curriculum are determined by the Registrar transfer evaluation staff in collaboration with academic departments. Transfer credit evaluations must adhere to USG transfer policies, reciprocity agreements, and other approved articulation agreements.

Major related courses

Transfer credit evaluations for the major-related coursework are determined in collaboration with academic departments.

Academic Policies Registration Policies

All registration at Kennesaw State University is conducted over the web through Owl Express.

Registration Access

Access to registration will be granted by time tickets in Banner/Owl Express based on a student's number of overall earned hours (this includes transfer hours). The University may grant earlier access to registration to certain students who have been approved by the University.

New undergraduate students may register as a part of an orientation group or during final registration for the term. Continuing, readmit, new graduate students and new students enrolled in online programs may register during the registration period in the preceding term or during the final registration period. Transient students will register during final registration.

Final registration is for continuing students, new students and other students eligible to register for the term. Any course adjustments (dropping and adding classes) should be complete during this final registration period.

Eligible to Register - Defined

Students eligible to register must enroll during one semester during the year. If a student is not enrolled three (3) terms or more (including summer), he/she must apply for readmission through the Office of Undergraduate Admissions.

Holds on Registration

Holds may be placed on a student's registration in order to satisfy an obligation owed to the university. Holds are displayed on the student's advising guide through Owl Express. The most frequent holds are immunization, financial holds or a Required High School Curriculum (RHSC) deficiency. Failure to return equipment or lab supplies may also result in a financial hold.

Registration, transcript requests and graduation may not proceed unless all holds are removed.

Verification of Course Schedule

Students should verify their class schedule for each semester enrolled. No course additions/deletions are permitted after Drop/Add has ended. It is the student's responsibility to verify their class schedule (including credit hours) on Owl Express for accuracy.

Credit Hour

KSU's policy defines a credit hour as one hour (50 minutes) of classroom or direct faculty instruction and one hour and 40 minutes of out-of-class student work each week for 15 weeks in a semester. This equates to a minimum of 750 minutes of class and 1,500 minutes of out-of-class academic engagement per semester credit hour. An equivalent amount of work is required in educational activities that are out of the classroom or do not include direct faculty instruction and equates to a minimum of three hours of student engagement per week, per semester credit hour or a minimum of 2,250 minutes. These equivalencies are provided for use in online and hybrid courses. This policy is published in the academic policies section of the undergraduate and graduate catalogs and covers all courses regardless of type of course, term length, or delivery mode.

Classification of Courses

Courses of instruction for degree credit in the curriculum of Kennesaw State University will be divided into four categories: lower division, upper division, graduate and doctorate. Lower division courses (typically regarded as freshman and sophomore level courses) are numbered 1000-2999; upper division courses (typically regarded as junior and senior level courses) are numbered 3000-4999; graduate courses are numbered 5000-7999 (with the exception of the Bachelor of Architecture with 5000 level undergraduate courses); doctoral courses are numbered 8000-9999. Graduate courses are open only to students accepted to graduate study. (Courses numbered below 1000 do not count for degree credit but do count for determining fees and enrollment status.)

Full Time & Maximum Course Load

Full Time Course Load - For undergraduate students, twelve (12) semester hours is a full-time load in determining such things as veteran status, financial aid, and insurance eligibility. However, the usual load for a full-time undergraduate student is at least fifteen (15) semester credit hours in both fall and spring semesters. Since summer semester is approximately half the length of these semesters and the workload, therefore, twice as heavy, KSU strongly recommends that students not attempt more than twelve (12) hours of credit during that term. Since twelve (12) hours during the summer may be difficult due to the short length of time, nine (9) hours may be more reasonable but twelve (12) semester hours is a full-time load. For graduate students, nine (9) semester hours is considered full-time.

Maximum Course Load - During the Fall and Spring semesters, a student may register for up to 18 hours. The Office of the Registrar may approve up to 21 hours for students with an Institutional GPA of 3.5 or higher. Course loads above 21 hours must also have a recommendation from the student's department chair.

During the Summer term, a student may register for up to 13 hours. The Office of the

Registrar may approve up to 15 hours for students with an Institutional GPA of 3.5 or higher. Course loads above 15 hours must also have a recommendation from the student's department chair.

Students not in good academic standing will be limited to 13 hours during any semester. Course loads above 13 hours must have a recommendation from an academic advisor or department chair that is made to the Registrar.

Auditing - Course Audits (V Grade)

Students at Kennesaw State University can request to audit one or more courses in a term for a V (Visited) grade. Courses that have an audit status carry the same tuition/fees as those taken for credit. This grade will have no effect on a student's GPA and cannot be changed to another grade in the future.

A student may choose to withdraw from a course for which an audit status has been granted. However, this withdrawal is subject to the institutional withdrawal policy.

A student may choose to re-enroll in a course previously audited for a grade or for an additional audit attempt. However, departments may choose to limit the number of course attempts available to students.

If a student would like to audit a course, he/she should meet with his/her academic advisor and complete an Audit Request Form. The completed form must be submitted to the Office of the Registrar no later than the close of Final Registration for the term. Changes in an audit status cannot be made after the close of Final Registration.

Prerequisites

Students should attempt to schedule courses that serve as prerequisites for advanced study early in their academic career. Lower division courses are designed to serve as preparatory for upper division requirements.

First-Year Curriculum Requirement

All first-year full-time students entering Kennesaw State University with fewer than 15 semester hours are required to complete a First-Year Seminar or enroll in a Learning Community and complete all courses that comprise it. This requirement must be satisfied during a student's first term of enrollment at Kennesaw State University. Students with 30 or more credit hours are not eligible to enroll in a First-Year Seminar or a Learning Community designated for first-year students. First-Year Seminar courses are KSU 1101, KSU 1111, KSU 1121, and KSU 1200. A learning community (LC) is a small cohort of students intentionally co-enrolled in two or more courses with the purpose of integrating learning across courses and creating a sense of belonging in order to promote persistence, engagement, and academic success. LCs are intentionally small and at least one course in the LC is limited to LC students only. LC courses are identified by a "C" in front of section numbers in the Registrar's Schedule of Classes. Learning communities are administered by the Learning Communities Program in the Department of First-Year and Transition Studies, which is part of University College.

Enrollment Classification

Undergraduate students will be classified based on the number of earned institutional hours.

- Freshman: 0 - 29 hours
- Sophomore: 30 - 59 hours
- Junior: 60 - 89 hours
- Senior: 90 hours or more

Tuition Classification

Students are responsible for registering for classes in the correct tuition classification (in-state or out of state). If students seek to be classified as an in-state student (with a resident tuition classification), he or she must provide verification of lawful presence in the United States

Withdrawal from Classes

Students may withdraw from one or more courses up to one week prior to the last day of class. Summer withdrawal dates vary according to the part of term in which the student is enrolled. As of fall 2004, students will be allowed a maximum of eight total withdrawals if they enter KSU as a freshman. Transfer students will be allowed one withdrawal per fifteen credit hours attempted, for a maximum of eight. Students who choose to pursue a second degree at KSU will be allowed two additional withdrawals. Students who entered KSU before fall 2004 will be allowed one withdrawal per fifteen credit hours attempted for a maximum of eight after the institution of this policy. As part of the consolidation process between Kennesaw State University and Southern Polytechnic State University, SPSU students will have eight withdrawals available beginning Fall Semester 2015.

Students who exceed the maximum number of withdrawals will receive a grade of "WF" for any subsequent withdrawals. To completely or partially withdraw from classes at KSU, a student must withdraw online through Owl Express.

Students who officially withdraw from courses before the last day to withdraw without academic penalty will receive a grade of "W" and receive no credit. Students who officially withdraw after the last day to withdraw without academic penalty and before the last week of classes during the semester or who have exceeded the maximum number of withdrawals will receive a grade of "WF," which will be counted as an "F" in the calculation of their grade point average.

The only exceptions to these withdrawal regulations will be for instances involving unusual circumstances, which must be fully documented. Students may appeal to the Academic Standing Committee for consideration of unusual circumstances. Exact withdrawal dates are published in the official academic calendar. Students will receive refunds only when they withdraw from ALL their classes and only by the schedule outlined in the University System refund policy.

Military Withdrawals

Kennesaw State students who are called to active duty or who are deployed during the term may be eligible for a military withdrawal. Students who withdraw for military reasons will receive a WM grade in all courses and receive a refund of tuition and mandatory fees and a pro rata refund of other fees. Students who would like to withdraw for military reasons must submit a copy of their official orders to the Registrar's office. Military withdrawals do not count as part of the eight (maximum) allowed withdrawals.

Transient Authorization (for KSU Students) attending another College/Institution

Students wishing to be transient students at another institution must submit a request to the Office of the Registrar. Once the Registrar has determined that the student is either currently enrolled or has been enrolled in KSU during the past calendar year, and the student is not on academic probation, dismissal or suspension (learning support), then the registrar will issue the appropriate transient statement for the student. The department chair or designee in the student's major must approve major courses taken as a transient student. Students on disciplinary suspension or expulsion will not be issued transient statements.

Cross Registration - Atlanta Regional Consortium for Higher Education (ARCHE)

Kennesaw State University is a member of the Atlanta Regional Consortium for Higher Education, an association of colleges and universities in the Atlanta area offering a combination of reciprocal academic services, such as cross registration, interlibrary loans and visiting scholars program.

The cross registration program is available to students officially enrolled in Atlanta Regional Consortium Institutions. This program is distinct from transient status in that it is possible for a student to register for an approved course at any of the 20 consortium schools and receive credit, while paying tuition costs to the home institution. The intent is to allow qualified students to take course work in their area of study that is not available on their own campus.

To be eligible to participate, the student must be in good standing and must have the recommendation of the faculty advisor or department chair at the home institution. Cross registration may be pursued only for courses not offered at the home institution for the given term and is not recommended for students in their last semester before graduation. Students who wish to enroll in courses at member institutions of the Atlanta Regional Consortium should obtain a Cross-Registration form from the cross registration coordinator in the Office of the Registrar. Check with the coordinator for individual member college cross registration deadlines.

Member Colleges

Agnes Scott College
Brenau University
Clark Atlanta University
Clayton College & State University
Columbia Theological Seminary
Emory University
Georgia Gwinnett College
Georgia Institute of Technology
Georgia State University
Interdenominational Theological Center
Kennesaw State University
Mercer University of Atlanta
Mercer University
Morehouse College

Morehouse School of Medicine
Oglethorpe University
Savannah College of Art and Design - Atlanta
Spelman College
University of Georgia
University of West Georgia

Attendance Policy

Attendance in classes, laboratories and lectures is important. All students are expected to attend these activities in accordance with their schedule of courses. The instructor determines the attendance policy for each course. All instructors will provide the students, at the beginning of each semester, a clear statement regarding their policies in handling absences. Instructors will also be responsible for advising their students regarding the academic consequences of absences.

Students must not be absent from announced quizzes, laboratory periods or final examinations unless the reasons for the absences are acceptable to the instructors concerned. Students should also understand that they are responsible for all material covered during their absences and that they are responsible for the academic consequences of the absences. Students who are absent because of their participation in university-approved activities, such as field trips and extracurricular events, will be permitted to make up the work missed during their absences.

Changing or Declaring Majors

Students who wish to declare or change his/her major or add/change their concentration will need to request this through Owl Express, Student Records. The appropriate academic department of the new major will address the request. The updated major will appear on the Academic Transcript in Owl Express after the academic department has approved the change. Some students may wish to change from a major to undeclared status. In this case, they must contact the NEST: Advising Center for New, Exploratory and Students in Transition. These services are also available on the web. Students should note that when changing majors, there is a possibility that additional hours of course work beyond those required for the completion of the original program may need to be taken. Students should declare a major as soon as possible so that they can be assigned an advisor to help them expedite their progress toward a degree and to help them in preparing for a career.

Grading Policies

Grade Reports

Official grade reports are available on the web through Owl Express. All grades reflected are those submitted by the faculty members at the time of posting. Grade reports, in addition to the official grades for that semester, contain a semester grade point average, an institutional (previously adjusted GPA) grade point average when required, and a cumulative (Regents) grade point average. For graduate students, a semester GPA and a cumulative (Regents) GPA are issued.

Grading System

Issuance of grades and formulation of individual attendance policies are the prerogative of the

instructor. Faculty must provide feedback to students about their progress prior to the last published day to withdraw without academic penalty. Grades are expected to conform to those listed below. Any deviations must be approved by the Faculty Senate and the Office of the Registrar.

The following are the final grades included in the determination of the scholastic grade point average:

<i>Final Grades</i>	<i>Quality Points Per Credit Hour*</i>
A Excellent	4.00
B Good	3.00
C Satisfactory	2.00
D Passing, but less than satisfactory	1.00
F Failing	0.00

* Quality points are not awarded in learning support courses. These courses give institutional credit only, not graduation credit.

Other Grades

I - denotes an incomplete grade for the course and will be awarded only when the student has done satisfactory work up to the last two weeks of the semester, but for nonacademic reasons beyond his/her control is unable to meet the full requirements of the course.

A grade of "I" must be removed (by completing the course requirements) within one calendar year from the end of the semester in which the "I" was originally assigned. In addition, should the student enroll in classes at KSU during the calendar year, the grade of "I" must be removed by the end of the first semester of enrollment during that calendar year.

Upon completion of the course requirements within the specified time limits, a final grade will be assigned on the basis of the student's total performance.

If the course requirements are not completed within the specified time limits, then the "I" will be changed to an "F" (for a course which awards letter grades of "A", "B", "C", "D", or "F") and the cumulative and adjusted grade point average will be recalculated accordingly or the "I" will be changed to a "U" (for a pass/fail course which awards a grade of "S" or "U"). An "I" cannot be removed by re-enrolling in the course.

IP - indicates "in progress" in a learning support course or where credit has not been given in a course that requires a continuation of work beyond the term for which the student signed up for the course (such as thesis). This symbol cannot be substituted for an Incomplete Grade.

K - indicates credit awarded for credit by examination including, but not limited to the following:

- Advanced Placement (AP)
- College Level Examination Program (CLEP)
- International Baccalaureate (IB)
- DANTES (Subject Standardized Tests (DSST))

- Foreign Language Achievement Testing Service (FLATS)
- Departmental Course Exams for Advanced Standing
- Prior Learning Assessment (portfolio review)

NR - indicates no grade was reported.

NA- Never Attended (for attendance verification). The grade will be changed to the appropriate withdrawal grade.

S - indicates satisfactory completion of a credit course and is not included in the calculation of the grade point average. The use of this grade is approved for thesis hours, student teaching, clinical practicum, and internship. It also indicates unsatisfactory completion of certain credit laboratory-type courses.

U - indicates unsatisfactory completion of a credit course and is not included in the calculation of the grade point average. The use of this grade is approved for thesis hours, student teaching, clinical practicum, and internship. It also indicates unsatisfactory completion of certain credit laboratory-type courses.

V - indicates the student was given permission to audit the course. It is not included in the calculation of the grade point average. Students may not transfer from audit to credit status or vice versa. The use of this grade is approved for cooperative (COOP) courses.

W - indicates the student was permitted to withdraw from the course without academic penalty. A course in which a grade of "W" has been assigned will not be included in the calculation of the student's grade point average.

WF - indicates the student was permitted to withdraw from a course with the approval of the registrar after the withdrawal date listed in the Semester Schedule of Classes. The grade of "WF" is counted as an F in the calculation of the student's grade point average.

WM - indicates withdrawal for Military Reasons (permitted under Board of Regents policy for military service refunds)

Directed Study

The following institutional regulations apply to directed study. Additional departmental requirements may exist.

General restrictions:

- Content in the directed study will not substantially overlap an existing course in the curriculum.
- A student may not carry more than three semester hours in a directed study per semester.
- A maximum of ten semester hours of directed study may be used to satisfy degree requirements with a maximum of three hours used as related studies electives and a maximum of three hours used as free electives. The department shall determine the maximum number of hours allowed within the major.
- A student must have an overall institutional GPA of at least 3.0 and a cumulative GPA in the major of at least 3.0 in order to be eligible for a directed study.

Any student wishing to do a directed study must obtain approval from his/her advisor and

complete a Directed Study request.

Cooperative Education and Internships

The Cooperative Education (Co-op) and Internship programs offer students work experience relevant to their majors. Most employers want students with practical experience and often prefer to hire those who have worked with them and others through internships or co-ops.

Co-op classes are taken only on a pass/fail basis; thus the grade of "S" or "U" will be assigned. Exception: The COOP 2000 is a 12 credit hour Cooperative course and is taken as an audit; thus a grade of 'V' will be assigned.

The Internship grade structure depends on the academic department involved. For more information about these programs, students should check with the Career Services Center for more information about these programs.

Co-op and Internship course credit may be used as general elective credits in most majors. Students should see their academic advisor for information regarding co-ops and Internships applicable to their major.

Grade Point Average (GPA)

Kennesaw State University uses a 4.00 grade point average system, calculated to and truncated at two significant digits. (BOR Policy Manual 3.5.1) The grade point average or GPA is calculated by dividing the total quality points earned, by the total number of hours of credit for which grades have been assigned, excluding courses in learning support (0989, 0998, 0999).

Semester GPA (also known as SGPA or Term GPA)

Kennesaw State University calculates a semester grade point average (SGPA) for courses attempted each semester. This SGPA becomes particularly significant for students on academic probation who must maintain a 2.0 SGPA to avoid academic dismissal.

Institutional GPA (also known as KSU Adjusted GPA)

Kennesaw State University calculates an institutional GPA that is used as the primary, overall GPA. Transfer credit/grades will not be used in calculating the institutional GPA. The institutional term GPA will be used to determine semester honors and academic standing at the end of the term. This GPA is adjusted for course repeats.

Cumulative GPA (also known as Regents GPA)

Kennesaw State University calculates a cumulative GPA, by dividing the total number of hours in which a grade of A, B, C, D, F or WF has been received into the number of quality points earned on those hours. Institutional credit (such as learning support courses) will not be included in this GPA. (BOR Policy manual 3.5.1.2)

Grade Changes

Errors in grades must be reported to the Office of the Registrar immediately. In general, no grade changes will be made after the end of the next semester after the grade was assigned, except with the approval of the Academic Standing Committee. In general, the Academic Standing Committee will not consider requests for grade changes beyond one year from the end of the semester in which the grade was assigned. A petition for a grade change will not be

accepted after the date of graduation.

Grade Appeals

Grade appeal will follow the level of the course. Students' rights to grade appeals are defined in the university catalog. A key element in the grade appeal procedure is the faculty member's responsibility to publish a specific grading policy for each of his/her classes. Specifically, the grade appeal procedure states: "Each faculty member must specify his/her grading policy at the first of the semester. He/she may change his/her grading policy for cause after that time, but he/she must do so uniformly, with ample notification to students, if at all possible."

Note that failure to publish the grading policy would mean that a faculty member would have great difficulty in sustaining his/her assigned grade if a student appealed with anything but a frivolous or irresponsible basis for his/her charge. The grading policy should be quite specific and should be distributed to each class in written form. Some departments may also require faculty members to file grading policy statements in the departmental office. Because the student can submit a grade appeal to the Department Chair within 20 business days after the first day of classes of the next academic term after the academic term in which the final grade was awarded to the student (see Grade Appeals Procedure, section B), it is strongly recommended that instructors retain any student papers, tests, projects, or other materials not returned to the student for 70 days after the end of a semester or if an appeal is filed until the appeal is resolved. Refer to the following section for specific grade appeal procedures.

Grade Appeal Procedure

Kennesaw State University is committed to treating students fairly in the grading process. Students may appeal a final grade that they receive in a course, but interim grades or grades on specific assignments are not appealable. Any such appeal must be based on an allegation that the faculty member has violated his/her stated grading policy or/and that the grade was a result of discrimination or retaliation. The student has the burden of proving these allegations. All formal appeals under these procedures will be based only on the written record.

- Informal: Students are encouraged to discuss concerns and disputes over final course grades with the faculty member, prior to filing a formal grade appeal, in an effort to understand the basis of his/her grade. Faculty are encouraged to be available to students for such discussion regarding grades so that if possible, grade disputes can be resolved informally.
- Formal: In situations where such informal resolution does not occur or is not successful, the student may appeal the final course grade to the Department Chair. The appeal must be in writing and describe the precise basis for the appeal. Any pertinent information must be submitted with the appeal in order to be considered in this or subsequent appeals. The appeal must be submitted within 20 business days after the first day of classes of the next academic term (fall, spring, summer [or any other term]) after the academic term in which the final grade was awarded to the student. The Chair will invite the faculty member whose grade is appealed to provide a written response to the student's appeal statement. The Department Chair (or the Chair's designee) will review the allegations and conduct any additional fact finding as needed and will provide a decision in writing to the student, within 20 business days of the receipt of the complaint in the Department if there is no allegation of discrimination or retaliation that

impacted the grade. The Chair's written decision will specifically address the relevant issues raised by the student.

- ◇ If the student alleges that the grade was a result of discrimination or retaliation, the following procedures will be followed. The Chair will consult with the Office of Institutional Equity (OIE) if there is an allegation that discriminator or retaliation based on status in a protected class has an impact on the grade. Please see <http://equity.kennesaw.edu/titleix/non-discrimination.php>. for the University's Non-Discrimination Statement. The Executive Director of Institutional Equity or designee will review the information provided by the Chair to determine jurisdiction, routing, and
- ◇ whether an investigation is warranted, or if more information is needed. If the OIE determines that an investigation is warranted, the OIE will conduct an investigation. The general timeframe for the investigation is 60 business days, absent any special circumstances. The OIE will issue an investigation report to the Chair. The Chair will use the OIE investigation report to make the grade appeal decision and communicate the decision to the student within 20 business days after receipt of the OIE investigation report. The Chair's written decision will specifically address the relevant issues raised by the student.
- The student may appeal the Department Chair's decision within 20 business days of being notified of the Chair's decision. Such appeal will be made, in writing, to the Dean of the College in which the Department is located. At the Dean's discretion, the Dean can appoint an advisory panel, consisting of two (2) faculty members from outside the department where the grade was awarded and one (1) student to review the written documentation and make a recommendation to the Dean. The advisory panel may invite the student and the faculty member who awarded the grade to meet with the panel to share each party's position on the grade dispute. The panel will provide a written recommendation to the Dean within ten (10) business days of the receipt of the appeal. The Dean will issue a decision to the student, in writing, within ten (10) business days of the receipt of the report from the advisory panel or within twenty (20) business days of the receipt of the written complaint from the student if no panel was appointed.
- The student may appeal the Dean's decision to the Provost, in writing, within twenty (20) business days of being notified of the Dean's decision. [However, if it is a graduate course, the student will direct this written appeal to the Graduate Dean, and the Graduate Dean will issue a decision to the student, in writing, within twenty (20) business days of receiving the appeal. Within twenty (20) days of that decision, the student may then appeal to the Provost as is described in this section]. The Provost, will issue a decision to the student, in writing within twenty (20) business days of receiving the appeal.
- The Provost's decision is final, and decisions regarding grades may not be appealed to the Board of Regents (BOR Policy 4.7.1).
- Nothing in this grade appeals process prohibits the parties from settling this matter at any stage. However, any attempt to settle the matter through mediation does not affect time deadlines for this grade appeals process.

Semester Honors

Dean's List

An undergraduate student is eligible for the Dean's list at the end of the term if he/she has been enrolled in at least 9 credit hours awarding letter grades (A-D and F) and earns a term grade point average of at least 3.5 (but less than 4.0). (Please note that learning support courses are not included in the GPA calculations for the term.)

President's List

An undergraduate student is eligible for the President's list at the end of the term if he/she has been enrolled in at least 9 credit hours awarding letter grades (A-D and F) and earns a term grade point average of 4.0. (Please note that learning support courses are not included in the GPA calculations for the term.)

Academic Standing

Good Standing

An undergraduate student is in good standing when he/she has an institutional GPA of 2.00 or higher.

Academic Probation

A student will be placed on academic probation at the end of any semester or summer term in which his/her institutional grade point average falls below 2.00. Students may remove themselves from academic probation by raising their institutional GPA to at least 2.00.

Academic Dismissal

A student on academic probation will be dismissed for any one of the following reasons:

- He/she fails to maintain a 2.00 grade point average for courses attempted in any semester.
- He/she fails to remove himself/herself from academic probation after completing three semesters of attendance.

A student who is dismissed is not in good academic standing at KSU and is not eligible for immediate readmission.

Readmission to the University after Dismissal

- After the first dismissal, a student may be considered for readmission after an absence of one semester (this can include the summer semester). Dismissed students must apply for readmission through the Office of Undergraduate Admissions prior to posted deadlines.
- After the second dismissal, a student may be considered for readmission after an absence of one calendar year from the end of the semester in which the second dismissal occurred. Dismissed students must apply for readmission through the Office of Undergraduate Admissions prior to posted deadlines.
- After the third dismissal, the student will be academically dismissed and will no longer be eligible for readmission.

Any exceptions to this policy must be appealed and approved by the Academic Standing Committee. Information on academic appeals is available through the Office of the Registrar website.

Repeated Course Policy

When undergraduate courses taken at Kennesaw State University are repeated at Kennesaw State University with a higher grade, the highest grade received will be counted in the institutional GPA (previously adjusted GPA) calculations. The student's permanent record and cumulative (Regents) grade point average will retain all course attempts and grades.

If a student repeats an institutional course as a transfer/transient student and receives a higher grade in the transfer/transient course, the repeated KSU grade will be EXCLUDED from the KSU institutional GPA the next semester the student is enrolled at KSU.

Re-enrollment Policy

After taking or attempting an undergraduate course for the second time, students will not be allowed to re-enroll in that class without the permission of the department chair or his/her designee. It is the sole discretion of the department chair/designee to decide if and when a student will be allowed to enroll in a class that they have taken/attempted twice (attempts include withdrawn courses). There is no obligation on the part of the chair to allow a student to enroll in a course after the student's second attempt to take the course. This limitation is in place regardless of previous grades including grades of "W" or "WF". The standing exception to this policy is for courses described in the KSU undergraduate catalog as being repeatable for credit.

Academic Renewal

Undergraduate students who have been readmitted after a period of absence of three calendar years or longer are eligible for academic renewal. The institutional GPA may be restarted by petitioning the Office of the Registrar for an academic renewal (previously academic fresh start). This provision allows degree-seeking students who earlier experienced academic difficulty to make a fresh start and have one final opportunity to earn a degree.

The institutional GPA (previously adjusted GPA) will be used to determine academic standing (probation or dismissal) and eligibility for program admission. The institutional GPA will also be used to determine eligibility for graduation and eligibility for honors, but with some restrictions. To graduate, students must have at least a 2.00 institutional GPA and at least 30 earned hours of credit for KSU course work not excluded because of repeated courses or "academic renewal" status. If the student has fewer than 30 earned hours of credit for non-excluded KSU course work, he/she must have a 2.00 cumulative grade point average. To receive honors at graduation, "academic renewal" students must have at least 60 earned hours of credit at KSU after the "academic renewal" status was granted. In addition, for honors, students who have repeated courses must have at least 60 earned hours of credit at KSU after the hours for the repeated courses have been excluded.

(http://www.usg.edu/academic_affairs_handbook/section2/C749/)

Students who wish to participate in the Academic Renewal program must contact the Office of the Registrar to complete the Academic Renewal Request Form. The request must be submitted within three semesters after re-enrollment or one calendar year, whichever comes

first. A student can be granted Academic Renewal status only one time within the USG system. Once granted, the petition for Academic Renewal cannot be rescinded.

Academic Renewal for Second Degree

A student who returns to KSU for a second KSU undergraduate degree may have his/her Institutional Grade Point Average (GPA) restarted at the time of re-entry. In order to restart the GPA, students must petition the Office of the Registrar within three semesters after re-enrollment or one calendar year, whichever comes first. A student can be granted Academic Renewal for Second Degree status only one time.

Graduation Policies and Procedures

Petition to Graduate

Undergraduate students should submit a formal petition for the degree through the online petition process no later than the published deadline and pay the graduation fee. Login to Owl Express; select Registration and Student Records tab; select Petition to Graduate. Once submitted, the graduation petition process will initiate a petition fee assessment and a review of the student's academic record to determine eligibility toward the degree. Expect up to eight weeks for a completed degree audit. Petition status changes are viewable at the Display Petition Status link in Owl Express, and the student will be prompted by email to view status changes in addition to essential audit results and graduation policies. A student may request in absentia status by writing to the Registrar prior to the graduation exercises.

Graduation	Petition Acceptance	Petition Deadline
Summer Semester	March 1	May 30
Fall Semester	April 1	September 30
Spring Semester	November 1	February 28

It should be noted that program and course requirements and university policies are subject to change without advanced notice. Changes in policy and requirements enacted by the Board of Regents take precedence over existing university policies and requirements. The University will make reasonable efforts to accommodate students affected by such changes but reserves the right to determine where and to what extent it will grant exceptions to new policies and requirements. In cases where courses are deleted, students must substitute courses deemed acceptable by the faculty or chair responsible for the degree program in question.

Other Degree Requirements

- The Student must pay all required fees, fines and other financial obligations to KSU prior to receiving his/her diploma and/or other services. Students with a balance may have a HOLD placed on their account until balance is paid.
- Satisfy BOR Core Overlay requirements regarding Critical Thinking, United States Perspectives and Global Perspectives.

In all instances, meeting the requirements for graduation is the responsibility of the student.

Catalog for Graduation Evaluation

Each student should meet with his/her academic advisor or departmental representative to determine the appropriate catalog to be used for academic advisement and for evaluation of graduation requirements. Catalog selection applies only to the course requirements of that catalog; all other academic procedures and graduation requirements must be satisfied according to regulations in effect at the time of graduation.

A student may elect to be evaluated for graduation from any catalog in effect during the time he or she has been enrolled, provided that enrollment has been continuous, and the student does not change majors. If a student changes majors, he/she will be evaluated for graduation using the catalog in effect at the time of the change, or any subsequent catalog as long as the student is continuously enrolled.

Students readmitted will be evaluated for graduation from the catalog in effect at the time of readmission or reinstatement, or any catalog in effect during subsequent periods of continuous enrollment.

Age of Credit

Courses, in general, have no limit imposed on the age of credit. However, each department may elect to restrict the age of courses applied to a specific degree program.

Deficiencies

A student who has received a grade of "I", "IP", "F" or "WF" in a course has a deficiency in the course. A student whose final grade is "F" or "WF" has a failure in that course. The student should repeat and pass the course in residence at Kennesaw State University before credit will be allowed. Repeating the course does not remove the "F" or "WF" from the total cumulative average.

Duplicate Courses or Dual Credit

If a student has two courses that are so similar as to be considered the same, he/she may only use one to meet program of study degree requirements. Only one course may be counted as hours earned, and only one course may be used for graduation purposes.

Graduation Requirements:

To be eligible to receive a baccalaureate degree, a student must meet the following requirements:

- Each undergraduate student must have a minimum institutional Grade Point Average (GPA) of 2.0 for graduation. Specific degree programs may have higher requirements.
- Complete all required General Education courses; ENGL 1101 AND ENGL 1102 require a grade of "C" or higher (or equivalents if a transfer student).
- Complete the chosen program of study with the grade of "C" or better in all courses listed under the major, including those listed as Lower Division Major Requirements.
- Complete a minimum of 123 semester hours. Specific degree programs may require additional hours. A minimum institutional grade point average of 2.0 on all course work attempted at KSU is required. No course may be counted more than one time in

meeting the total credit hours required for the degree.

- Have at least a 2.0 institutional grade point average with at least 30 hours of credit for KSU coursework not excluded because of repeated courses or Academic Renewal status. If the student has fewer than 30 earned hours of credit for non-excluded KSU coursework, he/she must have a 2.0 cumulative grade point average.

Degree Program Hours

Baccalaureate degrees consist of a minimum of 120 semester hours, exclusive of the university-wide requirements (WELL 1000 and the first-year seminar/learning community). Exceptions to the maximum degree length requirements have been made with the approval of the Board of Regents. A baccalaureate degree program requires at least 21 semester hours of upper division courses in the major field to be completed at KSU, and at least 39 semester hours of upper division work overall are required for the degree.

State Legislative Requirements

Undergraduate students cannot graduate or receive a degree without successfully completing course work or passing a satisfactory examination on the history of the United States and the history of Georgia and the provisions and principles of the United States and the Constitution of Georgia.

HIST 2112 or HIST 2111 with a grade of "D" or better satisfies legislative requirements for US & GA History provided an emphasis in US and GA content is evident; POLS 1101 with a grade of "D" or better satisfied US & GA Constitution provided an emphasis in US and GA government content is evident. An exemption exam is required for students with transfer credit that do not meet the aforementioned standards.

Core Curriculum Requirement

Kennesaw State University will develop a policy to comply with BOR Academic Affairs Handbook policy 2.4.4 which requires that new students complete AREA A prior to reaching a specified number of hours.

ENGL 1101 and 1102: The Campus Writing Requirement

At Kennesaw State University ENGL 1101 and ENGL 1102 (English Composition I & II) are required for all undergraduate degrees. A grade of "C" or better is required for ENGL 1101 and ENGL 1102.

Residency Requirements

Complete at least 30 semester hours, which includes at least 21 semester hours of upper division courses in residence, at Kennesaw State (Coles College of Business requires 33 hours). "In residence" is defined as courses for which a student has registered at KSU. Note: Individual departments may have higher requirements. Courses for which the student registers at KSU, including cross-registration, are considered to be "in residence". Coursework completed as a transient student at another institution, transfer credit, credit by examination (including CLEP, AP, IB, etc.) are not considered to be in residence.

Graduation with Honors

An institutional grade point average of at least 3.5 is required for students to graduate cum

laude, 3.7 to graduate magna cum laude and 3.9 to graduate summa cum laude from a baccalaureate program. Graduation with honors

requires that students earn at least 60 semester credit hours in residence at Kennesaw State University for the bachelor's degree.

To receive honors at graduation, "second degree" and Academic Renewal students must have at least 60 earned hours of credit at KSU after the "second degree" or Academic Renewal status was granted. In addition, for honors, students who have repeated courses must have at least 60 earned hours of credit at KSU after the hours for the repeated courses have been excluded.

Dual Majors (or Double Majors)

Students are eligible for two majors under the same degree program when:

- All of the requirements for two KSU majors are satisfied, including all residency and institutional requirements for each major; and
- The second major contains at least 21 semester hours of upper division course work beyond the courses required for the students first major and general education requirements.

An example of a dual major would be a Bachelor of Science with a major in mathematics and physics. One diploma will be issued for the degree.

Dual Degree

Students are eligible for two degrees at the same time when:

- All of the requirements for two KSU degree programs are satisfied, including all residency and institutional requirements for each major; and
- The second degree contains at least 21 semester hours of upper division course work beyond the courses required for the student's first major and general education requirements.

An example of a dual degree would be a Bachelor of Science and a Bachelor of Arts Degrees.

Second Bachelor's Degrees

Students who have previously earned or are currently pursuing a baccalaureate degree from an institution regionally accredited by the Commission on Colleges may obtain a second baccalaureate degree at KSU by satisfying the following requirements:

- Meet all major requirements listed for the chosen program of study.
- Complete the Georgia Legislative History and Constitution requirements.
- Earn at least 30 semester hours in residence at Kennesaw State University. If the first baccalaureate degree was earned at Kennesaw State University, these 30 hours must be in excess of any hours used towards the first baccalaureate degree.
- The second degree requires at least 21 semester hours of upper-division, major-related course work in residence.
- Complete (for students with majors in the Bagwell College of Education) the lower division major requirement courses in Education.

Certificate Programs

- Students admitted to a certificate program may apply the courses completed for the certificate toward a degree program if they are accepted to a degree program.
- Students admitted to a degree program may be awarded a related certificate based on completion of the courses in the certificate program provided they also apply for the certificate.
- Students who wish to apply for a certificate should contact their academic department or the Office of the Registrar for instructions on how to proceed.

Minor Requirements

- A minor program is a prescribed area of academic study consisting of 15-18 semester hours.
- At least nine of the required hours must be at the upper-division level, i.e. courses numbered 3000 or above.
- The prescribed courses for a minor may be taken from one or more academic disciplines. Courses taken in Core Area F (lower division major requirements) may be counted as coursework in the minor.
- Courses taken to satisfy Core Areas A through E (general education) may NOT be counted as coursework in the minor.
- A course may not fulfill requirements of more than one minor or certificate.
- Students must earn a grade of at least "C" in all course work applicable to a formal minor.
- When a student's major and minor programs require the same courses, the credit hours for some of those courses may be counted toward both the major and minor. Typically, at least 9 hours of minor must be non-duplicative with course requirements in the major, however some individual programs have been approved to allow fewer non-duplicative hours between closely related majors and minors. Courses in the minor may be used may be used to fulfil electives (free electives, technical electives, related studies, etc.) required by the student's major degree program. At least 6 hours of the upper division hours must be earned in residence at KSU.
- Some departments may allow fewer than 9 hours for the minor to be non-duplicative with the major; for requirements on specific minors, students should contact the home department. If a department wants to allow fewer than 9 hours for the minor to be non-duplicative with the major, the department housing the minor should make this request to the Office of the Registrar.
- In order to graduate with a minor that will be noted on the student's permanent record, the student must declare the minor through Owl Express. Additional minors must be declared through the Office of the Registrar using a completed and approved minor form

Other Policies

Learning Support Standing

Grades received in learning support courses (0989, 00998, 0999) are not included in the calculation of a student's grade point average (Institutional or cumulative). Failing grades in these courses will be considered for the purpose of determining satisfactory progress.

Learning Support Attempts and Exit

1. An attempt is defined as an institutional credit course in which a student receives any grade or symbol except "W" or "WM."
2. If students do not complete requirements for Foundations-level mathematics in two attempts, they will be suspended for a calendar year. Suspended students may be considered for readmission before the end of one year if they can provide evidence that they have taken measures to improve their skills.
3. Students who have been suspended from the institution without completing Learning Support requirements may complete their Learning Support requirements and additional collegiate-level work at SACSCOC-accredited TCSG institutions during the year of suspension.
4. There are no limits on attempts in corequisite Learning Support courses. However, students who have accumulated a maximum of 30 semester hours of college-level credit at KSU and have not successfully completed
5. required Learning Support courses may enroll only in Learning Support courses until requirements are successfully completed. Students with transfer credit or credit earned in a certificate or prior degree program who are required to take Learning Support courses for their current degree objectives may earn up to 30 additional hours of college-level credit. After earning the additional hours, such students may enroll in Learning Support courses only.
6. Students will exit Learning Support by successfully passing (as defined by the Institution) the corresponding Area A collegiate-level course.

Students engaged in degree-credit courses before the completion of their learning support requirements will be subject to the requirements of satisfactory scholarship in both types of courses simultaneously. Once the learning support requirements are met, a student's academic standing will be judged solely on the basis of his or her Institutional grade point average for degree credit courses.

Mathematics Advisement and Placement Test (MAPT)

Students who are not required to take the mathematics Accuplacer test for the Learning Support Program should take the Mathematics Advisement and Placement Test (MAPT). The MAPT helps students decide which credit mathematics course to take first. This is an online test that students should take before orientation and advisement. Details are at <http://placement.kennesaw.edu>.

University-Wide Degree Requirements

WELL 1000 - Foundations for Healthy Living Requirement (3 Credit Hours)

All students entering Kennesaw State University are required to take the Foundations for Healthy Living (WELL 1000) course. Students who previously completed HPS 1000 - Fitness for Living have met the Foundations for Healthy Living requirement. This requirement is WAIVED for majors in the following three colleges: 1) College of Architecture and Construction Management, 2) College of Computing and Software Engineering, and 3) College of Engineering and Engineering Technology. This course examines priority health issues impacting KSU students through a focus on health promotion and disease prevention. Emphasis is placed on achieving and maintaining healthy lifestyles by developing effective strategies to adapt to changing personal and environmental factors. Topics of exploration include physical activity, nutrition, weight management, stress, emotional health, and behaviors that contribute to the leading causes of death and disabilities in the United States. WELL 1000 cannot be used to satisfy free elective requirements.

First-Year Curriculum Requirement

All first-year full-time students entering Kennesaw State University with fewer than 15 semester hours are required to complete a First-Year Seminar or enroll in a Learning Community and complete all courses that comprise it. This requirement must be satisfied during a student's first term of enrollment at Kennesaw State University. Students who choose to satisfy the requirement by taking a first-year seminar should work closely with their academic advisors to determine where and how the course fits into their program of study. Students with 30 or more credit hours are not eligible to enroll in a First-Year Seminar or a Learning Community designated for first-year students. First-Year Seminar courses are KSU 1101, KSU 1111, KSU 1121, and KSU 1200. A learning community (LC) is a small cohort of students intentionally co-enrolled in two or more courses with the purpose of integrating learning across courses and creating a sense of belonging in order to promote persistence, engagement, and academic success. LCs are intentionally small (i.e., 25 students or fewer), and at least one course in the LC is limited to LC students only. LC courses are identified by a "C" in front of section numbers in the Registrar's Schedule of Classes. Learning communities are administered by the Learning Communities Program in the Department of First-Year and Transition Studies, which is part of University College.

General Education Requirements

About the General Education Program

The General Education at Kennesaw State University program offers a comprehensive series of interrelated courses in the liberal arts and sciences for all KSU students. Whereas the major program contributes depth within a chosen specialization, the General Education core provides breadth of understanding within a variety of disciplines. Together, the General Education core and the major degree program offer students the knowledge, skills, and perspectives to become informed and engaged citizens living in a diverse, global community.

LEARNING OUTCOMES

The General Education program has ten learning outcomes for students to achieve over the course of their core curriculum. These learning outcomes are assessed in designated courses throughout the General Education program.

- *Written Communication*: Students will write & communicate at a college level in various modes, media, and/or rhetorical contexts.
- *Reading Comprehension*: Students will demonstrate an ability to comprehend, analyze, & interpret texts in various modes, genres, media, and/or contexts.
- *Quantitative Learning*: Students will demonstrate the ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables) and/or convert information into mathematical forms at a level appropriate for the complexity of problems in a college-level course.
- *Critical Thinking*: Students will evaluate and synthesize information to support ideas and perspectives.
- *Literature*: Students will include multicultural, social, or historical contexts in their interpretation of literary work.
- *Global Perspectives*: Students will analyze creative works from multiple international cultures in relation to the historical, political, economic, sociocultural, aesthetic, or personal contexts in which those works emerged.
- *Applied Math*: Students will demonstrate an ability to effectively apply symbolic representations to model and solve problems.
- *Natural Sciences*: Students will demonstrate an understanding of college-level scientific principles, theories, and laws, and apply them to solve problems and explore natural phenomena.
- *U.S. Perspectives*: Students will demonstrate a broad understanding of history, political systems, or culture of the U.S.
- *Social Sciences*: Students analyze the complexity of how historical, economic, and political relationships develop, persist, or change.

General Education Core Requirements at KSU

Throughout the university system, the core curriculum consists of 42 semester hours of which a minimum of 42 are in general education.

Area A1: Communication - (6 Credit Hours)

- ENGL 1101: Composition I
- ENGL 1102: Composition II

Area A2: Quantitative - (3 to 4 Credit Hours)

Select one from the following:

- MATH 1101: Introduction to Mathematical Modeling
- MATH 1111: College Algebra
- MATH 1112: College Trigonometry
- MATH 1113: Precalculus
- MATH 1190: Calculus I

Area B: Institutional Option - Critical Thinking - (5 Credit Hours)

B1: Contemporary Economic Issues (2 Credit Hours)

- ECON 1000: Contemporary Economic Issues

B2: Cultural Perspectives (3 Credit Hours)

Select one from the following:

- AADS 1102: Issues in African and African Diaspora Studies
- AMST 1102: American Identities
- ASIA 1102: Introduction to Asian Cultures
- COM 1100: Human Communication
- FL 1002: Introduction to Foreign Language and Culture II (Any of the following courses can be taken to satisfy FL 1002: FL 1002, CHNS 1002, FREN 1002, GRMN 1002, HEBR 1002, ITAL 1002, JPN 1002, KOR 1002, LATN 1002, PORT 1002, RUSS 1002, SPAN 1002. Some sections of FL 1002 may include Arabic, Hindi, etc. which can also be taken.)
- GWST 1102: Love and Sex
- LALS 1102: Understanding Latin America
- PAX 1102: Understanding Peace and Conflict
- PHIL 2200: Ways of Knowing
- POLS 2401: Global Issues
- RELS 1102: Introduction to Religion

Area C: Humanities, Fine Arts, and Ethics - (6 Credit Hours)

C1: Literature of the World

Select one from the following:

- ENGL 2110: World Literature
- ENGL 2111: Early World Literature
- ENGL 2112: World Literature mid 1600s to Present
- ENGL 2120: British Literature
- ENGL 2121: Early British Literature
- ENGL 2122: British Literature late 1700s to Present
- ENGL 2130: American Literature
- ENGL 2131: Early American Literature
- ENGL 2132: American Literature mid 1800s to Present
- ENGL 2300: African-American Literature

C2: Arts and Culture of the World

Select one from the following:

- ART 1107: Art in Society
- DANC 1107: Dance in Society
- MUSI 1107: Music in Society

- TPS 1107: Theatre in Society

Area D: Science, Mathematics & Technology - (10 to 12 Credit Hours)

D1: Applied Math (3 to 4 Credit Hours)

Select one from the following:

- STAT 1107: Introduction to Statistics
- MATH 1160: Elementary Applied Calculus
- MATH 1190: Calculus I
- MATH 2202: Calculus II

Note:

Students completing MATH 1190 with a grade of C or better as their first math credits receive MATH 1113 K-credit.

D2: Science Process (7 to 8 Credit Hours)

Group One

Select one course or group of courses from the following:

- SCI 1101: Science, Society, and the Environment I
- GEOG 1112: Weather and Climate
- GEOG 1113: Introduction to Landforms
- CHEM 1151: Survey of Chemistry I
- CHEM 1151L: Survey of Chemistry I Laboratory
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I
- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory I
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory

Group Two

Select one course or group of courses from the following:

- SCI 1102: Science, Society and the Environment II

- GEOG 1112: Weather and Climate
- GEOG 1113: Introduction to Landforms

- CHEM 1152: Survey of Chemistry II
- CHEM 1152L: Survey of Chemistry II Laboratory

- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory

- PHYS 1112: Introductory Physics II
- PHYS 1112L: Introductory Physics Laboratory II

- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II

- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

Note:

D1: STEM Majors: Take MATH 1190 or 2202. Students completing MATH 1190 with a grade of "C" or better as their first math credits receive MATH 1113 K-credit.

D2: STEM majors: Take CHEM 1211/L & 1212/L, PHYS 1111/L & 1112/L, PHYS 2211/L & 2212/L, or BIOL 1107/L & 1108/L.

Pre-Health Majors: Take CHEM 1151/L & 1152/L, CHEM 1211/L & 1212/L, PHYS 1111/L & PHYS 1112/L or BIOL 1107/L & 1108/L. It is recommended that students select a sequence appropriate to the major.

Nursing majors: Take CHEM 1151/1151L, CHEM 1152/1152L & MATH 1107.

All other majors: Take one laboratory science course and one additional science course. STEM majors: carry over extra 1-2 hours to area F.

Area E: Social Sciences – (12 Credit Hours)

E1: U.S. Government (3 Credit Hours)

- POLS 1101: American Government

E2: U.S. History (3 Credit Hours)

Select one from the following:

- HIST 2111: United States History to 1877
- HIST 2112: United States History Since 1877

E3: World History (3 Credit Hours)

Select one from the following:

- HIST 1100: Introduction to World History
- HIST 1111: Pre-Modern World History
- HIST 1112: Modern World History

E4: Social Sciences (3 Credit Hours)

Select one from the following:

- CRJU 1101: Foundations of Criminal Justice
- GEOG 1101: Introduction to Human Geography
- PSYC 1101: Introduction to General Psychology
- SOCI 1101: Introduction to Sociology
- STS 1101: Science, Technology, and Society
- ANTH 1102: Introduction to Anthropology
- ECON 2100: Principles of Microeconomics

Area F: Lower Division Major Requirements - (18 Credit Hours)

See the individual majors for the specific requirements in this area.

Requirements for BBA Degree

Business majors should take the following courses as part of their KSU General Education requirements:

- MATH 1111 College Algebra (or MATH 1113 - Precalculus)
- MATH 1160 Elementary Applied
- Calculus (or MATH 1190 - Analytic Geometry and Calculus I)
- ECON 2100 Principles of Microeconomics

All business majors must take a calculus course, which is part of the Coles College Sophomore GPA requirement and also a pre-requisite to several business courses. Most students will take the MATH 1111 and MATH 1160 sequence. Students with stronger math aptitudes or backgrounds, or students considering graduate school, should take MATH 1113 and MATH 1190. All students must take ECON 2300 (Business Statistics) and not STAT 1107.

Sophomore GPA Requirement

Before a business major can be admitted to the Coles Professional Program and enroll in any upper-division business courses (3000-4000), she or he must meet the Coles Sophomore GPA Requirement. This involves earning an adjusted GPA of 3.00 or greater for the following eight courses:

- MATH 1160 Elementary Calculus with Applications (or MATH 1190-Analytic Geometry and Calculus I)
- ACCT 2100 Introduction to Financial Accounting
- ACCT 2200 Introduction to Managerial Accounting
- ECON 2100 Principles of Microeconomics

- ECON 2200 Principles of Macroeconomics
- ECON 2300 Business Statistics
- BLAW 2200 Legal and Ethical Environment of Business

Regardless of whether the courses are taken at Kennesaw State University or at another acceptable accredited institution, the grades earned will be used to check this GPA requirement. A course may be repeated if necessary.

Engineering Standing Requirements

The first two years of a program's curriculum are considered to be lower division while the remaining two years are considered the upper division. For the most part, upper division engineering courses are those with course numbers in the 3000's and 4000's. In addition to the stated prerequisites and unless otherwise noted in the catalog, students must apply for and be granted Engineering Standing in order to enroll in any upper division Engineering course taught in the College of Engineering. A 2.70 GPA is required to receive engineering standing in the courses noted below.

The following chart lists the course requirements for students seeking Engineering Standing. Updated May 8, 2017.

Courses	Civil Engr	Com P Engr	Cons t Engr	Elect Engr	Environ Engr	Ind & Sys Engr	Mech Engr	Mech Engr
Composition I (ENGL 1101)	X	X	X	X	X	X	X	X
Composition II (ENGL 1102)	X	X	X	X	X	X	X	X
Area B2	X	X	X	X	X	X	X	X
Chemistry I (CHEM 1211 and CHEM 1211L)	X	X	X	X	X	X	X	X
Chemistry II (CHEM 1211 and CHEM 1211L)	X	X	X	X	X	X	x	x
Physics I (PHYS 2211 and PHYS 2211L)	X	X	X	X	X	X	X	X

Physics II (PHYS 2212 and PHYS 2212L)	X	X	X	X		X*	X	X
Biology I (BIOL 1107 and BIOL 1107)					X			
Calculus I (MATH 1190)	X	X	X	X	X	X	X	X
Calculus II (MATH 2202)	X	X	X	X	X	X	X	X
Differential Equations (MATH 2306)	X	X	X	X	X		X	X
Probability & Data Analysis (MATH 2332)		X		X			X	
Applications of Probability (ISYE 2600)							X	
Technical Writing (TCOM 2010)						X	X	
C++ Programming for Engineers (CSE 1311)		X		X		X	X	X
Engineering Graphics I (EDG 1211)								X

*(PHYS 2212 and PHYS 2212L) or (CHEM 1212 and CHEM 1212L) or (BIOL 1107 and BIOL 1107L)

Engineering Standing for Non-Engineering Majors

Non-engineering students who desire to enroll in upper-level engineering courses will need to satisfy the Engineering Standing prerequisite. A 2.7 GPA in the following courses will fulfill the requirement:

- ENGL 1101 - Composition I.

- ENGL 1102 - Composition II
- CHEM 121 I and CHEM 121 IL - Chemistry I
- PHYS 221 I and PHYS 221 IL - Physics I
- MATH 1190 - Calculus I
- MATH 2202 - Calculus II

12 additional credits from courses in the Southern Polytechnic College of Engineering and Engineering Technology or with prefixes CHEM, CS, CSE, IT, MATH, PHYS, or STAT.

Academic Programs

College of The Arts

Apparel and Textiles Minor

To be eligible for a minor in Apparel and Textile Technology, the student must complete 15 credit hours from the following courses with at least 9 hours of upper division course work.

Student outcomes (depending on choice of classes taken)

- a) To prepare graduates with the fundamentals of concept creation, computer-aided design and product development applicable to fashion/apparel industry (ATT2301, ATT 3602)
- b) To assess the issues relative to international product sourcing (ATT1300)
- c) To understand and interpret apparel/fashion marketing (ATT 3600, ATT 3800)
- d) To examine the fundamentals of retail merchandising (ATT 3100)
- e) To augment the student's central concentration through related courses in industrial engineering and business administration (ATT 4444, ATT 4670, ATT 4750)
- f) To prepare students with the foundation for lifelong learning

Course Requirements:

- ATT 1200: Apparel Design Graphics
- ATT 1300: International Sourcing
- ATT 1400: Principles of Merchandising
- ATT 2301: Apparel Computer-Aided Technical Design I
- ATT 3100: Fashion Merchandising
- ATT 3505: Fabric Formation and Design
- ATT 3600: Apparel Analysis and Product Development
- ATT 3602: Apparel Computer-Aided Technical Design II
- ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends
- ATT 4444: Quality Assurance for Textiles and Apparel
- ATT 4670: Apparel/Textile Business Practices
- ATT 4750: Advanced Design and Product Development

Program Total (15 Credit Hours)

Apparel and Textiles, B.A.T.

Fashion is clothing that is in style at a particular time.

The Apparel Textile Technology program strives to ensure that the graduating student acquires conceptual technology-based comprehension of the fashion/apparel industry. The curriculum focuses on concept, design, product development, apparel marketing, international sourcing, and merchandising while providing related courses in management and industrial engineering.

The Bachelor of Apparel and Textile degree provides entry to the industry in various professional areas such as:

- Technical Fashion Design
- International Sourcing
- Fashion Forecasting
- Product Development
- Merchandising
- Project Management
- Apparel Marketing
- Product Development
- Entrepreneurship

The program helps students prepare for a fast-paced apparel career through a technology-based curriculum combining the advantage of both the classroom and the laboratory.

After earning their degree, students find their niche in areas such as Fashion/apparel design, International sourcing, apparel marketing, merchandising, plant operations and entrepreneurship.

The business of designing, producing, sourcing and distributing sewn products such as apparel is one of the largest and most important industries in the USA and worldwide. Excellent starting salaries, rapid advancement, job diversity, and travel are just some of the benefits to apparel technology graduates. The challenge is for the graduating student to use the skills they have obtained in the major courses along with sound management principles to create apparel better, faster and more profitably.

General Education (42 Credit Hours)

See listing of requirements.

Required General Education Courses Specific to the Major

- STAT 1107: Introduction to Statistics

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ATT 1150: The History of Fashion
- ACCT 2100: Introduction to Financial Accounting
- ATT 1200: Apparel Design Graphics
- ATT 1300: International Sourcing
- ATT 1400: Principles of Merchandising
- TCOM 2010: Technical Writing
- One Credit Hour from Area D

Upper Division Major Requirements (36 Credit Hours)

- ATT 1000: Orientation
- ATT 2301: Apparel Computer-Aided Technical Design I
- ATT 3100: Fashion Merchandising
- ATT 3505: Fabric Formation and Design

- ATT 3600: Apparel Analysis and Product Development
- ATT 3602: Apparel Computer-Aided Technical Design II
- ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends
- ATT 4444: Quality Assurance for Textiles and Apparel
- ATT 4670: Apparel/Textile Business Practices
- ATT 4750: Advanced Design and Product Development
- ATT 4840: Textile/Apparel Senior Project
- MKTG 3100: Principles of Marketing

Upper-Level Electives (15 Credit Hours)

At least eight hours must be upper-level courses.

- IET 2449: Logistics and Supply Chain Management
- ATT 3150: Visual Merchandising
- ATT 3250: Math Applications in Merchandising
- ATT 3398: ATT Internship
- MGT 4190: International Management
- MGT 4001: Managing Organizations
- BLAW 2200: Legal and Ethical Environment of Business
- MGT 4002: Managing People
- MGT 3600: Introduction to International Business
- MGT 3100: Management and Behavioral Sciences

Free Electives (9 Credit Hours)

Any courses in university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: This program is exempt from the WELL 1000 requirement

Graduation Credit Hour Total (120 Credit Hours)

Apparel Product Development Certificate

The Fashion Design and Product Development program offers a Certificate in Apparel Product Development. The objective is to provide training and education to members of the apparel industry, graduates of fashion and design schools and other interested parties seeking to improve their skills. The courses may also be applied toward completing the Bachelor of Apparel and Textiles degree.

Student outcomes

- a) Demonstrate a knowledge of computer aided software for the apparel industry (ATT

- 3602)
- b) Work successfully in team environments (ATT 3602)
 - c) Disseminate information through written and oral formats (ATT 3602, ATT 4670)
 - d) Demonstrate a fundamental understanding of product development (ATT 3602, ATT 3800)
 - e) Demonstrate forecasting and fashion merchandising principles (ATT 3800, ATT 3100)

Requirements

Choose five courses from the following:

- ATT 1300: International Sourcing
- ATT 1400: Principles of Merchandising
- ATT 2301: Apparel Computer-Aided Technical Design I
- ATT 3100: Fashion Merchandising
- ATT 3505: Fabric Formation and Design
- ATT 3600: Apparel Analysis and Product Development
- ATT 3602: Apparel Computer-Aided Technical Design II
- ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends
- ATT 4444: Quality Assurance for Textiles and Apparel
- ATT 4670: Apparel/Textile Business Practices
- ATT 4750: Advanced Design and Product Development

Program Total (15 Credit Hours)

Art B.F.A.

Bachelor of Fine Arts Degree

College of the Arts, School of Art and Design

(470) 578-6139

The Bachelor of Fine Arts in Art is a professional degree program. The BFA prepares students for a variety of art and art-related careers or graduate school by providing a thorough grounding in fundamental principles and techniques with opportunities for emphasis in one or more arts

areas. This degree focuses on intensive work in art or design supported by a program of general studies. The BFA degree offers concentrations in (1) graphic communications, (2) drawing and painting, (3) photography (4) printmaking (5) sculpture, and (6) ceramics.

School of Art and Design Admittance Requirements

Each program of study is a sequentially based curriculum beginning the first semester of the freshman year. Students who delay entering the major until completion of the General Education Core Curriculum may prolong their academic careers. Entrance Portfolio Study in visual arts studio courses may not be initiated until the student has been fully accepted by Kennesaw State University and the School of Art and Design as an art major or art interest major. All prospective art majors are required to complete an application form and submit a portfolio of their artwork.

Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the department. Portfolio submission and review must take place before a student can proceed beyond ART 1100 and ART 1150. See the School of Art and Design admission application, portfolio content requirements and portfolio review deadline dates on the KSU School of Art and Design website, arts.kennesaw.edu/visual-arts. Applications and portfolios are sent to the College of the Arts Admissions and Enrollment Office.

Direct any additional questions about admission requirements to this office by calling 470-578-6614. Students who do not have portfolios or students whose portfolios are not accepted can begin their art studies as an art interest student. They may take introductory art courses based on available space and resubmit their portfolios for review. Transfer Admission Students who wish to transfer into the School of Art and Design from another institution follow the same admissions procedure as all new students. Transfer credit for courses in studio art is evaluated by portfolio review. Students enrolling at KSU for a second degree in art must also apply and submit a portfolio for review.

Program Requirements

BFA Concentration Review

Portfolio Students must be admitted by an upper-level second portfolio review to a BFA concentration area. Students are admitted to a BFA concentration based on available concentration openings and the quality of the student's submitted portfolio work. Refer to the department website and contact your concentration advisor for specific portfolio requirements and deadlines.

Change of Concentration

Students who wish to change their studio concentrations must resubmit a portfolio to the desired area of concentration and be accepted by that concentration area.

Dual Concentrations

Students electing a second concentration may use the Level I course of the second concentration as part of the distribution requirements. The other necessary courses in the second concentration may be placed as art electives in applicable cases for the first concentration. A second concentration may in some cases extend the degree beyond 123 credits. Students must follow the same process of portfolio submission and approval to be accepted into a second concentration.

Change of Degree Program

Students who wish to change degree programs in art must reapply and gain admission status to the new degree program.

Placement

The School of Art and Design holds the exclusive authority to determine appropriate admission level placement, credit evaluation of art courses in studio, art history, and art education.

Continuation in Program

All art students must maintain an overall GPA of 2.25 to remain in the program. Students falling below a 2.25 may have one semester to improve their GPA and continue; if they do not, they

are permanently dismissed from the program. Students may not fall below a 2.25 twice; a second incidence will result in immediate and permanent dismissal from the program. BFA in Studio Art majors must maintain a 3.0 GPA in their concentration areas. Falling below a 3.0 in the concentration or making one grade of "F" in the concentration area will result in dismissal from the concentration. Students dismissed from two concentrations may not continue in the BFA program. BS in Art Education majors must have a 2.75 overall GPA in order to be admitted to the Teacher Training Program of the Bagwell College of Education and to remain in the degree program. Furthermore, two or more "D" or "F" grades after admission to teacher education will result in a review by the Admissions and Academic Standing Committee. For a complete list of other requirements for art education students, refer to Admission and Retention in Teacher Education under Bagwell College of Education in the Undergraduate Catalog. All students must make timely and reasonable progress toward the degree. Non-enrollment or withdrawal from all classes for two or more consecutive semesters will require reapplication to the School of Art and Design.

General Education (42 Credit Hours)

See listing of requirements.

Lower-Division Major Requirements (Area F) (18 Credit Hours)

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 1200: Three-Dimensional Design
- ART 2150: Drawing II
- ART 2550: Computer Applications in Art
- ART 2990: Concept, Creativity, and Studio Practice

Entrance Portfolio

All prospective art majors are required to complete an application form and submit a portfolio of their artwork. Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the school. Portfolio submission and review must take place before a student can enroll in courses beyond ART 1100 and ART 1150.

Upper-Division Major Requirements (51 Credit Hours)

Distribution Requirements (9 Credit Hours)

Select three from the following outside the concentration area. At least one 2-D and one 3-D area must be represented.

- ART 3015: Electronic Illustration
- ART 3120: Ceramics I
- ART 3160: Painting I
- ART 3300: Sculpture I
- ART 3320: Jewelry and Small Metals I
- ART 3400: Digital Photography
- ART 3410: Film Photography

- ART 3500: Printmaking I
- ART 3550: Bookarts, Letterpress and Papermaking
- ART 3990: Art as a Public Profession

Art History (12 Credit Hours)

Both courses required for all art majors.

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art

Select two courses from the following:

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3850: Art Since 1900
- ARH 3990: Research Methods in Art History
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 3840: History of Illustration
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4900: Contemporary Art
- TPS 3493: Performance Art

BFA Concentration (30 Credit Hours)

Concentration Review Portfolio

Students select an area of concentration from those listed below. While enrolled in the second course of the concentration students will submit a portfolio of work in that area for review by the supervising faculty. Students who do not pass will not be allowed to continue in the program.

Graphic Communications Concentration

- ART 3015: Electronic Illustration
- ART 3020: Typography II
- ART 3021: Publication Design
- ART 3022: Pre-Press
- ART 4021: Advertising and Packaging
- ART 4022: Web Design for Artists
- ART 4023: Interactive Media Design
- ART 4024: Motion Graphics
- ART 4030: Design Practicum

Painting and Drawing Concentration

- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3260: Painting II
- ART 3265: Aqueous Media

Select a total of 12 credit hours from any combination of the following three repeatable courses:

- ART 4150: Advanced Study in Drawing
- ART 4255: Advanced Study of the Figure
- ART 4265: Advanced Study in Painting
- ART 4035: Concept Art

Choose two courses for a total of 6 credit hours:

- Any ART, ARH, or ARED 3000- or 4000-level elective choice

Photography Concentration

- ART 3150: Figure Drawing
- ART 3400: Digital Photography
- ART 3410: Film Photography
- ART 3420: Lighting for Photography and Video
- ART 4410: Advanced Study in Photography (repeat for a total of 9 credit hours)

Choose three courses for a total of 9 credit hours:

- Any ART, ARH, or ARED 3000- or 4000-level elective choice

Printmaking Concentration

- ART 3150: Figure Drawing
- ART 3500: Printmaking I
- ART 3510: Printmaking II
- ART 3520: Planographic Techniques I
- ART 3550: Bookarts, Letterpress and Papermaking

Select a total of 9 credit hours from any combination of the following two courses:

- ART 4510: Advanced Study in Printmaking (repeatable for credit)
- ART 4520: Planographic Techniques II

Choose two courses for a total of 6 credit hours:

- Any ART, ARH, or ARED 3000- or 4000-level elective choice

Ceramics Concentration

- ART 3150: Figure Drawing
- ART 3120: Ceramics I
- ART 3360: Wheel Throwing
- ART 3380: Mold Making and Slip casting
- ART 4360: Advanced Study in Ceramics (repeat for a total of 9 hours)

Choose three courses for a total of 9 credit hours:

- Any ART, ARH, or ARED 3000- or 4000-level elective choice

Sculpture Concentration

- ART 3150: Figure Drawing
- ART 3300: Sculpture I
- ART 3310: Sculpture II
- ART 4310: Advanced Study in Sculpture (repeat for a total of 12 hours)

Choose three courses for a total of 9 credit hours:

- Any ART, ARH, or ARED 3000- or 4000-level elective choice

Illustration Concentration

- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3265: Aqueous Media
- ART 3500: Printmaking I
- ART 3510: Printmaking II

- ART 3600: Illustration I
- ART 3610: Illustration II
- ART 4255: Advanced Study of the Figure
- ART 4600: Advanced Illustration

Illustration Art Studio

Select 15 credit hours from the following courses: no single course class in this area may be taken more than three times for credit.

- ART 4610: The Visual Essay
- ART 4620: Storytelling and Myth-Making
- ART 4630: Sketchbook Narrative
- ART 3705: Sequential Art I

Sequential Art

- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 3500: Printmaking I
- ANIM 3620: Storyboarding & Composition
- ART 3600: Illustration I
- ART 3705: Sequential Art I
- ART 3715: Sequential Art II
- ART 4255: Advanced Study of the Figure

Sequential Art Studio

- ART 4700: Advanced Sequential Art
- ART 4710: Narrative Arts
- ART 4720: Comic Storytelling
- ART 4735: Experimental Comics

Senior Review Exhibition (3 Credit Hours)

Choose one according to concentration

- ART 4980: Senior Portfolio and Applied Project (Graphic Communication)
or
- ART 4990: Senior Art Seminar and Exhibition (Studio Concentration)

Free Electives (6 Credit Hours)

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements

Graduation Credit Hour Total (123 Credit Hours)

Art Education B.S.

Bachelor of Science Degree

Leading to Certification for Grades P-12 College of the Arts, School of Art and Design

(470) 578-6139

http://www.kennesaw.edu/visual_arts/

The Bachelor of Science in Art Education leads to provisional teacher certification in grades pre-kindergarten through 12(P-12). This program is based on the Comprehensive Arts Education model with a curriculum that includes study in studio, art history, aesthetics and art criticism. The art education program is aligned with the National Association of Schools of Art and Design, the National Visual Arts Standards, the Georgia Performance Standards for Fine Arts Education, the Council for the Accreditation of Educator Preparation, and the Interstate Teacher Assessment and Support Consortium. The program provides students with a broad foundation in general education, extensive study in art, professional education and field experiences. All art education majors are required to take studio art and art history course work in lower-and-upper division major requirements while taking upper-division art education courses. This degree is listed as Major in Art Education by the Bagwell College of Education and in the Education Preparation Provider.

School of Art and Design Admittance Requirements

Each program of study is a sequentially based curriculum beginning the first semester of the freshman year. Students who delay entering the major until completion of the General Education Core Curriculum may prolong their academic careers. Entrance Portfolio Study in visual arts studio courses may not be initiated until the student has been fully accepted by Kennesaw State University and the School of Art and Design as an art major or art interest major. All prospective art majors are required to complete an application form and submit a portfolio of their artwork.

Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the department. Portfolio submission and review must take place before a student can proceed beyond

ART 1100 and ART 1150. See the School of Art and Design admission application, portfolio content requirements and portfolio review deadline dates on the KSU School of Art and Design website, www.kennesaw.edu/visual_arts. Applications and portfolios are sent to the College of the Arts Admissions and Enrollment Office.

Direct any additional questions about admission requirements to this office by calling 470-578-6614. Students who do not have portfolios or students whose portfolios are not accepted can begin their art studies as an art interest student. They may take introductory art courses based on available space and resubmit their portfolios for review. Transfer Admission Students who wish to transfer into the School of Art and Design from another institution follow the same admissions procedure as all new students. Transfer credit for courses in studio art is evaluated by portfolio review. Students enrolling at KSU for a second degree in art must also apply and submit a portfolio for review.

Program Requirements

BFA Concentration Review

Portfolio Students must be admitted by an upper-level second portfolio review to a BFA concentration area. Students are admitted to a BFA concentration based on available concentration openings and the quality of the student's submitted portfolio work. Refer to the department website and contact your concentration advisor for specific portfolio requirements and deadlines.

Change of Concentration

Students who wish to change their studio concentrations must resubmit a portfolio to the desired area of concentration and be accepted by that concentration area.

Dual Concentrations

Students electing a second concentration may use the Level I course of the second concentration as part of the distribution requirements. The other necessary courses in the second concentration may be placed as art electives in applicable cases for the first concentration. A second concentration may in some cases extend the degree beyond 123 credits. Students must follow the same process of portfolio submission and approval to be accepted into a second concentration.

Change of Degree Program

Students who wish to change degree programs in art must reapply and gain admission status to the new degree program.

Placement

The School of Art and Design holds the exclusive authority to determine appropriate admission level placement, credit evaluation of art courses in studio, art history, and art education.

Continuation in Program

All art students must maintain an overall GPA of 2.25 to remain in the program. Students falling below a 2.25 may have one semester to improve their GPA and continue; if they do not, they are permanently dismissed from the program. Students may not fall below a 2.25 twice; a second incidence will result in immediate and permanent dismissal from the program. BFA in Studio Art majors must maintain a 3.0 GPA in their concentration areas. Falling below a 3.0 in the concentration or making one grade of "F" in the concentration area will result in dismissal from the concentration. Students dismissed from two concentrations may not continue in the BFA program. BS in Art Education majors must have a 2.75 overall GPA in order to be admitted to the Teacher Training Program of the Bagwell College of Education and to remain in the degree program. Furthermore, two or more "D" or "F" grades after admission to teacher education will result in a review by the Admissions and Academic Standing Committee. For a complete list of other requirements for art education students, refer to Admission and Retention in Teacher Education under Bagwell College of Education in the Undergraduate Catalog. All students must make timely and reasonable progress toward the degree. Non-enrollment or withdrawal from all classes for two or more consecutive semesters will require reapplication to the School of Art and Design.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 1200: Three-Dimensional Design
- ART 2150: Drawing II
- ART 2550: Computer Applications in Art

Teaching Field Requirements (9 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning

Upper Division Major Requirements (29 Credit Hours)

(see note 1)

- ART 3120: Ceramics I
- ARED 3155: Art Education Life Drawing
- ART 3160: Painting I
- ART 3300: Sculpture I
- ART 3400: Digital Photography
- ART 3500: Printmaking I

Art History

(All three are required by all art education majors for a total of 9 credit hours)

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art
- ARH 3850: Art Since 1900

Senior Exhibition

Required of all Art Education Majors for graduation.

- ART 4990: Senior Art Seminar and Exhibition ²

Professional Education (P-12) Requirements (30 Credit Hours)

- ARED 3302: Teaching, Learning and Development in Visual Arts
- ARED 3304: Teaching Art History, Criticism and Aesthetics
- ARED 3308: Special Populations in Art Education
- ARED 3306: Materials, Methods and Management for Teaching Art (P-12)
- ARED 4410: Intercultural Curriculum Model

- ARED 4650: Yearlong Placement I
- ARED 4660: Yearlong Clinical Experience II
- EDUC 4610: Introduction to the Yearlong Clinical Experience

Program Total (128 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Notes:

¹ The upper level studio courses are basic requirements. Art education students may elect to take additional course work in specific studio areas such as drawing, painting, photography, printmaking, ceramics, sculpture, and graphic communications. Additional studio work is highly recommended for students planning to do graduate study.

² The senior seminar and exhibition must be arranged at least two semesters in advance. Contact the Art Gallery Office for specific details and for an application.

Art History B.A.

Bachelor of Arts

College of the Arts, School of Art and Design

(470) 578-6139

The Art History major introduces students to visual culture from a range of periods, regions, and contexts, and it teaches them how to analyze both objects and texts as historical evidence. It trains students to examine all aspects of visual culture in society, including its techniques, makers, patrons, viewers, and collectors. The program is rigorous, global, and interdisciplinary: students explore art history and its theoretical methods, and they take courses in related disciplines such as anthropology, film studies, gender and women's studies, history, literature, philosophy, and studio art. Students also study at least one ancient or modern language that is associated with their main area of interest. Throughout their programs, they learn how to do independent research, to construct effective arguments, and to produce well-written prose. Alumni have found the curriculum to be especially helpful preparation for work in museums, galleries, and graduate school. And because it improves marketable skills in critical thinking and communication, art history is not just a pre-professional major for future art historians. It is an effective major for students who plan to enter a variety of careers, including those in business, law, private and non-profit organizations, professional writing, and publishing.

School of Art and Design Admittance Requirements

Each program of study is a sequentially based curriculum beginning the first semester of the freshman year. Students who delay entering the major until completion of the General Education Core Curriculum may prolong their academic careers. Entrance Portfolio Study in visual arts studio courses may not be initiated until the student has been fully accepted by Kennesaw State University and the School of Art and Design as an art major or art interest major. All prospective art majors are required to complete an application form and submit a portfolio of their artwork.

Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the department. Portfolio submission and review must take place before a student can proceed beyond ART 1100 and ART 1150. See the School of Art and Design admission application, portfolio content requirements and portfolio review deadline dates on the KSU School of Art and Design website, www.kennesaw.edu/visual_arts. Applications and portfolios are sent to the College of the Arts Admissions and Enrollment Office.

Direct any additional questions about admission requirements to this office by calling 470-578-6614. Students who do not have portfolios or students whose portfolios are not accepted can begin their art studies as an art interest student. They may take introductory art courses based on available space and resubmit their portfolios for review. Transfer Admission Students who wish to transfer into the School of Art and Design from another institution follow the same admissions procedure as all new students. Transfer credit for courses in studio art is evaluated by portfolio review. Students enrolling at KSU for a second degree in art must also apply and submit a portfolio for review.

Program Requirements

BFA Concentration Review

Portfolio Students must be admitted by an upper-level second portfolio review to a BFA concentration area. Students are admitted to a BFA concentration based on available concentration openings and the quality of the student's submitted portfolio work. Refer to the department website and contact your concentration advisor for specific portfolio requirements and deadlines.

Change of Concentration

Students who wish to change their studio concentrations must resubmit a portfolio to the desired area of concentration and be accepted by that concentration area.

Dual Concentrations

Students electing a second concentration may use the Level I course of the second concentration as part of the distribution requirements. The other necessary courses in the second concentration may be placed as art electives in applicable cases for the first concentration. A second concentration may in some cases extend the degree beyond 123 credits. Students must follow the same process of portfolio submission and approval to be accepted into a second concentration.

Change of Degree Program

Students who wish to change degree programs in art must reapply and gain admission status to the new degree program.

Placement

The School of Art and Design holds the exclusive authority to determine appropriate admission level placement, credit evaluation of art courses in studio, art history, and art education.

Continuation in Program

All art students must maintain an overall GPA of 2.25 to remain in the program. Students falling

below a 2.25 may have one semester to improve their GPA and continue; if they do not, they are permanently dismissed from the program. Students may not fall below a 2.25 twice; a second incidence will result in immediate and permanent dismissal from the program. BFA in Studio Art majors must maintain a 3.0 GPA in their concentration areas. Falling below a 3.0 in the concentration or making one grade of "F" in the concentration area will result in dismissal from the concentration. Students dismissed from two concentrations may not continue in the BFA program. BS in Art Education majors must have a 2.75 overall GPA in order to be admitted to the Teacher Training Program of the Bagwell College of Education and to remain in the degree program. Furthermore, two or more "D" or "F" grades after admission to teacher education will result in a review by the Admissions and Academic Standing Committee. For a complete list of other requirements for art education students, refer to Admission and Retention in Teacher Education under Bagwell College of Education in the Undergraduate Catalog. All students must make timely and reasonable progress toward the degree. Non-enrollment or withdrawal from all classes for two or more consecutive semesters will require reapplication to the School of Art and Design.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Required:

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art
- FL 1001: Introduction to Foreign Language and Culture I
- FL 1002: Introduction to Foreign Language and Culture II
- FL 2001: Intermediate Foreign Language and Culture I

Select one of the following:

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I

Additional Foreign Language Requirement (3 Credit Hours)

- FL 2002: Intermediate Foreign Language and Culture II

Upper Division Major Requirements (27 Credit Hours)

Required:

- ARH 3990: Research Methods in Art History

Select eight of the following, including at least one from each area:

Ancient-Medieval Art and Architecture

- ARH 3200: Ancient American Art and Architecture

- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3398: Internship *
- ARH 4400: Directed Study *
- ARH 4490: Special Topics in Art History *

Renaissance-Contemporary Art and Architecture

- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3850: Art Since 1900
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 3840: History of Illustration
- ARH 4750: American Landscape Painting
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4900: Contemporary Art
- ARH 3398: Internship *
- ARH 4400: Directed Study *
- ARH 4490: Special Topics in Art History *

Global/Non-Western Art and Architecture

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3398: Internship *
- ARH 4400: Directed Study *
- ARH 4490: Special Topics in Art History *
- ASIA 4422: Archaeology of Asia

Note:

*With topic appropriate to area and approval of advisor

Senior Capstone Course (3 Credit Hours)

- ARH 4990: Senior Capstone Project

Related Studies (15 Credit Hours)

- Upper-division studies beyond the major requirements as approved by the academic advisor

Free Electives (12 Credit Hours)

Any courses in the university curriculum

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements

Graduation Credit Hour Total (123 Credit Hours)

Art History Minor

College of the Arts, School of Art and Design

(470) 578-6139

http://www.kennesaw.edu/visual_arts/Programs/

The Art History minor program welcomes students who are pursuing any major program of study at Kennesaw State. In their art-historical coursework, students learn about visual culture from a range of periods, regions, and cultures, and they develop skills in critical thinking, communication, and global engagement. The minor program therefore helps students to achieve many career and professional goals.

Required Course (6 Credit Hours)

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art

Select four from the following (12 Credit Hours)

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture

- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3840: History of Illustration
- ARH 3850: Art Since 1900
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4750: American Landscape Painting
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4870: History of Photography
- ARH 4900: Contemporary Art
- ARH 3398: Internship
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History

Note:

Students electing an art history minor who are also in the BFA in Art or BS in Art Education degree programs must take twelve additional art history credits beyond those required for their degrees. These additional credits may count only as free electives in their degree programs.

Program Total (18 Credit Hours)

Classical Studies Minor

Kristen Seaman

School of Art and Design

kseaman1@kennesaw.edu

http://www.kennesaw.edu/visual_arts/Programs/ClassicalStudiesMinor.shtml

This interdisciplinary minor program in the language, culture, and society of Greece and Rome includes courses in anthropology, art history, dance, English, history, Latin, music, philosophy, and theatre and performance studies.

Required Courses (15 Credit Hours)

Students must complete fifteen (15) credit hours of coursework in Classical Studies. At least twelve (12) hours cannot duplicate coursework for their majors, and at least nine (9) hours must be at the upper-division (3000-4000) level.

Choose one course from the following:

- ARH 2750: Ancient through Medieval Art
- HIST 3337: Greek and Roman History

Choose four from the following, with no more than one directed study

- ANTH 1102: Introduction to Anthropology
- ANTH 3305: Principles of Archeology
- ARH 2750: Ancient through Medieval Art
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- DANC 2000: Dance History I
- ENGL 3232: Topics in Drama (if classical/classical tradition)
- ENGL 4240: Rhetorical Theory
- ENGL 4380: World Literature Before 1800
- HIST 3337: Greek and Roman History
- LATN 1001: Introduction to Latin Language and Culture I
- LATN 1002: Introduction to Latin Language and Culture II
- LATN 2001: Intermediate Latin Language and Culture I
- LATN 2002: Intermediate Latin Language and Culture II
- LATN 3500: Topics in Latin Poetry (authors vary; may be repeated for credit)
- LATN 4490: Special Topics in Latin (authors vary; may be repeated for credit)
- LATN 4500: Topics in Latin Prose (authors vary; may be repeated for credit)
- MUSI 331 I: History of Music I
- PHIL 3000: Ancient and Medieval Philosophy
- PHIL 4450: Major Figures in Philosophy (if classical/classical tradition)
- TPS 3094: Performing Classical Myth
- TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance
- Any department's 4400 Directed Study, if the focus of the class is relevant to Classical Studies and it is approved by the Classical Studies advisor.
- Any department's 4490 Special Topics, if the focus of the class is relevant to Classical Studies and it is approved by the Classical Studies advisor.
- Study abroad credit if the focus is relevant to Classical Studies and is approved by the Classical Studies advisor.
- Transfer credit if the focus is relevant to Classical Studies and is approved by the Classical Studies advisor.

Program Total (15 Credit Hours)

Dance B.A.

The Department of Dance at Kennesaw State University fosters an environment of creative and scholarly learning, by engaging students as active scholar-artists. A variety of academic and

practical experiences aimed at developing a holistic understanding of dance as an art form, encourage students to investigate dance as a method of analysis, a mode of enquiry, and an aesthetic experience. Partnerships with professional dance and art organizations provide a variety of practical performance experiences for dance students in the community. Collaborative learning with professional artists and scholars, propel dance students into the profession while they are actively developing their skills as dance artists.

The Department of Dance offers a Bachelor of Arts in Dance as well as a Dance Minor degree.

Bachelor of Arts in Dance

The Department of Dance offers a Bachelor of Arts in Dance, with concentrations in modern and ballet. Students audition to be accepted into the dance major through four regularly scheduled auditions every year. A balanced curriculum of dance theory and practice, ensure the departmental commitment to training scholar-artists and preparing students to be successful in the professional world. Through the KSU Dance Company, students have the ability to audition and work at a pre-professional level. Guest artists and choreographers complement our program and expose students to professionals in the field. Our exclusive educational partnership with Atlanta Ballet and community partnerships with several leading dance organizations in the metro Atlanta area, provide internship and employment opportunities for our students and graduates.

Audition Requirements: BA in Dance

All students entering the dance major program must demonstrate technical and artistic aptitude capable of successfully completing the program of study. The audition process will consist of a 45-minute ballet barre, followed by a modern combination.

Students must bring appropriate footwear to the audition. The program recommends that women wear black leotards and pink tights, and men wear all black dance attire to the audition. The dance studio will be available 30 minutes prior to the audition for students to warm-up.

Following the audition class, students will receive detailed program information and have the opportunity to discuss their interests with the dance faculty. Students are not required to prepare a solo combination for the audition. Students will be notified about acceptance into the program within two weeks following the audition. To register for an audition and receive audition information, students must visit the dance website: arts.kennesaw.edu/dance/.

Dance minor students are **NOT REQUIRED** to audition for admission into the dance minor program. This audition requirement is only for students entering the dance major program.

All dance majors must secure KSU university admission in addition to being accepted into the dance major program. Students who have not yet secured university admission at the time of the dance major audition, will be granted admission into the dance major program contingent upon their KSU university admission.

To schedule a special audition (for students who are unable to attend the regularly scheduled audition due to unavoidable circumstances), please contact the Chair of the Department of Dance at 470-578-7673.

KSU Dance Company Auditions

Auditions for the KSU Dance Company are reserved for dance majors and minors. The

auditions are held every semester during the first week of classes. Students who are accepted into the company are required to register for DANC 2714 (Dance Performance- 2 credits) immediately following the audition. All company members are required to attend a mandatory company technique class held on Fridays from 9: 00 a.m. - 10: 45 a.m. Rehearsals begin at 3: 30 p.m. every Monday – Thursday and run until 9: 00 p.m.; additional rehearsals are held on Friday's from 11: 00 a.m.- 5: 00p.m. Students are required to attend two regularly scheduled rehearsals per week for each of the pieces in which they are cast. Casting is based on technical ability and schedule availability. For additional information visit the dance website: arts.kennesaw.edu/dance/.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- DANC 2000: Dance History I
- FL 2002: Intermediate Foreign Language and Culture II

- DANC 2713: Dance Production *
- or
- DANC 2714: Dance Performance *
- or
- DANC 2715: Dance for Camera *
- or
- DANC 4490: Special Topics *

Any two of the following:

- DANC 2100: African Dance Technique
- DANC 2200: Tap Dance Technique I
- DANC 2210: Tap Dance Technique II
- DANC 2500: Indian Dance Technique

Note:

*Dance Performance may be taken up to 4 times for credit; Dance Production may be taken up to 2 times for credit; Dance for Camera may be taken 1 time for credit; Special Topics in Dance may be taken 4 times for credit.

Upper Division Major Requirements (27 Credit Hours)

Upper Level Core Requirements (12 Credit Hours)

- DANC 4010: Dance History II
- DANC 4100: Dance Kinesiology
- DANC 4200: Analysis and Criticism of Dance
- DANC 4300: Dance Pedagogy

Plus one of the following concentrations: (15 Credit Hours)

Ballet Concentration

- DANC 3550: Choreography I
- DANC 4500: Choreography II

Any four from the following for a total of 8 credit hours:

Ballet II, III and Pas de Deux/Pointe can only be taken twice for credit; Ballet IV can be taken up to four times for credit.

- DANC 3500: Pas de Deux/Pointe
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique
- DANC 3130: Ballet IV: Classical Dance Technique

Plus one of the following:

- DANC 3001: Musical Theater Dance: Styles II
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III
- DANC 3230: Jazz Dance: Style IV
- DANC 3310: Modern Dance II: Contemporary Dance Techniques
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3600: Dance Improvisation
- DANC 3700: Body Conditioning and Somatics

Modern Concentration

- DANC 3550: Choreography I
- DANC 4500: Choreography II

Any four from the following for a total of 8 credit hours.

Modern II and III can be taken only twice for credit; Modern IV can be taken up to four times for credit.

- DANC 3310: Modern Dance II: Contemporary Dance Techniques
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3600: Dance Improvisation

Plus one of the following:

- DANC 3001: Musical Theater Dance: Styles II
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique

- DANC 3130: Ballet IV: Classical Dance Technique
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III
- DANC 3230: Jazz Dance: Style IV
- DANC 3500: Pas de Deux/Pointe
- DANC 3700: Body Conditioning and Somatics

Senior Seminar (3 Credit Hours)

- DANC 4800: Senior Seminar

Senior Project (3 Credit Hours)

- DANC 4900: Senior Project

Applied Profession Skills (3 Credit Hours)

- DANC 3398: Internship
- or
- DANC 4400: Directed Study

Related Studies (12 Credit Hours)

12 hours of upper-division studies beyond the major requirements as approved by the academic advisor. Lower-division courses may also be approved when appropriate.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Dance Minor

Dr. Ivan Pulinkala

Department of Dance

(470) 578-6789

arts.kennesaw.edu/dance

The dance minor is designed for students who wish to continue their dance training while pursuing another major field of study offered at Kennesaw State University. Of the 15 credit hours required for the dance minor, 9 must be taken at the upper-division level.

Required (3 Credit Hours)

- DANC 2000: Dance History I
- or
- DANC 4010: Dance History II

12 Credit Hours from any of the following courses:

- DANC 2100: African Dance Technique
- DANC 2200: Tap Dance Technique I
- DANC 2210: Tap Dance Technique II
- DANC 2500: Indian Dance Technique
- DANC 2713: Dance Production
- DANC 2714: Dance Performance
- DANC 2715: Dance for Camera
- DANC 3000: Musical Theatre Dance: Styles I
- DANC 3001: Musical Theater Dance: Styles II
- DANC 3100: Ballet I: Classical Dance Technique
- DANC 3110: Ballet II: Classical Dance Technique
- DANC 3120: Ballet III: Classical Dance Technique
- DANC 3130: Ballet IV: Classical Dance Technique
- DANC 3200: Jazz Dance: Styles I
- DANC 3210: Jazz Dance: Styles II
- DANC 3220: Jazz Dance: Styles III
- DANC 3230: Jazz Dance: Style IV
- DANC 3300: Modern Dance I: Contemporary Dance Technique
- DANC 3310: Modern Dance II: Contemporary Dance Techniques
- DANC 3320: Modern Dance III: Contemporary Dance Technique
- DANC 3330: Modern Dance IV: Contemporary Dance Technique
- DANC 3500: Pas de Deux/Pointe
- DANC 3550: Choreography I
- DANC 3600: Dance Improvisation
- DANC 3700: Body Conditioning and Somatics
- DANC 4100: Dance Kinesiology
- DANC 4200: Analysis and Criticism of Dance
- DANC 4300: Dance Pedagogy
- DANC 4490: Special Topics
- DANC 4500: Choreography II

Program Total (15 Credit Hours)

Digital Animation B.F.A

The Bachelor of Fine Arts in Digital Animation is a professional degree program. The BFA prepares students for a variety of animation and animation-related careers or graduate school

by providing a thorough grounding in fundamental principles and techniques. This degree focuses on intensive work in digital animation supported by a program of general studies.

Admission Requirements:

The School of Art & Design admits students in the Fall (August) and Spring (January) semester each year. You must submit a portfolio of work for entrance.

Note: Only five studio art classes can be taken prior to admission as a major:

- ART 1100 - Two-Dimensional Design and Color Theory
- ART 1150 - Drawing I
- ART 1200 - Three-Dimensional Design
- ART 2550 - Computer Applications in Art
- ART 2990 - Concept, Creativity, and Studio Practice

Entrance Portfolio Submission Deadlines

(For transfer students, current students or new, incoming first-year students)

Completed applications must be submitted by 5 p.m. on the following dates each year:

INCOMING FRESHMEN:

October 1 (For Spring Term acceptance)
February 1 (For Fall Term acceptance)

INCOMING TRANSFER STUDENTS:

August 1 (for Fall Term acceptance)
November 15 (for Spring Term acceptance)
April 15 (For Fall Term acceptance)

Portfolios submitted after 5 p.m. on these dates will not be reviewed until the next possible submission date. Approximately 3 weeks are required from the time we receive your portfolio to complete the review. For specific portfolio guidelines, please see:

http://arts.kennesaw.edu/visual-arts/become_an_art_major.php.

Once a student has completed the Lower-Division Major Requirements and while enrolled in the second course of their intended concentration area, they will submit a portfolio of work in Digital Animation for review by the supervising faculty.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 1200: Three-Dimensional Design
- ART 2150: Drawing II
- ART 2550: Computer Applications in Art
- ART 2990: Concept, Creativity, and Studio Practice

Entrance Portfolio

All prospective digital animation art majors are required to complete an application form and submit a portfolio of their artwork. Admission to degree programs in the School of Art and Design is contingent upon portfolio review and acceptance by the school. Portfolio submission and review must take place before a student can enroll in courses beyond ART 1100 and ART 1150.

Upper-Division Major Requirements (57 Credit Hours)

Art History (12 Credit Hours)

Required Courses:

- ARH 2750: Ancient through Medieval Art
- ARH 2850: Renaissance through Modern Art
- ARH 3840: History of Illustration

Select one course from the following:

- ARH 3000: Asian Art and Architecture
- ARH 3100: African Art and Architecture
- ARH 3150: Islamic Art and Architecture
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3300: Ancient Egyptian and Nubian Art and Architecture
- ARH 3320: Ancient Near Eastern Art and Architecture
- ARH 3350: Greek Art and Architecture
- ARH 3370: Roman Art and Architecture
- ARH 3400: Medieval Art and Architecture
- ARH 3500: Italian Renaissance Art and Architecture
- ARH 3600: Baroque Art and Architecture
- ARH 3700: Nineteenth-Century Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 3850: Art Since 1900
- ARH 3990: Research Methods in Art History
- ARH 4000: Historical Studio Practices
- ARH 4150: African-American Art
- ARH 4400: Directed Study
- ARH 4490: Special Topics in Art History
- ARH 4500: Women in Art
- ARH 4700: Victorian Art and Culture
- ARH 4820: History of Printmaking
- ARH 4840: History of Graphic Design
- ARH 4900: Contemporary Art

- TPS 3493: Performance Art

Animation Core (30 Credit Hours)

- ANIM 3600: Foundation Animation
- ART 3015: Electronic Illustration
- ART 3150: Figure Drawing
- ART 3160: Painting I
- ART 4024: Motion Graphics
- ANIM 3620: Storyboarding & Composition
- ANIM 3630: Environments for Animation
- ANIM 3640: Character Development
- ANIM 3650: Digital Animation Production I
- ANIM 3660: Digital Animation Production II

Animation Studio (15 Credit Hours)

Select 15 credits from among the following four repeatable classes.

No single class in this area may be taken more than three times for credit.

- ART 4255: Advanced Study of the Figure
- ART 4035: Concept Art
- ANIM 4630: 3D Animation Modeling
- ANIM 4650: Digital Animation Studio

Senior Review Exhibition (3 Credit Hours)

- ANIM 4660: Senior Animation Reel

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See list of requirements.

Graduate Credit Hour Total (123 Credit Hours)

Music B.A.

*Bachelor of Arts Degree
College of the Arts, School of Music
(470) 578-6151*

Bachelor of Arts in Music

Applied Instruction

All three undergraduate music degrees offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz concentration within the Bachelor of Music in Performance.

Admission to the School of Music

Admission to all degree programs in the School of Music is contingent upon admission to Kennesaw State University, completion of a supplemental application and successful audition with the School of Music, and demonstration of successful academic performance. All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again. In order to be eligible for admission to the School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program. Applied music study may not be initiated until the student has been fully accepted as a major or minor by the School of Music. All students enrolling at KSU for a second degree in music must meet the same departmental audition requirements required of all incoming students. Prior to admission to a music degree program, the prospective music major/minor is required to submit an application form to the College of the Arts and present an audition in the principal area of applied concentration. Applicants may also elect to audition on more than one instrument or an instrument and voice. Auditions, conducted by the music faculty, are held on the Kennesaw State University campus on specific dates.

Audition Dates and Requirements

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the School of Music website (<http://arts.kennesaw.edu/music/>). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; COTA-Admissions@kennesaw.edu.

Transfer Admissions

Students who wish to transfer into the School of Music from another institution follow the same admissions procedure as all new students (see above). Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition. Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU. The School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer into the program.

Change of Concentration

Students who wish to change their applied performance concentration must re-audition and be accepted for applied studio instruction in the new concentration.

Change of Degree Program

Students who wish to change degree programs in music must reaudition and gain admission status to the new degree program.

Placement

The School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, music history, piano proficiency, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for readmittance to the School of Music.

General Requirements

A variety of School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

Bachelor of Arts students must demonstrate competence in a foreign language through the level of FL 2002.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this major

- MUSI 1107: Music in Society (World Music section)

Graduation Requirement

Students will be required to pass with a satisfactory grade (S) in six semesters of MUAP 1101 to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MUAP 1111: Applied Lessons
- MUAP 1112: Applied Lessons
- MUAP 2211: Applied Lessons
- MUAP 2212: Applied Lessons
- MUSI 1111: Aural Skills I
- MUSI 1121: Music Theory I
- MUSI 1112: Aural Skills II
- MUSI 1122: Music Theory II
- MUSI 1143: Jazz Ensemble
- or

- MUSI 1144: University Philharmonic Orchestra
- or
- MUSI 1145: Wind Symphony
- or
- MUSI 1146: Chamber Singers
- or
- MUSI 1147: Wind Ensemble
- or
- MUSI 1148: Symphony Orchestra
- or
- MUSI 1149: Chorale

- MUSI 1165: Class Piano I
- MUSI 1166: Class Piano II

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course four times (MUSI 1143-MUSI 1149). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. 2 Pianists will substitute MUSI 2111 and MUSI 2112 (Aural Skills III and Aural Skills IV) for MUSI 1165 and MUSI 1166.

Upper Division Major Requirements (16 Credit Hours)

- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3320: Form and Analysis

Pianists in the Bachelor of Arts degree will count MUSI 2111: Aural Skills III and MUSI 2112: Aural Skills IV as Area F Credits. Pianists must take MUSI 3225: Mixed Chamber and MUSI 3333: Accompanying to fulfill those 2 credits.

Concentration (20 Credit Hours)

Please select one of the following concentrations

Theory Concentration

- MUSI 3324: Instrumentation/Arranging
- MUSI 4420: Counterpoint
- MUSI 4421: Contemporary Analytical and Compositional Techniques
- MUSI 4422: Theory Seminar
- MUSI 4495: Senior Seminar in Music
- Musicology or Ethnomusicology upper-elective class (3 credit hours)

- Other upper-level music electives (6 credit hours)

Composition Concentration

- MUSI 3371: Composition I
or
- MUSI 3326: Class Composition I

- MUSI 3372: Composition II
or
- MUSI 3327: Class Composition II

- MUSI 4471: Composition III
- MUSI 4472: Composition IV
- MUSI 4473: Composition V
- MUSI 3324: Instrumentation/Arranging
- MUSI 4420: Counterpoint
- MUSI 4421: Contemporary Analytical and Compositional Techniques
- MUSI 4495: Senior Seminar in Music

Upper-level music elective (2 credit hours)

Musicology Concentration

- MUSI 4412: Survey of American Music
- MUSI 4423: Current Directions in Musicology
- MUSI 4495: Senior Seminar in Music
- One upper-level Musicology elective class (3 credit hours)
- Theory or Composition upper-level elective classes (2-3 credit hours)
- Other upper-level music electives (7-8 credit hours)

Ethnomusicology Concentration

- MUSI 4412: Survey of American Music
- MUSI 4423: Current Directions in Musicology
- MUSI 4495: Senior Seminar in Music
- Two upper-level Ethnomusicology elective classes (6 credit hours)
- Theory or Composition upper-level elective class (2-3 credit hours)
- Other upper-level music electives (4-5 credit hours)

Voice Concentration

- MUAP 331 I: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 441 I: Applied Lessons
- MUSI 3331: Choral Conducting
- MUSI 3336: Diction for Singers

- MUSI 3390: Music Entrepreneurship
- MUSI 4495: Senior Seminar in Music

- MUSI 3346: Chamber Singers
- or
- MUSI 3349: Chorale

Other upper-level music electives (6 credits)

- Voice BA students will take either MUSI 3346 or MUSI 3349 four semesters for a total of 4 credits.

Related (Non-Music) Studies for All Concentrations (12 Credit Hours)

Twelve hours of upper-division non-music studies beyond the major requirements as approved by the academic advisor. Lower-division courses may also be approved when appropriate.

Non-Music Electives (12 Credit Hours)

Any non-music course in the university catalog.

Notes:

Six (6) hours of Foreign Language may be used to satisfy Non-Music Electives.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Music Education B.M.

Bachelor of Music in Music Education Degree Leading to Certification for Grades P-12

College of the Arts, School of Music

(470) 578-6151

This single field program is designed to prepare music teachers at all grade levels (pre-kindergarten through grade 12). It leads to P-12 teacher certification in the teaching field of music in Georgia. Candidates complete the equivalent of a major in music and a second major in pedagogical studies with an emphasis on teaching music. Students audition for placement into one of four music education concentrations (General Music, Choral, Band, and Orchestra). The Music Education degree is offered with applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, guitar, violin, viola, cello, double bass, and harp.

Applied Instruction

All three undergraduate music degrees offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz concentration within the Bachelor of Music in Performance.

Admission to the School of Music

Admission to all degree programs in the School of Music is contingent upon admission to Kennesaw State University, completion of a supplemental application and successful audition with the School of Music, and demonstration of successful academic performance. All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again. In order to be eligible for admission to the School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program. Applied music study may not be initiated until the student has been fully accepted as a major or minor by the School of Music. All students enrolling at KSU for a second degree in music must meet the same departmental audition requirements required of all incoming students. Prior to admission to a music degree program, the prospective music major/minor is required to submit an application form to the College of the Arts and present an audition in the principal area of applied concentration. Applicants may also elect to audition on more than one instrument or an instrument and voice. Auditions, conducted by the music faculty, are held on the Kennesaw State University campus on specific dates.

Audition Dates and Requirements

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the School of Music website (www.kennesaw.edu/music). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; COTA-Admissions@kennesaw.edu.

Transfer Admissions

Students who wish to transfer into the School of Music from another institution follow the same admissions procedure as all new students (see above). Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition. Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU. The School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer

into the program.

Change of Concentration

Students who wish to change their applied performance concentration must reaudition and be accepted for applied studio instruction in the new concentration.

Change of Degree Program

Students who wish to change degree programs in music must reaudition and gain admission status to the new degree program.

Placement

The School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, music history, piano proficiency, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for readmittance to the School of Music. General Requirements A variety of School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

General Requirements

A variety of School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

General Education (42 Credit Hours)

See listing of requirements

Specific General Education requirements for this major

- MUSI 1107: Music in Society (World Music section)

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MUAP 1111: Applied Lessons
- MUAP 1112: Applied Lessons
- MUSI 1111: Aural Skills I

- MUSI 1112: Aural Skills II
- MUSI 1121: Music Theory I
- MUSI 1122: Music Theory II
- MUAP 2211: Applied Lessons
- MUAP 2212: Applied Lessons

- MUSI 1143: Jazz Ensemble
or
- MUSI 1144: University Philharmonic Orchestra
or
- MUSI 1145: Wind Symphony
or
- MUSI 1146: Chamber Singers
or
- MUSI 1147: Wind Ensemble
or
- MUSI 1148: Symphony Orchestra
or
- MUSI 1149: Chorale

- MUSI 1165: Class Piano I
- MUSI 1166: Class Piano

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course four times (MUSI 1143-MUSI 1149). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

All choral and general music education majors must take a minimum of four semesters in a large choral ensemble.

Pianists will substitute MUSI2111 and MUSI 2112 (Aural Skills III and Aural Skills IV) for MUSI 1165 and MUSI 1166.

Teaching Field Requirements (35 Credit Hours)

Students will be admitted into one of the following concentrations pending a successful School of Music audition.

General Music Concentration (for vocalists)

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3165: Class Piano III

- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3331: Choral Conducting
- MUSI 3336: Diction for Singers

- MUSI 3343: Jazz Ensemble
or
- MUSI 3344: University Philharmonic Orchestra
or
- MUSI 3345: Wind Symphony
or
- MUSI 3346: Chamber Singers
or
- MUSI 3347: Wind Ensemble
or
- MUSI 3348: Symphony Orchestra
or
- MUSI 3349: Chorale

- MUSI 3201: Men's Ensemble (repeat three times)
or
- MUSI 3202: Women's Choir (repeat three times)

- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 2210: Music Education Colloquium
- MUED 3351: String Techniques
- MUED 3353: Guitar Techniques Class
- MUED 3371: Brass/Woodwind/Percussion Techniques

Senior recital required.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. General music education majors must take a minimum of four semesters in a large choral ensemble.

General Music Concentration (for pianists)

- MUAP 3311: Applied Lessons (1 semester in piano)
- MUAP 3312: Applied Lessons (2 semesters: one each in piano and voice)
- MUAP 4411: Applied Lessons (2 semesters: one each in piano with recital required and voice)
- MUAP 4412: Applied Lessons (1 semester: voice only)
- MUSI 2111: Aural Skills III

- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II

- MUSI 3331: Choral Conducting
or
- MUSI 3332: Instrumental Conducting

- MUSI 3333: Accompanying
- MUSI 3336: Diction for Singers

- MUSI 3343: Jazz Ensemble
or
- MUSI 3344: University Philharmonic Orchestra
or
- MUSI 3345: Wind Symphony
or
- MUSI 3346: Chamber Singers
or
- MUSI 3347: Wind Ensemble
or
- MUSI 3348: Symphony Orchestra
or
- MUSI 3349: Chorale

- MUSI 3201: Men's Ensemble (repeat 3 times)
or
- MUSI 3202: Women's Choir (repeat 3 times)

- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 2210: Music Education Colloquium
- MUED 3353: Guitar Techniques Class
- MUED 3355: Voice Techniques Class
- MUED 3371: Brass/Woodwind/Percussion Techniques

Senior recital required.

Pianists in the General Music Concentration will count MUSI 2111: Aural Skills III and MUSI 2112: Aural Skills IV as Area F credits.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. General music education majors must take a minimum of four semesters in a large choral ensemble.

General Music Concentration (for all other instruments)

- MUAP 3311: Applied Lessons (1 semester of your primary instrument)
- MUAP 3312: Applied Lessons (2 semesters: one each of your primary instrument and voice)
- MUAP 4411: Applied Lessons (2 semesters: one each of your primary instrument with recital and voice)
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3165: Class Piano III
- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II

- MUSI 3331: Choral Conducting
or
- MUSI 3332: Instrumental Conducting

- MUSI 3343: Jazz Ensemble
or
- MUSI 3344: University Philharmonic Orchestra
or
- MUSI 3345: Wind Symphony
or
- MUSI 3346: Chamber Singers
or
- MUSI 3347: Wind Ensemble
or
- MUSI 3348: Symphony Orchestra
or
- MUSI 3349: Chorale

- MUSI 3201: Men's Ensemble
or
- MUSI 3202: Women's Choir

- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 2210: Music Education Colloquium
- MUED 3353: Guitar Techniques Class
- MUED 3355: Voice Techniques Class
- MUED 3351: String Techniques
- MUED 3371: Brass/Woodwind/Percussion Techniques

Senior recital required.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. General music education majors must take a minimum of four semesters in a large choral ensemble.

Choral Concentration (for pianists)

- MUAP 3311: Applied Lessons (1 semester of piano)
- MUAP 3312: Applied Lessons (2 semesters: one each of piano and voice)
- MUAP 4411: Applied Lessons (2 semesters: one each of piano with recital required and voice)
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3331: Choral Conducting
- MUSI 3333: Accompanying
- MUSI 3336: Diction for Singers

- MUSI 3343: Jazz Ensemble
or
- MUSI 3344: University Philharmonic Orchestra
or
- MUSI 3345: Wind Symphony
or
- MUSI 3346: Chamber Singers
or
- MUSI 3347: Wind Ensemble
or
- MUSI 3348: Symphony Orchestra
or
- MUSI 3349: Chorale

- MUSI 3350: Advanced Choral Conducting/Literature
•
- MUSI 3201: Men's Ensemble (repeat 2times)
or
- MUSI 3202: Women's Choir (repeat 2times)

- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 2210: Music Education Colloquium

- MUED 3351: String Techniques
- MUED 3355: Voice Techniques Class
- MUED 3371: Brass/Woodwind/Percussion Techniques

Senior recital required.

Pianists in the Choral Concentration will count MUSI 2111: Aural Skills III and MUSI 2112: Aural Skills IV as Area F credits.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. Choral music education majors must take a minimum of four semesters in a large choral ensemble.

Choral Concentration (for vocalists and all other instruments)

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3165: Class Piano III
- MUSI 3166: Class Piano IV
- MUSI 3167: Class Piano V
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3331: Choral Conducting
- MUSI 3336: Diction for Singers
- MUSI 3343: Jazz Ensemble
or
- MUSI 3344: University Philharmonic Orchestra
or
- MUSI 3345: Wind Symphony
or
- MUSI 3346: Chamber Singers
or
- MUSI 3347: Wind Ensemble
or
- MUSI 3348: Symphony Orchestra
or
- MUSI 3349: Chorale
- MUSI 3350: Advanced Choral Conducting/Literature
- MUSI 3201: Men's Ensemble (repeat 2times)

- or
- MUSI 3202: Women's Choir (repeat 2times)
- MUSI 4434: Vocal Pedagogy for Ensemble Singing
- MUED 2210: Music Education Colloquium
- MUED 3351: String Techniques
- MUED 3371: Brass/Woodwind/Percussion Techniques

Senior recital required.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies. Choral music education majors must take a minimum of four semesters in a large choral ensemble.

Orchestra Concentration

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3332: Instrumental Conducting
- MUSI 3343: Jazz Ensemble
- or
- MUSI 3344: University Philharmonic Orchestra
- or
- MUSI 3345: Wind Symphony
- or
- MUSI 3346: Chamber Singers
- or
- MUSI 3347: Wind Ensemble
- or
- MUSI 3348: Symphony Orchestra
- or
- MUSI 3349: Chorale
- MUSI 3351: Advanced Instrumental Conducting/Literature

Take One:

- MUSI 3210: Classical Guitar Ensemble or
- MUSI 3211: Jazz Guitar Ensemble or
- MUSI 3212: Jazz Combo or
- MUSI 3220: Percussion Ensemble or
- MUSI 3221: String Ensemble or
- MUSI 3222: Woodwind Ensemble or
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble or
- MUSI 3225: Mixed Chamber

- MUED 2210: Music Education Colloquium
- MUED 3351: String Techniques
- MUED 3353: Guitar Techniques Class
- MUED 3355: Voice Techniques Class
- MUED 3357: Percussion Techniques Class
- MUED 3361: Brass Techniques
- MUED 3365: Woodwind Techniques Class I
- MUED 3366: Woodwind Techniques Class II
- MUED 4000: Advanced Pedagogy and Arranging

Senior recital required.

Pianists in the Orchestra Concentration will count MUSI 2111: Aural Skills III and MUSI 2112: Aural Skills IV as Area F credits. Pianists in the Orchestra Concentration must take two semesters of MUSI 3333: Accompanying.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

Band Concentration

- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUED 4000: Advanced Pedagogy and Arranging
- MUSI 3332: Instrumental Conducting

- MUSI 3343: Jazz Ensemble

- or
- MUSI 3344: University Philharmonic Orchestra
- or
- MUSI 3345: Wind Symphony
- or
- MUSI 3346: Chamber Singers
- or
- MUSI 3347: Wind Ensemble
- or
- MUSI 3348: Symphony Orchestra
- or
- MUSI 3349: Chorale

- MUSI 3351: Advanced Instrumental Conducting/Literature

Take One:

- MUSI 3210: Classical Guitar Ensemble
- MUSI 3211: Jazz Guitar Ensemble
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble
- MUSI 3225: Mixed Chamber

- MUED 2210: Music Education Colloquium
- MUED 3351: String Techniques
- MUED 3355: Voice Techniques Class
- MUED 3357: Percussion Techniques Class
- MUED 3361: Brass Techniques
- MUED 3365: Woodwind Techniques Class I
- MUED 3366: Woodwind Techniques Class II
- MUED 3370: Marching Band Techniques

Senior recital required.

Pianists in the Band Concentration will count MUSI 2111: Aural Skills III and MUSI 2112: Aural Skills IV as Area F credits. Pianists in the Band Concentration must take two semesters of MUSI 3333: Accompanying.

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course three times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

Professional Education (P-12) Requirements (33 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- MUED 3308: Music Education for Exceptional Students
- MUED 3301: General Methods, Materials and Curriculum

- MUED 3302: Choral Methods, Materials, and Curriculum
or
- MUED 3303: Instrumental Methods, Materials and Curriculum

- MUED 3305: Educational Literature and Technology
- MUED 4650: Yearlong Clinical Experience I
- MUED 4660: Yearlong Clinical Experience II
- INED 4437 Education for Linguistically Diverse Learners

Program Total (128 Credit Hours)

University-Wide Degree Requirements

See listing of requirements

Graduation Requirement

Students will be required to pass with a satisfactory grade (S) in six semesters of MUAP 1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.

Music Minor

Minor in Music

School of Music

(470) 578-6151

<http://www.kennesaw.edu/music/>

Students must be fully accepted into the School of Music as a minor by 1) being accepted into KSU, 2) completing a supplemental music application and 3) completing a successful audition for the music faculty. In order to graduate with a minor in music on the student permanent record, the student must complete all requirements and submit to the Registrar's Office a completed and approved "Declaration of Formal Minor" form along with the student's petition to graduate. The School of Music approves all music minors and advises students as to all specific requirements of the minor. At least six (6) credits must be done in residence at KSU.

Required

- MUSI 1111: Aural Skills I

- MUSI 1112: Aural Skills II
- MUSI 1121: Music Theory I
- MUSI 1122: Music Theory II
- MUAP 1101: Music Symposium (taken 4 times, see note below)
- MUAP 3311: Applied Lessons
- MUAP 3312: Applied Lessons
- MUAP 4411: Applied Lessons
- MUAP 4412: Applied Lessons
- MUSI 33XX (taken four times)

Take any two, may be repeated:

- MUSI 3200: Gospel Choir
- MUSI 3201: Men's Ensemble
- MUSI 3202: Women's Choir
- MUSI 3212: Jazz Combo
- MUSI 3220: Percussion Ensemble
- MUSI 3221: String Ensemble
- MUSI 3222: Woodwind Ensemble
- MUSI 3223: Brass Ensemble
- MUSI 3224: Piano Ensemble
- MUSI 3225: Mixed Chamber

Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course four times (MUSI 3343-MUSI 3349). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

Note:

Music minors will be required to pass with a satisfactory grade (S) in four semesters of MUAP 1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.

Program Total (18 Credit Hours)

Music Performance B.M.

*Bachelor of Music Degree
College of the Arts, School of Music
(470) 578-6151*

This program of study offers a Bachelor of Music degree. Students audition for placement into one of four music performance concentrations (Piano, Voice, Instrumental, Jazz).

Applied Instruction

All three undergraduate music degrees offer applied instruction in piano, voice, flute, oboe, clarinet, bassoon, saxophone, trumpet, horn, trombone, euphonium, tuba, percussion, harp, guitar, violin, viola, cello, and double bass. Only certain applied areas are offered in the jazz

concentration within the Bachelor of Music in Performance.

Admission to the School of Music

Admission to all degree programs in the School of Music is contingent upon admission to Kennesaw State University, completion of a supplemental application and successful audition with the School of Music, and demonstration of successful academic performance. All prospective music majors and minors are required to audition for the faculty on their principal instrument or voice. If the student is not accepted based on their first audition, they may complete a second audition for admission in a later term. If, however, they are not accepted after the second audition, the student may not audition again. In order to be eligible for admission to the School of Music, prospective transfer students and current KSU students interested in becoming a music major or minor must have a minimum adjusted GPA of 2.0 to audition and apply for entrance into a music degree program. Applied music study may not be initiated until the student has been fully accepted as a major or minor by the School of Music. All students enrolling at KSU for a second degree in music must meet the same departmental audition requirements required of all incoming students. Prior to admission to a music degree program, the prospective music major/minor is required to submit an application form to the College of the Arts and present an audition in the principal area of applied concentration. Applicants may also elect to audition on more than one instrument or an instrument and voice. Auditions, conducted by the music faculty, are held on the Kennesaw State University campus on specific dates.

Audition Dates and Requirements

Auditions are held on specific dates prior to the term a student begins study as a music student. A description of the audition process, including specific dates and requirements, is detailed in the Supplemental Application for the School of Music located on the School of Music website (www.kennesaw.edu/music). Questions regarding the audition process, audition dates, or requirements can be directed to the College of the Arts Office of Admissions and Student Services, 470-578-6614; COTA-Admissions@kennesaw.edu.

Transfer Admissions

Students who wish to transfer into the School of Music from another institution follow the same admissions procedure as all new students (see above). Transfer students are placed at an academic level in their principal area of applied concentration based upon the transferable amount of study earned at other institutions and the performance level demonstrated at the audition. Transfer credit for all course work is evaluated as quickly as possible after a student has been admitted to KSU. Students who transfer completed baccalaureate applied performance credit to KSU will be required to take additional applied performance study and additional ensemble credit so as to parallel remaining semesters of their designated degree program of study at KSU. The School of Music accepts students from other schools and colleges at Kennesaw State University on the same basis as new students and/or transfer students from other institutions. Interested and qualified students are encouraged to transfer into the program.

Change of Concentration

Students who wish to change their applied performance concentration must reaudition and be accepted for applied studio instruction in the new concentration.

Change of Degree Program

Students who wish to change degree programs in music must reaudition and gain admission status to the new degree program.

Placement

The School of Music holds the exclusive authority to determine appropriate admission level placement in the applied concentration, music theory, music history, piano proficiency, and continuity of study. Continuous study in the area of the applied concentration is a requisite. A lapse of two or more semesters of applied study will require an audition for readmittance to the School of Music. General Requirements A variety of School of Music regulations and policies affect music majors and minors. Included are requirements for recital and ensemble participation, recital and concert attendance, piano proficiency, departmental assessment procedures, and applied juries. Enrollment in an applied area of concentration is required of all music majors as specified in the degree program. Further, music students must be enrolled in an appropriate large ensemble every semester in which the student is enrolled in applied music. The appropriate ensemble director determines a student's large ensemble placement. To earn academic credit toward their degree, music students must earn a grade of "C" or higher in all music courses.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this major

- MUSI 1107: Music in Society (World Music section)

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MUSI 1121: Music Theory I
- MUSI 1111: Aural Skills I
- MUSI 1122: Music Theory II
- MUSI 1112: Aural Skills II
- MUAP 1121: Applied Lessons
- MUAP 1122: Applied Lessons
- MUAP 2221: Applied Lessons

- MUSI 1143: Jazz Ensemble ¹
or
- MUSI 1144: University Philharmonic Orchestra ¹
or
- MUSI 1145: Wind Symphony ¹
or
- MUSI 1146: Chamber Singers ¹
or
- MUSI 1147: Wind Ensemble ¹

- or
- MUSI 1148: Symphony Orchestra ¹
- or
- MUSI 1149: Chorale ¹

¹ Placement of students in large ensembles is determined by the appropriate large ensemble directors. Students will repeat one large ensemble course four times (MUSI 1143-MUSI 1149). Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

Upper Division Major Requirements (60 Credit Hours)

Please select one of the following concentrations

Piano Concentration

- MUSI 2221: Music Theory III
- MUSI 2111: Aural Skills III
- MUSI 2222: Music Theory IV
- MUSI 2112: Aural Skills IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3320: Form and Analysis
- MUSI 3331: Choral Conducting
- or
- MUSI 3332: Instrumental Conducting

- MUSI 3333: Accompanying (repeat 4 times)

- MUSI 3343: Jazz Ensemble ¹
- or
- MUSI 3344: University Philharmonic Orchestra ¹
- or
- MUSI 3345: Wind Symphony ¹
- or
- MUSI 3346: Chamber Singers ¹
- or
- MUSI 3347: Wind Ensemble ¹
- or
- MUSI 3348: Symphony Orchestra ¹
- or
- MUSI 3349: Chorale ¹

- MUSI 3224: Piano Ensemble (repeat two times)
- or
- MUSI 3225: Mixed Chamber (repeat two times)

- MUSI 3390: Music Entrepreneurship
- MUSI 4413: Piano Literature I
- MUSI 4414: Piano Literature II
- MUSI 4430: Piano Pedagogy I
- MUSI 4431: Piano Pedagogy II
- MUAP 2222: Applied Lessons
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons ²
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons ²

¹ Placement of students in large ensembles is determined by the appropriate large ensembles directors. Students will repeat one large ensemble course four times. Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

² Recital required.

Major Electives (11 credit hours)

- Chosen from any 3000-4000 level music courses.

Voice Concentration

- MUSI 1165: Class Piano I
- MUSI 1166: Class Piano II
- MUSI 2221: Music Theory III
- MUSI 2111: Aural Skills III
- MUSI 2222: Music Theory IV
- MUSI 2112: Aural Skills IV
- MUSI 3320: Form and Analysis
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3315: Vocal Literature
- MUSI 3331: Choral Conducting
- MUSI 3334: Italian and English Diction
- MUSI 3335: German and French Diction
- MUSI 3346: Chamber Singers ¹
or
- MUSI 3349: Chorale ¹
- MUSI 3352: Opera Theater (repeat 6 times)
- MUAP 2222: Applied Lessons
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons ²
- MUAP 4421: Applied Lessons

- MUAP 4422: Applied Lessons ²
- MUSI 3390: Music Entrepreneurship
- MUSI 4433: Voice Pedagogy

¹ Placement of students in large ensembles is determined by the appropriate large ensembles directors. Students will repeat one large ensemble course four times.

² Recital required.

Voice Concentration Foreign Language Requirement (6 credit hours)

- ITAL 1001: Introduction to Italian Language and Culture I
- GRMN 1001: Introduction to German Language and Culture I
or
- FREN 1001: Introduction to French Language and Culture I

Major Electives (5 credit hours)

- Chosen from any 3000-4000 level music courses.

Instrumental Concentration

- MUSI 1165: Class Piano I
- MUSI 1166: Class Piano II
- MUSI 2221: Music Theory III
- MUSI 2111: Aural Skills III
- MUSI 2222: Music Theory IV
- MUSI 2112: Aural Skills IV
- MUSI 3320: Form and Analysis
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3332: Instrumental Conducting
- MUSI 3343: Jazz Ensemble ^{1 3}
or
- MUSI 3344: University Philharmonic Orchestra ¹
or
- MUSI 3345: Wind Symphony ¹
or
- MUSI 3347: Wind Ensemble ¹
or
- MUSI 3348: Symphony Orchestra ¹
- MUAP 2222: Applied Lessons
- MUAP 3321: Applied Lessons

- MUAP 3322: Applied Lessons ²
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons ²

- MUSI 3210: Classical Guitar Ensemble ^{3*}
or
- MUSI 3211: Jazz Guitar Ensemble ^{3*}
or
- MUSI 3212: Jazz Combo ^{3*}
or
- MUSI 3220: Percussion Ensemble ^{3*}
or
- MUSI 3221: String Ensemble ^{3*}
or
- MUSI 3222: Woodwind Ensemble ^{3*}
or
- MUSI 3223: Brass Ensemble ^{3*}
or
- MUSI 3225: Mixed Chamber ^{3*}

- MUSI 3390: Music Entrepreneurship
- MUSI 4435: (Name of Instrument) Pedagogy and Literature

¹ Placement of students in large ensembles is determined by the appropriate large ensembles directors. Students will repeat one large ensemble course four times. Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

² Recital required.

³ Classical guitarists must take all five credits in Classical Guitar Ensemble. Jazz guitarists must take all five credits in Jazz Guitar Ensemble. Percussionists must take all five credits in Percussion Ensemble.

*Repeat five times.

Major Electives (15 credit hours)

- Chosen from any 3000-4000 level music courses.

Jazz Concentration

- MUSI 1165: Class Piano I
- MUSI 2111: Aural Skills III
- MUSI 2112: Aural Skills IV
- MUSI 2221: Music Theory III
- MUSI 2222: Music Theory IV
- MUSI 3311: History of Music I
- MUSI 3312: History of Music II
- MUSI 3319: History of Jazz

- MUSI 3320: Form and Analysis
- MUSI 3322: Jazz Theory and Composition
- MUSI 3323: Jazz Arranging
- MUSI 3332: Instrumental Conducting

- MUSI 3343: Jazz Ensemble ¹
or
- MUSI 3344: University Philharmonic Orchestra ¹
or
- MUSI 3345: Wind Symphony ¹
or
- MUSI 3347: Wind Ensemble ¹
or
- MUSI 3348: Symphony Orchestra ¹
- MUSI 3353: Jazz Improvisation I
- MUSI 3354: Jazz Improvisation II
- MUSI 3355: Jazz Improvisation III
- MUSI 3360: Jazz Piano
- MUAP 2222: Applied Lessons
- MUAP 3321: Applied Lessons
- MUAP 3322: Applied Lessons ²
- MUAP 4421: Applied Lessons
- MUAP 4422: Applied Lessons ²

- MUSI 3211: Jazz Guitar Ensemble ³
or
- MUSI 3212: Jazz Combo ³

- MUSI 3390: Music Entrepreneurship
- MUSI 4436: Jazz Pedagogy

¹ Placement of students in large ensembles is determined by the appropriate large ensembles directors. Students will repeat one large ensemble course four times. Jazz Ensemble may be used for up to four large ensemble credits only by permission of the Director of Jazz Studies.

² Recital required.

³ Repeat 5 times. Jazz guitarists must take all five credits in Jazz Guitar Ensemble.

Major Electives (6 Credit Hours)

- Choose from any 3000-4000 level music courses.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Requirement

Students will be required to pass with a satisfactory grade (S) in six semesters of MUAP1101: Music Symposium, to be eligible to graduate. They must be enrolled every semester in this course until the requirement is accomplished.

Graduation Credit Hour Total (123 Credit Hours)

Theatre and Performance Studies B.A.

Bachelor of Arts Degree

*College of the Arts, Department of Theatre and Performance Studies
(470) 578-3123*

The Bachelor of Arts in Theatre and Performance Studies is fully accredited by NAST (the National Association of Schools of Theatre). Accreditation follows a rigorous evaluation process that includes self-study and peer review. The major provides student artists with a foundation in theatre as an historic, global, and aesthetic form, through the study of a variety of performance texts and styles, from classical and modern drama to musical theatre, folk and literary narratives, performance art, and classical and contemporary poetry. Emphasizing the interrelationship between theory and praxis, the major prepares students for entry into the profession or for graduate study in theatre or other related fields. The Department of Theatre Performance Studies offers a Bachelor of Arts in Theatre and Performance Studies, with concentrations in acting, performance studies, musical theatre and design/technology.

The Department of Theatre and Performance Studies at Kennesaw State University supports the liberal arts mission of the University by engaging students as artists, scholars, and active citizens in their social worlds. Students learn through praxis, encountering performance as the intersection of rigorous critical investigation and practical, engaged, learning. Taking a uniquely holistic view of performance to include the realms of theatrical production, storytelling, dance, performance art, and everyday life, the department challenges students to recognize performance as a method of analysis, a mode of inquiry, and a creative and aesthetic act.

Our program offers a wide range of courses dedicated to developing students as scholar-artists, viewing both live performance as scholarship and writing as a creative act. The program provides opportunities for students to create, witness, and critique performances based on a variety of sources: from dramatic scripts to literary and folk traditions, original ethnographic field research, and personal narratives. Inherent within this premise lies an ardent commitment to provide global learning opportunities to students as vital to their individual and social growth. It is the department's mission to push the discipline forward in integrating theatre, dance and performance studies approaches, offering for our campus and our community a broad spectrum of voices, cultures, texts, periods, and styles of performance experiences.

Admission Requirements

High school GPA requirement of 3.0 or higher for entering first-year freshmen. College GPA requirement of 3.0 or higher for entering transfers and currently-enrolled KSU students seeking a change in major.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- TPS 1500: Introduction to Theatre Studies
- TPS 1600: Introduction to Performance Studies
- TPS 1713: Stagecraft
- TPS 2713: Theatre Production *
- FL 2002: Intermediate Foreign Language and Culture II
- TPS 2203: Acting I: Principles of Acting

Note:

*Theatre Production must be taken two times for two credits each.

Upper Division Major Requirements (27 Credit Hours)

Upper Level Core Requirements (18 Credit Hours)

- TPS 3000: Performing Literature
- TPS 3403: Play Analysis for Production
- TPS 3813: Visual Imagination
- TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance

- TPS 3493: Performance Art
or
- TPS 3600: Performing Culture

- TPS 4523: History and Theory II: Neoclassical through Romantic Theatre and Performance
or
- TPS 4533: History and Theory III: Victorian through Contemporary Theatre and Performance

Plus one of the following concentrations: (9 Credit Hours)

Acting Concentration*

- TPS 3223: Acting II: Intermediate Acting

Plus two of the following:

- TPS 3200: The Actor's Voice
- TPS 3213: Acting for the Camera
- TPS 3243: Acting III: Acting Styles
- TPS 4243: Audition Practicum

Note:

*ENGL 3232 - Topics in Drama, and ENGL 4340 - Shakespeare, are preapproved as nine hours of the related studies electives for TPS majors completing the Acting Concentration.

Performance Studies Concentration*

(Any three of the following):

- TPS 3093: Performing Folktales and Fairy Tales
- TPS 3094: Performing Classical Myth
- TPS 3193: Performing World Myth
- TPS 3194: Performing Personal Narrative
- TPS 3400: Performance Composition
- TPS 3493: Performance Art **
- TPS 3500: Dramaturgy
- TPS 3600: Performing Culture **
- TPS 4313: Principles of Directing
- TPS 4323: Directing Styles
- TPS 4333: Adapting and Staging Literary Texts

Note:

*COM 2129 - Public Speaking and WRIT 3110 - Playwriting are preapproved as nine hours of the related studies electives for TPS majors completing the Performance Studies Concentration.

**If a student enrolled in the Performance Studies Concentration chooses to take both TPS 3493 Performance Art and TPS 3600, one of the courses may serve as a major requirement while the other serves as an upper-division elective.

Design/Technology Concentration*

- TPS 3823: Design Skills
- TPS 3853: Period Styles

Plus one of the following:

- TPS 4813: Scene Design
- TPS 4823: Lighting Design for the Stage
- TPS 4833: Costume Design

Musical Theatre Concentration*

- TPS 3700: Music Theory for Musical Theatre
- TPS 3713: Acting in Musical Theatre
- DANC 3000: Musical Theatre Dance: Styles I

- TPS 3703: Musical Theatre History and Literature

Note:

* MUSI 1121 Music Theory I, MUAP 3320 Performance - Secondary Applied, MUSI 3349 Chorale, TPS 3320 Musical Theatre Performance: Applied Voice, and any DANC courses that are 2000-level and above, are pre-approved related studies electives for TPS majors completing the Musical Theatre Concentration.

Senior Seminar (3 Credit Hours)

- TPS 4999: Senior Seminar: The Scholar Artist

Applied Professional Sequence (6 Credit Hours)

Students must take a total of 6 hours from the following courses

- TPS 4015: Musical Theatre Techniques
- TPS 3050: Applied Performance and Production
- TPS 3398: Internship
- TPS 4010: Storytelling Practicum
- TPS 4020: Musical Theatre Ensemble
- TPS 4050: Advanced Applied Performance and Production
- TPS 4040: Stage Combat
- TPS 4030: Actor's Studio
- TPS 4400: Directed Study
- TPS 4490: Special Topics
- SA 4490: Upper-division Study Abroad

Related Studies (12 Credit Hours)

12 hours of upper-division studies beyond the major requirements as approved by the academic advisor. Lower-division courses may also be approved when appropriate.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

College of Architecture and Construction Management

Architecture Minor

The minor in Architect provides students with focused introduction to the profession in one of three general areas; History/Theory, Environmental Technology or Structures. The Minor in Architecture requires a minimum of 15 hours including:

- A minimum of 9 credits must be completed in 3000 and 4000 level course work
- A maximum of 6 credits in ARCH 1000, ARCH 2242, ARCH 2111, ARCH 2311 may be applied to this requirement.
- Architecture upper division free electives are limited to 3 credits

All courses must be passed with a 'C' grade or higher. Students seeking the minor in architecture should consult the Minor course flow chart for prerequisite requirements.

Required Courses (Choose 12 Credit Hours)

- ARCH 1000: Introduction to Architecture
- ARCH 2242: Design Communication II
- ARCH 2111: Architecture Culture I: Early Civilizations & Medieval
- ARCH 3112: Architecture Culture II - The Renaissance through 1850
- ARCH 3113: Architecture Culture III: 1850 through 1945
- ARCH 4114: Architecture Cultures IV: The Development of Architecture into the Twenty-First Century
- ARCH 2311: Environmental Tech I -Systems Selection and Materials
- ARCH 3313: Environmental Technology II: Human Comfort and Building Systems
- ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics
- ARCH 2211: Architecture Structures I - Introduction to Structures
- ARCH 3211: Architecture Structures II: Concrete and Lateral Loads
- ARCH 3212: Architecture Structures III: Steel and Wood
- ARCH 4116: Urban Planning and Design Theory

Electives (3 Credit Hours)

- Choose any ARCH 3000 level and up courses

Program Total (15 Credit Hours)

Architecture, B.ARCH

The Bachelor of Architecture Degree

Department of Architecture

Marietta Campus

Phone: 678-915-7253

Fax: 678-915-7228

Kennesaw State University's College of Architecture and Construction Management is the only

public state institution in Georgia to offer a five-year professional degree: the Bachelor of Architecture. The curriculum is organized as a 2+3 program. The Lower Division constitutes the first two years and its curriculum is designed to introduce basic skill sets, fundamentals of design and building technologies. The Upper Division constitutes last three years of the program. Its curriculum is designed to enhance the students understanding of the relationship between people and the built environment, the role of technology, structures in comprehensive design, the importance of history and theory to design and introduce the broader challenges of urbanism and design research. Students must pass a portfolio and curriculum review to proceed from the Lower Division to the Upper Division

The Architecture Program offers unique educational opportunities for its students including: the Summer Workshop, the Focus Studio: a research based studio with and invited studio critic, and an individually structured Thesis project. The Architecture Program also offers students organized travel opportunities within the U.S. and abroad, including a summer program in Dessau Germany.

Vision and Mission

The mission of the Architecture Department is to expand and extend the University's mission into the realm of Architecture, preparing students for professional practice in the design, planning, development and stewardship of the built environment. The Architecture Program fosters invention, creativity and craft through hands- on exploration that is the foundation of technological innovation. Moreover, knowledge of cultural diversity, communication, history and criticism is seen as inseparable from the application of such innovation. This holistic process is "the making of architecture."

NAAB Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture and the Doctor of Architecture. A program may be granted a 6-year, 3-year or 2- year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within 6 years of achieving candidacy, if its plan is properly implemented. In order to meet the educational requirement set forth by the National Council of Architectural Registration Boards, an applicant for an NCARB Certificate must hold a professional degree in architecture from a program accredited by the NAAB; the degree must have been awarded not more than two years prior to initial accreditation. However, meeting the educational requirement for the NCARB Certificate may not be equivalent to meeting the education requirement for registration in a specific jurisdiction. Please contact NCARB for more information.

Kennesaw State University, Department of Architecture offers the following NAAB- accredited degree:

5- year B. Arch (152 undergraduate credits)

Next accreditation visit for all programs: 2022.

5 Year Professional Degree

General Education (42 Credit Hours)

See listing of requirements.

General Education courses specific to the Architecture Major:

- MATH 1113: Precalculus
- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ARCH 1001: Architecture Studio I
- ARCH 1002: Architecture Studio II
- ARCH 2003: Architecture Studio III
- ARCH 1241: Design Communication I
- ARCH 2242: Design Communication II
- ARCH 1000: Introduction to Architecture

Other Requirements Specific to the Major:

- ARCH 2004: Architecture Studio IV
- ARCH 3112: Architecture Culture II - The Renaissance through 1850
- ARCH 2211: Architecture Structures I - Introduction to Structures
- ARCH 2311: Environmental Tech I -Systems Selection and Materials
- ARCH 2111: Architecture Culture I: Early Civilizations & Medieval

Upper-Division Major Requirements

- ARCH 3011: Architecture Studio V
- ARCH 3012: Architecture Studio VI
- ARCH 3113: Architecture Culture III: 1850 through 1945
- ARCH 3211: Architecture Structures II: Concrete and Lateral Loads
- ARCH 3212: Architecture Structures III: Steel and Wood
- ARCH 3313: Environmental Technology II: Human Comfort and Building Systems
- ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics
- ARCH 4013: Architecture Studio VII: Integrative Design
- ARCH 4014: Architecture Studio VIII: Urban Lab
- ARCH 4114: Architecture Cultures IV: The Development of Architecture into the

Twenty-First Century

- ARCH 4116: Urban Planning and Design Theory
- ARCH 4117: Thesis Prep
- ARCH 4224: Professional Practice I: Codes and Technical Documents
- ARCH 4225: Professional Practice II - Cost Control
- ARCH 4226: Professional Practice III: Practice and Ethics
- ARCH 5015: Focus Studio
- ARCH 5016: Thesis Research
- ARCH 5017: Thesis Studio

Electives (17 Credit Hours)*

*The free elective pursued towards the BARCH degree should be at or above the 2000 level or equivalent. Transfer credits not meeting this threshold may be accepted upon review and approval. These criteria will also apply to courses that were completed towards a minor that is no longer pursued.

Program Total: 150 Credit Hours

University-Wide Degree Requirements

See listing of requirements

Note: Program is exempt from WELL 1000 course requirement

Graduation Credit Hour Total (150 Credit Hours)

Construction Management Minor

Requirements

- CM 2000: Construction Graphics
- CM 3000: Computer Applications in Construction
- CM 3110: Residential and Light Construction Methods
- CM 3410: Construction Quantity Surveying
- CM 4510: Construction Scheduling

Program Total (15 Credit Hours)

Construction Management, B.S.

Bachelor of Science Degree

College of Architecture and Construction Management

Department of Construction Management

678-915-7221

The Construction Management Department offers students the bachelor's degree in Construction Management and the Master of Science in Construction Management. While

professional experience is preferred, students with a bachelor's degree or higher in architecture, construction management, technology, engineering, or related fields are encouraged to apply. Certificates are also available in project management, land development, and specialty construction.

General Education (42 Credit Hours)

See listing of requirements.

General Education Requirements Specific to this Major

- COM 1100: Human Communication (Area B)
- STS 1101: Science, Technology, and Society (Area E)
- MATH 1160: Elementary Applied Calculus (Area D)

Lower Division Requirements (Area F) (18 Credit Hours)

Grade of "C" or higher required.

- CM 1000: Orientation to Construction and Development
- CM 2000: Construction Graphics
- CM 2210: Introduction to Structures
- ACCT 2100: Introduction to Financial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- SURV 2200: Construction Measurements

Upper Level Major Requirements (48 Credit Hours)

Grade of "C" or higher required.

- CM 3000: Computer Applications in Construction
- CM 3040: Building Information Modeling I
- CM 3110: Residential and Light Construction Methods
- CM 3180: Mechanical and Electrical Building Systems
- CM 3400: Risk and Quality Management
- CM 3410: Construction Quantity Surveying
- CM 3800: Construction Finance
- CM 4510: Construction Scheduling
- CM 4560: Construction Project Management
- CM 4710: Construction Safety
- CM 4760: Construction and Real Estate Property Law
- CM 4900: Capstone Project
- IS 3100: Information Systems Management
- MGT 3100: Management and Behavioral Sciences
- MKTG 3100: Principles of Marketing
- TCOM 2010: Technical Writing

Choose One of the Following Concentrations (12 Credit Hours):

Grade of "C" or higher required.

General Concentration

- CM 3500: Building Codes
- CM 3260: Temporary Structures
- CM 3420: Construction Estimating and Bid Preparation
- CM 4660: Advanced Scheduling & Project Management

Land Development Concentration

- CM 3310: Real Estate Development Practices
- CM 3440: Heavy Estimating
- CM 3710: Market and Site Analysis
- CM 4620: Development Process and Finance

Specialty Construction Concentration

- CM 3280: Building Mechanical and Electrical Codes and Loads
- CM 3480: Mechanical and Electrical Systems Estimating
- CM 4190: Sustainable Operation & Maintenance
- CM 4480: Design/Build MEP Systems

Heavy Construction Concentration

- CM 3170: Heavy Construction Practices
- CM 3440: Heavy Estimating
- CM 4230: Heavy Materials & Temporary Structures
- CM 4660: Advanced Scheduling & Project Management

Facilities Management Concentration

- CM 3270: Facility Management Strategies
- CM 3290: Facilities Management Practices
- CM 3310: Real Estate Development Practices
- CM 4190: Sustainable Operation & Maintenance

Required Electives (6 Credit Hours)

Two three-hour electives required. Choose any two courses from Concentrations other than selected Concentration.

Program Total (126 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Degree program is exempt from WELL 1000 course requirement

Graduation Credit Hour Total (126 Credit Hours)

Facility Management Certificate

The Facility Management Certificate program is designed to provide students with the skills related to the ongoing operation of built environments in accordance with IFMA eleven core competencies. This Certificate program requires 18 credit hours and can potentially be completed in one year.

Core Courses (12 Credit Hours)

- CM 3180: Mechanical and Electrical Building Systems
- CM 3270: Facility Management Strategies
- CM 3290: Facilities Management Practices
- CM 4190: Sustainable Operation & Maintenance

Electives (6 Credit Hours)

Choose two of the following:

- CM 3110: Residential and Light Construction Methods
- CM 3190: Sustainable Construction
- CM 3310: Real Estate Development Practices
- CM 3400: Risk and Quality Management
- CM 3410: Construction Quantity Surveying
- CM 3800: Construction Finance
- CM 4620: Development Process and Finance

Program Total (18 Credit Hours)

Land Development Certificate

In addition to providing a student with a core knowledge of construction materials and methods, the Certificate in Land Development is designed for those with an interest in the pre-construction process, including market analysis, site planning, development law and finance. This Certificate program requires 18 credit hours and can potentially be completed in one year.

Program Requirements:

Core Courses (12 Credit Hours)

- CM 3310: Real Estate Development Practices
- CM 3710: Market and Site Analysis
- CM 3800: Construction Finance
- CM 4620: Development Process and Finance

Electives (6 Credit Hours)

Choose 2 from the following courses:

- CM 3000: Computer Applications in Construction
- CM 3040: Building Information Modeling I
- CM 3110: Residential and Light Construction Methods
- CM 3190: Sustainable Construction
- CM 3400: Risk and Quality Management
- CM 3410: Construction Quantity Surveying
- CM 3440: Heavy Estimating
- CM 4760: Construction and Real Estate Property Law

Program Total: (18 Credit Hours)

Project Management Certificate

The Certificate in Project Management is designed to provide students with skills used by construction managers, such as estimating, scheduling and general knowledge on how to manage construction projects. This Certificate program requires 18 credit hours and can potentially be completed in one year.

Program Requirements:

Core Courses (12 Credit Hours)

- CM 2000: Construction Graphics
- CM 3000: Computer Applications in Construction
- CM 3110: Residential and Light Construction Methods
- CM 4560: Construction Project Management

Electives (6 Credit Hours)

Choose 2 of the following courses:

- CM 3040: Building Information Modeling I
- CM 3190: Sustainable Construction
- CM 3410: Construction Quantity Surveying
- CM 3420: Construction Estimating and Bid Preparation
- CM 4510: Construction Scheduling
- CM 4660: Advanced Scheduling & Project Management
- CM 4710: Construction Safety
- CM 4760: Construction and Real Estate Property Law

Program Total: (18 Credit Hours)

Specialty Construction Certificate

The Specialty Construction Certificate program is designed for students who are interested in mechanical, electrical and plumbing projects, with an emphasis on energy project management. This Certificate program requires 18 credit hours and can potentially be completed in one year.

Program Requirements:

Core Courses (12 Credit Hours)

- CM 3180: Mechanical and Electrical Building Systems
- CM 3280: Building Mechanical and Electrical Codes and Loads
- CM 3480: Mechanical and Electrical Systems Estimating
- CM 4190: Sustainable Operation & Maintenance

Electives (6 Credit Hours)

Choose 2 from the following courses:

- CM 3000: Computer Applications in Construction
- CM 3040: Building Information Modeling I
- CM 3190: Sustainable Construction
- CM 3400: Risk and Quality Management
- CM 3800: Construction Finance
- CM 4480: Design/Build MEP Systems
- CM 4710: Construction Safety

Program Total: (18 Credit Hours)

College of Computing and Software Engineering

Applied Computer Science, BA

College of Computing and Software Engineering
Department of Computer Science
<http://cs.kennesaw.edu/>

The Bachelor of Arts in Applied Computer Science program (BA-ACS) provides a blend of the foundations of computer science (CS) and applications with interdisciplinary study. The BA-ACS program emphasizes the study of programming, theory, and computer systems. Core computer science areas include programming, computer architecture, operating systems, web development, social media and computing security. These areas are supported by a strong foundation in computing principles such as the design of programming languages, data structures, and operating system principles. The program includes the mathematics needed to understand computer science and to interact with the science disciplines.

As a BA program, a formal minor and foreign languages are required, which broaden the opportunities and career possibilities for graduates. Students may select from a set of pre-

approved minors and concentrations having connections with computer science or may propose an alternative minor or concentration.

Graduates of the BA-ACS program are prepared for a variety of traditional careers in CS, and also including emerging interdisciplinary areas such as social media and High Performance Cluster Computing (HPCC), and integrations through the minor with computing security, GIS, data science, chemistry, biology and others.

General Education (44 Credit Hours)

See listing of requirements.

Specific General Education requirements for this major:

- MATH 1113: Precalculus
- MATH 1190: Calculus I
- Any lab-based science sequence

Note: The science sequence chosen may limit the choice of minor.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ACST 2301: Problem-Solving and Digital Game Design
- ACST 2312: Programming with .NET Framework
- IS 2200: Information Systems and Communication
- FL 2001: Intermediate Foreign Language and Culture I
- FL 2002: Intermediate Foreign Language and Culture II
- One hour from STAT 1107

Additional Requirements

Additional mathematics needed in statistics for understanding the probabilistic algorithms used for managing computing resources. One hour is used in Area F.

- STAT 1107: Introduction to Statistics

Upper Division Major Requirements (27 Credit Hours)

- ACST 3710: Digital Game Design and Team Project
- CS 3410: Introduction to Database Systems
or
- CSE 3153: Database Systems
- LDRS 3000: Foundations of Leadership
- CSE 3203: Overview of Mobile Systems
- ACST 3330: Data Structures and Database Applications
- ACST 3340: Modern Languages: Theory, Scripting, R, HPC, Fortran
- ACST 3510: Computer Architecture from Foundations to Cloud
- ACST 3530: Linux Operating Systems and Networking

- ACST 4620: Computing Security

Interdisciplinary Concentration (25-29 Credit Hours)

Select one concentration:

Interdisciplinary Computing and Natural Sciences (25-28 Credit Hours)

Please select one of the following minors and complete the required courses listed below:

Chemistry Minor (16 Credit Hours)

Environmental Science Minor (15 Credit Hours)

Biology Minor (18 Credit Hours)

Physics Minor (15 Credit Hours)

- ACST 4851: Applied Computer Science Research Thesis
- MATH 2332: Probability and Data Analysis
- Three (3) credit hours of approved upper-level science or computing elective

Interdisciplinary Computing and Mathematical Sciences (29 Credit Hours)

Please select one of the following minors and complete the required courses listed below:

Mathematics Minor (15 Credit Hours)

Applied Statistics and Data Analysis Minor (15 Credit Hours)

- MATH 2202: Calculus II
- MATH 2332: Probability and Data Analysis
- MATH 3000: Software of Mathematics
- ACST 4851: Applied Computer Science Research Thesis

Interdisciplinary Applied Computing (25-26 Credit Hours)

Please select one of the following minors/certificates and complete the required courses listed below:

High Performance Computing Certificate (18 Credit Hours)*

- *ACS Majors must take due to overlap with the Major: CSE 2300, CSE 4983, and IS 3260

Software Engineering Minor (16 Credit Hours)

Computer Game Design & Development Minor (18 Credit Hours)

- ACST 3540: Social Media & Global Computing
- ACST 4850: Interdisciplinary Project and Portfolio Preparation

Interdisciplinary Computing in the Arts and Humanities (25-28 Credit Hours)

Please select one of the following minors/certificates and complete the required courses listed below:

Music Minor (18 Credit Hours)

Art History Minor (18 Credit Hours)

Digital Writing and Media Arts Minor (15 Credit Hours)

Environmental Studies Minor (15 Credit Hours)

Geographic Information Sciences Certificate - Stand-Alone and Embedded (15 Credit Hours)

Leadership Studies Certificate – Embedded (15 Credit Hours) + 1 Leadership Elective

- ACST 3540: Social Media & Global Computing
- IS 3260: Web Development I
- ACST 4850: Interdisciplinary Project and Portfolio Preparation

Interdisciplinary Computing and Business (28 Credit Hours)

Please select one of the following minors and complete the required courses listed below:

Information Security and Assurance Minor (18 Credit Hours)

Information Systems Minor (18 Credit Hours)

- ACST 3540: Social Media & Global Computing
- ACST 4850: Interdisciplinary Project and Portfolio Preparation
- IS 3260: Web Development I

Free Electives (0-4 Credit Hours)

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Computer Game Design & Development Minor

To be eligible for a minor in Computer Game Design and Development, the student must complete the following courses with a grade of "C" or better. Any upper level (3000+) courses that are required in the major may not be used as credit for the minor. Other upper level CGDD courses may be used as substituted. Students must have at least 9 upper level CGDD hours not required for their major (CGDD courses taken as electives for your major bachelor's degree can be used to complete the minor).

Required Courses

- CSE 130I: Programming and Problem Solving I
or
- CS 130I: Programming Principles I
- CGDD 2002: Fundamentals of Game Design

- CGDD 4003: Digital Media and Interaction
- Two additional upper-level CGDD courses (6+ Credit Hours)

Program Total (16+ Credit Hours)

Computer Game Design and Development B.S.

The Bachelor of Science in Computer Game Design and Development equips students and graduates with the skills and knowledge to apply computing and software engineering techniques to the design and production of digital media for entertainment, research, and education. As a specialization within the field of computing, game design and development builds on and applies expertise in computing hardware and software to create engaging and immersive multimedia systems.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for This Major:

- MATH 1113: Precalculus Area A-2
- COM 1100: Human Communication Area B-2
- MATH 1190: Calculus I Area D-1 (1 Credit Hour counted in Area F)
- Area D-2 Group 1 requires 4 Credit Hours chosen from (PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L) or (CHEM 1211 and CHEM 1211L) or (BIOL 1107 and BIOL 1107L)
- Area D-2 Group 2 requires 4 Credit Hours chosen from (PHYS 1112 and PHYS 1112L) or (PHYS 2212 and PHYS 2212L) or (CHEM 1212 and CHEM 1212L) or (BIOL 1108 and BIOL 1108L)
- One Hour from Area D will be counted in Free Electives

Lower Division Major Requirements (Area F) (18 Credit Hours)

- CSE 1301: Programming and Problem Solving I
- CSE 1302: Programming and Problem Solving II
- CSE 2300: Discrete Structures for Computing
or
- MATH 2345: Discrete Mathematics
- MATH 2332: Probability and Data Analysis
- CGDD 2002: Fundamentals of Game Design
- One Hour from Area D

Upper Division Major Requirements (44 Credit Hours)

- CSE 3801: Professional Practices and Ethics

- CS 3304: Data Structures
- CS 4242: Artificial Intelligence
- CS 4306: Algorithm Analysis
- CS 4722: Computer Graphics and Multimedia
- SWE 3313: Introduction to Software Engineering
- SWE 3643: Software Testing & Quality Assurance
- SWE 4324: User-Centered Design
- CGDD 3103: Application Extension and Scripting
- CGDD 4003: Digital Media and Interaction
- CGDD 4203: Mobile & Casual Game Development
- CGDD 4303: Educational and Serious Game Design
- CGDD 4803: Studio
- CGDD 4814: Studio 2

Upper Level Concentration (9 Credit Hours)

Pick one from the following concentrations:

Media-Production Concentration

- MATH 3260: Linear Algebra I
- CGDD 4113: 3D Modeling and Animation
- CGDD 4603: Production Pipeline and Asset Management

Distributed-Mobile Concentration

- SWE 3683: Embedded Systems Analysis and Design
- CS 4504: Distributed Computing
- CS 4622: Computer Networks

Educational-Serious Concentration

- Two approved Communication courses (6 credit hours)
- CGDD 4313: Designing Online Learning Content and Environments

Planning-Management Concentration

Pick three:

- MGT 3100: Management and Behavioral Sciences
- MGT 4122: Venture Analysis
- MGT 4185: Technology Management
- SWE 3623: Software Systems Requirements
- SWE 4663: Software Project Management

Simulations-Informatics

- CSE 3153: Database Systems
- CGDD 4703: Data Modeling and Simulation

Creative Content Generation Concentration

- CGDD 4113: 3D Modeling and Animation
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4470: Advanced Audio Production and Technology

Computer Science Concentration

Students can choose any three upper division CS courses, which must be at least 9 credit hours of non-duplicative hours with the course requirements of the student's major.

Free Electives (7 Credit Hours)

Any course in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from WELL 1000 course requirement.

Graduation Credit Hour Total (120 Credit Hours)

Computer Science B.S.

*Bachelor of Science Degree
College of Science and Mathematics,
Department of Computer Science
(770) 423-6005
<http://cs.kennesaw.edu/>*

The B.S. in computer science program is fully accredited by ABET, the Accreditation Board for Engineers & Technology.

The Bachelor of Science in Computer Science program (BSCS) provides a blend of the foundations of computer science (CS) and applications in the information technology (IT) industry. The BSCS program emphasizes the study of computer systems architecture, software development, and data communications. Core technology areas include programming, computer architecture, operating systems, data communication, database systems, and software engineering. These areas are supported by a strong foundation in computing principles such as the design of programming languages, data structures, and operating system principles. The program includes a mathematics component and mathematics concepts are incorporated into many of the major courses.

Graduates of the CS program are prepared for a variety of careers in CS and IT, especially in the development of software for distributed systems. Example job titles from KSU graduates of the CS program include information technology specialist, programmer analyst, software engineer, network administrator, and software consultant. This program also prepares students

for graduate studies in computing-related fields.

General Education (42 Credit Hours)

General Education Requirements

Students majoring in the BSCS program must take a science course sequence (total 8 credit-hours) in Area D:

- PHYS221 and PHYS2211L; PHYS2212 and PHYS2212L
or
- BIOL1107 and 1107L; BIOL1108 and BIOL1108L
or
- CHEM1211 and CHEM1211L; CHEM1212 and CHEM1212L

Lower Division Major Requirements (Area F) (18 Credit Hours)

- CS 1301: Programming Principles I
- CS 1302: Programming Principles II
- MATH 2202: Calculus II
- Science Lab or MATH Credit (2 credit hours)
- Science Major Course Elective (4 credit hours)

Upper Division Major Requirements (31 Credit Hours)

- CS 3304: Data Structures
- CS 3501: Computer Organization and Architecture
- CS 3502: Operating Systems
- CS 4305: Software Engineering
- CS 3410: Introduction to Database Systems
- CS 4306: Algorithm Analysis

- CS 4504: Distributed Computing
or
- CS 4720: Internet Programming

- CS 4308: Concepts of Programming Languages
- CSE 3801: Professional Practices and Ethics
- CS 4850: Computer Science Senior Project

Additional Requirements (12 Credit Hours)

Nine (9) hours of required courses plus one three (3) credit hour upper division math elective.

- TCOM 2010: Technical Writing

- MATH 2345: Discrete Mathematics
- MATH 3332: Probability and Inference

Upper Division Math Elective:

Choose one (3 credit hours):

- MATH 3260: Linear Algebra I
- MATH 3261: Numerical Methods I
- MATH 3272: Introduction to Linear Programming
- Potentially other mathematics course at 3000 or 4000 level.

Major Electives (12 Credit Hours)

Four 3-hour classes chosen from:

- CS 4322: Mobile Software Development
- CS 4512: Systems Programming
- CS 4514: Real-Time Systems
- CS 4632: Modeling and Simulation
- CS 4712: User Interface Engineering
- CGDD 4203: Mobile & Casual Game Development
- CS 4612: Secure Software Development
- CS 4522: HPC & Parallel Programming
- CS 4622: Computer Networks
- CS 4722: Computer Graphics and Multimedia
- CS 4732: Digital Image Processing
- CS 4412: Data Mining
- SWE 3633: Software Architecture and Design
- SWE 3683: Embedded Systems Analysis and Design
- SWE 3843: Embedded Systems Construction and Testing
- SWE 4633: Component-Based Software Development
- CS 4242: Artificial Intelligence
- SWE 3643: Software Testing & Quality Assurance
- CS 4524: Cloud Computing
- CS 4491: Advanced Topics in Computer Science
- CS 4400: Directed Studies

Free Electives (5 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement

Graduation Credit Hour Total (120 Credit Hours)

Computer Science Minor

For students interested in developing their knowledge and credentials in the computing area. The minor is approachable for students from a variety of majors with a technical interest, with MATH 1112 or MATH 1113 as the math prerequisite to CS 1301. The student must earn a 'C' or better in all courses for the minor. At least 12 hours of a minor must be non-duplicative with the course requirements of the student's major, with 9 hours of upper-division.

Required Courses (8 Credit Hours)

One of these sequences:

- CS 1301: Programming Principles I
- CS 1302: Programming Principles II
- or
- CSE 1301: Programming and Problem Solving I
- CSE 1302: Programming and Problem Solving II

Upper Division Electives (9 Credit Hours)

- Please select any three (3) upper division CS courses

Program Total (17 Credit Hours)

Health Information Technology (HIT) Certificate

*College of Computing and Software Engineering
Information Technology Department
<http://ccse.kennesaw.edu/it>
itdepartmentinfo@kennesaw.edu*

The Undergraduate Certificate in Health Information Technology (HIT) Program is designed for students with background in Information Technology (or the equivalent fields through experience or other course work) to gain knowledge in the field of Health IT.

Requirements (15 Credit Hours)

Candidates must complete the five core courses in Health Information Technology (HIT) listed below for a total of 15 credit hours.

- IT 3223: Software Acquisition and Project Management
- IT 3503: Foundations of Health Information Technology
- IT 4513: Electronic Health Record Systems & Applications
- IT 4523: Clinical Processes and Workflows: Analysis and Redesign
- IT 4533: Health information Security and Privacy

Program Total (15 Credit Hours)

High Performance Computing Certificate

This is a certificate that serves computing and applied computer science majors interested in developing expertise in this area of high-demand and high interest and innovation, with coursework in High Performance Computing Clusters (HPCC) Systems platform, high performance computing and computing languages including ECL, Thor, ROXIE and R. The certificate also serves the students in the BA Applied Computer Science with a certificate that can be used to meet the BA ACS program's requirement of a minor or certificate.

The program is available online, in order to serve non-degree-seeking students including working professionals and those seeking education post graduation expertise.

High Performance Computing Certificate Core Requirements (15 Credit Hours)

- CS 3410: Introduction to Database Systems
- ACST 4320: Data Warehousing and Mining
- ACST 3340: Modern Languages: Theory, Scripting, R, HPC, Fortran
- ACST 3510: Computer Architecture from Foundations to Cloud
- ACST 4570: Cloud Computing and HPCC Systems Platform

HPC Certificate Electives (3 Credit Hours)

Choice of one course from the following:

- ACST 3330: Data Structures and Database Applications
- ACST 3530: Linux Operating Systems and Networking

Program Total (18 Credit Hours)

Information Technology B.S.

*Bachelor of Science in Information Technology Degree
College of Computing and Software Engineering
Information Technology Department
(770) 915-4292*

The Bachelor of Science in Information Technology degree, which is accredited by the Computing Accreditation Commission of ABET: www.abet.org, has the primary objective of meeting the high demand for professional degrees in the strategy, development and administration of integrated computing, management, and information technology systems. The degree has core requirements, major requirements and required electives. The major contains those courses considered fundamental to the information technology field and the electives give the student some flexibility in choice.

General Education (43-44 Credit Hours)

See listing of requirements.

- The area A math requirement is (MATH 1111 and MATH 1112) or MATH 1113, and the area D math requirement is MATH 1190 (Calculus I) or MATH 1160 Elementary Applied Calculus). The BSIT area B requires COM 1100 Human Communication. The BSIT Area E-4 recommends STS 1101.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- IT 1113: Programming Principles
- MATH 2332: Probability and Data Analysis
or
- STAT 1107: Introduction to Statistics
- CS 1301: Programming Principles I
- IT 1324: Advanced Programming Principles
- CSE 2300: Discrete Structures for Computing
or
- MATH 2345: Discrete Mathematics
- One Hour from Area D or Free Electives

Major Requirements (41 Credit Hours)

- TCOM 2010: Technical Writing
- CSE 3153: Database Systems
- CSE 3801: Professional Practices and Ethics
- IT 3123: Hardware and Software Concepts
- IT 3203: Introduction to Web Development
- IT 3223: Software Acquisition and Project Management
- IT 3423: Operating Systems Concepts & Administration
- IT 4123: Electronic Commerce
- IT 4323: Data Communications & Networking
- IT 4423: Linux/Unix Administration
- IT 4683: Management of Information Technology and Human Computer Interaction
- IT 4723: IT Policy & Law
- IT 4823: Information Security Administration & Privacy
- IT 4983: IT Capstone

Upper Level Concentrations (Tracks) (12 Credit Hours)

All BSIT students are required to take a minimum of 12 credit hours as an upper-level concentration. They choose one of the four concentrations (tracks) and complete 3 of the courses listed. The 4th elective course can be from the same or a different concentration (track). The four options are:

Enterprise Systems Track

- IT 4153: Advanced Database
- IT 4203: Advanced Web Development
- IT 4333: Network Configuration & Administration
- IT 4673: Virtual IT Systems
- IT 4713: Business Intelligence Systems
- IT 4490: Special Topics in Information Technology

Note: Special Topics course should be in Enterprise Systems Technology

- IT 4400: Directed Studies

Information Assurance and Security Track

- IT 4833: Wireless Security
- IT 4843: Ethical Hacking for Effective Defense
- IT 4853: Computer Forensics
- IT 4883: Infrastructure Defense
- IT 4490: Special Topics in Information Technology

Note: Special Topics course should be in Information Security

- IT 4400: Directed Studies
- IT 4893: Internet of Things: Applications and Security

Health Information Technology

- IT 3503: Foundations of Health Information Technology
- IT 4513: Electronic Health Record Systems & Applications
- IT 4523: Clinical Processes and Workflows: Analysis and Redesign
- IT 4533: Health information Security and Privacy
- IT 4490: Special Topics in Information Technology

Note: Special Topics course should be in Health Information Technology

- IT 4400: Directed Studies

Mobile and Web Track

- CSE 3203: Overview of Mobile Systems
- IT 4203: Advanced Web Development
- IT 4213: Mobile Web Development
- IT 4490: Special Topics in Information Technology

Note: Special Topics course should be in Mobile Web Technology

- IT 4400: Directed Studies

Free Electives (7 Credit Hours)

Any course in the university curriculum.

Program Total (121 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Notes: Program is exempt from WELL 1000 course requirement.

All IT, CS, CSE, SWE and CGDD designator courses must have a grade of 'C' or better.

Graduation Credit Hour Total (121 Credit Hours)

Information Technology Minor

College of Computing and Software Engineering

Information Technology Department

<http://ccse.kennesaw.edu/it/>

itdepartmentinfo@kennesaw.edu

The information technology minor provides students with basic IT skills including programming, web page development, and system administration.

To be eligible for a minor in Information Technology, the student must complete the following courses with a grade of "C" or better:

Required Courses (7-8 Credit Hours)

Students must complete one course from each of the required areas with a grade of "C" or better.

Complete one of the following programming courses:

- IT 1113: Programming Principles
- CS 1301: Programming Principles I
- CSE 1311: C++ Programming for Engineers
- CSE 1301: Programming and Problem Solving I

Complete one of the following required courses:

- IT 3223: Software Acquisition and Project Management
- IT 1324: Advanced Programming Principles
- CS 1302: Programming Principles II
- CSE 1302: Programming and Problem Solving II
- CSE 1312: Object Oriented C++ Programming for Engineers

Electives (9 Credit Hours)

Student must complete three of the following courses with a grade of "C" or better:

- IT 4123: Electronic Commerce

- IT 4323: Data Communications & Networking
- IT 4833: Wireless Security
- IT 3123: Hardware and Software Concepts
- IT 3203: Introduction to Web Development
- CSE 3153: Database Systems
- IT 3423: Operating Systems Concepts & Administration
- IT 3503: Foundations of Health Information Technology
- IT 3883: Advanced Application Development
- IT 4153: Advanced Database
- IT 4203: Advanced Web Development
- IT 4333: Network Configuration & Administration
- IT 4423: Linux/Unix Administration
- IT 4513: Electronic Health Record Systems & Applications
- IT 4523: Clinical Processes and Workflows: Analysis and Redesign
- IT 4213: Mobile Web Development
- IT 4490: Special Topics in Information Technology
- IT 4533: Health information Security and Privacy

Program Total (16-17 Credit Hours)

Information Technology, B.A.S.

Bachelor of Applied Science in Information Technology Degree
College of Computing and Software Engineering
 (678) 915-4292

The Bachelor of Applied Science in Information Technology is designed for students who have an Associate of Applied Science in computing from a member institution of the Technical College System of Georgia. The courses that you have completed for your AAS will transfer as a block, and you will be required to take an additional 60 credit hours (or approximately 2 years of full-time study) to obtain the BAS degree.

General Education (43 Credit Hours)

See listing of requirements.

- The Area A math requirement is (MATH 1111 and MATH 1112) or MATH 1113 Pre-Calculus, and the Area D math requirement is MATH 1107 Elementary Statistics. Students should not take SCI 1102 to fulfill the Area D requirement. The BASIT Area B requires COM 1100 Human Communication.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- CSE 130I: Programming and Problem Solving I
or
- CS 130I: Programming Principles I

- IT 1324: Advanced Programming Principles
- CSE 2300: Discrete Structures for Computing
or
- MATH 2345: Discrete Mathematics
- Technical Block Course from AAS (3 credit hours)
- Technical Block Course from AAS (4 credit hours)

Upper Division Major Requirements (32 Credit Hours)

- CSE 3153: Database Systems
- CSE 3801: Professional Practices and Ethics
- IT 3123: Hardware and Software Concepts
- IT 3203: Introduction to Web Development
- IT 3223: Software Acquisition and Project Management
- IT 3423: Operating Systems Concepts & Administration
- IT 3883: Advanced Application Development
- IT 4323: Data Communications & Networking
- IT 4823: Information Security Administration & Privacy
- IT 4983: IT Capstone
- IT 4683: Management of Information Technology and Human Computer Interaction

Technical Block (21 Credit Hours)

- The Technical Block requires: 21 hours of CIS/CIST courses from the student's A.A.S. degree.

Directed Electives (7 Credit Hours)

- SWE 4324 or any 3000 or 4000 level IT course not used in the Upper Division Major Requirements.

Program Total (121 Credit Hours)

University-Wide Degree Requirements

See listing of requirements

Notes:

This program is exempt from the WELL 1000 requirement.

All IT, CS, CSE AND SWE designator courses must have a grade of "C" or better.

Graduation Total Credit Hours (121 Credit Hours)

Software Engineering Minor

Required Courses

- CSE 1302: Programming and Problem Solving II
- SWE 3313: Introduction to Software Engineering
- Three additional upper-level SWE courses (9 Credit Hours)

Note: CSE1302 has a prerequisite of CSE1301.

Program Total (16 Credit Hours)

Software Engineering, B.S.

Software Engineering represents the fastest growing segment of software professionals - men and women who solve problems and issues in the development of mission-critical software to meet the needs of business and industry. The undergraduate program in Software Engineering, which is the only one offered at a public university in the state of Georgia, has the primary objective of preparing a new generation of software developers focused on the engineering of software systems; that is, those systems that meet specified requirements, that are built with mission critical quality levels, and that are within cost and schedule requirements.

General Education (45 Credit Hours)

See listing of requirements.

General Education Requirements Specific to This Major:

- Area A2: MATH 1190
- Area B2: COM 1100
- Area D1: MATH 2202

Area D2, Group 1:

- ◇ PHYS 2211 and PHYS 2211L OR
- ◇ BIOL 1107 and BIOL 1107L OR
- ◇ CHEM 1211 and CHEM 1211L

Area D2, Group 2:

- ◇ PHYS 2212 and PHYS 2212L OR
- ◇ BIOL 1108 and BIOL 1108L OR
- ◇ CHEM 1212 and CHEM 1212L

Lower Division Major Requirements (Area F) (18 Credit Hours)

Students should begin CS/CSE 1301 within their first or second semester in the major.

- CS 1301: Programming Principles I

- or
- CSE 1301: Programming and Problem Solving I
- CS 1302: Programming Principles II
- or
- CSE 1302: Programming and Problem Solving II
- CSE 2300: Discrete Structures for Computing
- or
- MATH 2345: Discrete Mathematics
- TCOM 2010: Technical Writing
- MATH 2332: Probability and Data Analysis
- One extra credit hour from Area D.

Upper Division Major Requirements (52 Credit Hours)

- CSE 3153: Database Systems
- CSE 3801: Professional Practices and Ethics
- CS 3304: Data Structures
- CS 3501: Computer Organization and Architecture
- CS 3502: Operating Systems
- SWE 3313: Introduction to Software Engineering
- SWE 3623: Software Systems Requirements
- SWE 3633: Software Architecture and Design
- SWE 3643: Software Testing & Quality Assurance
- SWE 4324: User-Centered Design
- SWE 4663: Software Project Management
- SWE 4713: SWE Application Domain
- SWE 4724: Software Engineering Project

Science Elective (4 Credit Hours)

Select one of the following paired lecture and lab courses for a total of 4 credit hours:

- PHYS 221 I: Principles of Physics I *Must be taken if not already taken in Area D
- PHYS 221 IL: Principles of Physics Laboratory I *Must be taken if not already taken in Area D
- or
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- or
- CHEM 121 I: General Chemistry I
- CHEM 121 IL: General Chemistry I Laboratory
- or
- CHEM 1212: General Chemistry II

- CHEM 1212L: General Chemistry II Laboratory
or
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
or
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

Math/ Science Elective (6 Credit Hours)

Mathematics courses must be at the level of Calculus I or above. See advisor for complete list of approved Science electives. This requirement is in addition to other math and science courses required elsewhere in the curriculum.

Upper Level Electives (6 Credit Hours)

The SWE Upper Level Electives require six credits from the courses below, at least one of which is an SWE course:

- CSE 4983: CSE Computing Internship
- SWE 3683: Embedded Systems Analysis and Design
- SWE 3843: Embedded Systems Construction and Testing
- SWE 4633: Component-Based Software Development
- SWE 4743: Object-Oriented Development
- SWE 4783: User Interaction Engineering
- CGDD 4003: Digital Media and Interaction
- CGDD 4203: Mobile & Casual Game Development
- CS 4504: Distributed Computing
- CS 4512: Systems Programming
- CS 4514: Real-Time Systems
- CS 4523: Programming Massively Parallel Processors
- CS 4622: Computer Networks
- CS 4722: Computer Graphics and Multimedia
- CS 4732: Digital Image Processing
- IT 4123: Electronic Commerce
- IT 4823: Information Security Administration & Privacy
- IT 4843: Ethical Hacking for Effective Defense
- IT 4833: Wireless Security

Free Electives (5 Credit Hours)

Excludes: MATH 1111, PHYS 1111K, and PHYS 1112K.

Program Total (125 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Michael J. Coles College of Business

Academic Policies Specific to the Coles College of Business

A summary of some of the most significant admission, progression, and graduation policies for business majors is provided below. For additional information, visit the Business Undergraduate Advising Center on the fourth floor of the Burruss Building and check other sections of this KSU Undergraduate Catalog.

Requirements for B.B.A. Degree

All business majors should take the following courses as part of their KSU General Education requirements:

- MATH 1111: College Algebra (or MATH 1112: College Trigonometry or MATH 1111: Precalculus)
- MATH 1160: Elementary Applied Calculus (or MATH 1190: Analytic Geometry and Calculus I)
- ECON 2100: Principles of Microeconomics
- All business majors must take a calculus course, which is part of the Coles College Sophomore GPA Requirement (see later section) and also a prerequisite to several business courses. Most students will take the MATH 1111 and MATH 1160 sequence. Students with stronger math aptitudes or backgrounds, or students considering graduate school, should take MATH 1113 and MATH 1190. Students who can start with Calculus should meet with a Coles Professional Advisor to discuss which MATH courses to take. All students must take ECON 2300 (Business Statistics) and not MATH 1107.
- International Business Majors have a 12-hour foreign language requirement involving the 2001, 2002, 3302, and 3303 courses in an approved language (Chinese, French, German, Italian, Korean, Portuguese, or Spanish). If you need to start your language at the introductory level, you should take the foreign language 1002 course as part of your General Education requirements (Area B2).

Leadership and Career Program

The Leadership and Career Program is a sequence of three courses you must complete as part of your B.B.A. degree. This program is designed to help you succeed in your Major and to effectively compete in the job market. The three required courses are:

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

You should take BUSA 2150 as soon as you have completed its prerequisite of ENGL 1102. Successful completion of this course is a requirement for admission to the Coles Undergraduate Professional Program (see later section). The second and third courses cannot be taken until after you are admitted to Coles. BUSA 3150 is a prerequisite for BUSA 4150.

Sophomore GPA Requirement

Before a business major can be admitted to the Coles College Undergraduate Professional

Program and enroll in any upper-division business courses (3000-4000 level), she or he must meet the Coles Sophomore GPA Requirement. This involves earning an Adjusted GPA of 3.00 or greater for the following eight courses:

- MATH 1160: Elementary Calculus with Applications (or MATH 1190-Analytic Geometry and Calculus I)
 - ACCT 2100: Introduction to Financial Accounting
 - ACCT 2200: Introduction to Managerial Accounting
 - ECON 2100: Principles of Microeconomics
 - ECON 2200: Principles of Macroeconomics
 - ECON 2300: Business Statistics
 - IS 2200: Information Systems & Communications
 - BLAW 2200: Legal and Ethical Environment of Business
- ◇ Regardless of whether the courses are taken at Kennesaw State University or at another acceptable accredited institution, the grades earned will be used to check this GPA requirement. If any of these courses are transferred in and are not awarded three credit hours by KSU, that difference in hours will affect the GPA calculation. A course may be repeated if necessary. However, KSU has limits on the number of course withdrawals a student may have and on the number of times a student may repeat the same course.

Admission to the Coles College Undergraduate Professional Program

Admission to the Coles College Undergraduate Professional Program is separate from admission to Kennesaw State University. Students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement prior to application for admission to Coles. Details about other admission requirements may be obtained from the Business Undergraduate Advising Center (BB 431).

Business majors must apply for and be accepted for admission into the Coles Undergraduate Professional Program in order to take upper-division business courses and to graduate with a B.B.A. degree. The application should be completed and submitted online through your OwlExpress account.

The B.B.A. degree will not be awarded to anyone who has not met the Sophomore GPA Requirement and been admitted to the Coles Undergraduate Professional Program, or to anyone who has not completed our required Leadership and Career Program.

Other KSU Requirements

In order to receive a degree from Kennesaw State University, a student must meet KSU's residency, grade, and graduation requirements. Some of those requirements are summarized here for convenience. Students should check other sections of this KSU Undergraduate Catalog for a complete listing of KSU requirements.

- Business majors must earn a minimum of 45 hours of credit in upper-division business courses.
- Business majors must complete at least 33 hours of business courses in residence at KSU.
- All business majors except for Accounting must complete at least 12 hours of their

Major Field Requirements and Major Field Electives at KSU. Accounting Majors must complete at least 18 hours of their Major Field Requirements and Major Field Electives at KSU.

- All students must complete at least 20 of the last 30 semester hours immediately preceding graduation at KSU.

Certain B.B.A. courses must be taken at Coles, and there are restrictions on the business courses that may be taken via education abroad options. Students should check with a Coles College Professional Advisor about these restrictions prior to signing up for a study abroad course or semester abroad. Credit for courses taken at other colleges and universities (whether in the U.S. or abroad) will not be given if:

1. the institution does not have acceptable accreditation,
2. the courses were not taken at the same or higher level than comparable courses offered at Kennesaw State University,
3. the courses do not have substantially the same content and rigor, or
4. the courses are too old.

All business majors must earn a grade of "C" or higher in all business courses counted toward their degree. All business majors must earn a grade of "C" or higher in any non-business courses counted in the Major Field section of their degree. Accounting Majors must earn a grade of "B" or higher in ACCT 2100 and ACCT 2200. International Business Majors must earn a grade of "C" or higher in all courses used to satisfy their Foreign Language Requirement and their Education Abroad Requirement.

Students must always meet current course prerequisites, regardless of when they first started at KSU. Always check the most recent KSU Undergraduate Catalog for current course prerequisites. Students will also be expected to meet the current admission requirements for the Coles Undergraduate Professional Program at the time of admission, regardless of when they first started at KSU.

Timeliness of Degree Completion

KSU requires all graduating students to meet the program requirements in a Catalog that is not more than ten years old at the time of graduation. Students who do not complete their degree within ten years of starting at KSU must move up to a more recent Catalog. If a student does not attend continuously and is required by KSU to apply for readmission in order to return, the student will have to move up to the Catalog in effect for the readmission term. In addition, KSU requires students who change majors to move up to the Catalog in effect in the term of change.

Coles requires business majors to successfully complete the B.B.A. degree requirements and graduate within no more than six (6) calendar years after first being admitted to the Coles Undergraduate Professional Program. If a student does not complete the degree within six calendar years, courses may have to be repeated and new B.B.A. program requirements may have to be met prior to graduation.

Accounting B.B.A.

*Bachelor of Business Administration Degree
Coles College of Business*

School of Accountancy
(470) 578-6084
<http://coles.kennesaw.edu/>

The School of Accountancy aspires to be a nationally recognized leader in influencing the accounting profession by educating our students, performing relevant research, and engaging with the profession.

Accounting provides the tools to measure, interpret and communicate economic information for decision-making. A basic understanding of financial and managerial accounting information is necessary for all business majors. Accounting Majors develop their knowledge of accounting within the framework of accounting information systems. The development of a student's technical, communication, computer, critical-thinking, problem-solving, teamwork, and leadership skills are critical consequences of the program.

Upon graduation, Accounting Majors have a wide range of job opportunities. Many go into public practice (CPA firms), which involves independent auditing, accounting, consulting and tax services provided to clients. This is the traditional path for becoming a Certified Public Accountant (CPA). Others choose private accounting, becoming financial, tax, systems or managerial accountants or internal auditors in business and industry. Still others enter the specialized fields of not-for-profit or governmental accounting. Accounting also serves as a solid background for graduate work in any business area or law. Many find rewarding lifetime careers in Accounting; others use it as a stepping-stone to high-level management positions. The State of Georgia requires everyone who wishes to be licensed as a CPA to have five years of education (150 semester hours), including a baccalaureate degree. Completion of 123 hours is required to earn the Bachelor's degree; hence 27 additional hours are needed to become a CPA. While these can be undergraduate hours, the faculty recommends that prospective CPAs earn a specialized Master's degree in Accounting to satisfy the five-year requirement.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Accounting and

graduate with an Accounting B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

Accounting Majors must earn grades of "B" or higher in ACCT 2100 and ACCT 2200 in order to proceed to upper-division ACCT courses.

Accounting Majors must complete at least 18 hours of the ACCT Major Field Requirements and Major Field Electives at KSU.

View academic policies specific to the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
MATH 1113: Precalculus

In Area D:

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (48 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (18 Credit Hours)*

- ACCT 3100: Intermediate Financial Accounting I
- ACCT 3200: Concepts in Federal Taxation
- ACCT 3300: Accounting Information Systems
- ACCT 4050: Intermediate Financial Accounting II
- ACCT 4150: Auditing and Assurance
- ACCT 4550: Accounting Data Analytics

Major Field Electives (9 Credit Hours)*

Select 9 credit hours from the following:

- ACCT 4100: Advanced Financial Accounting
- ACCT 4152: Internal Auditing
- ACCT 4200: Advanced Managerial Accounting
- ACCT 4250: Advanced Taxation
- ACCT 4300: International Accounting
- ACCT 4350: Accounting Systems Audit and Control
- ACCT 4600: Governmental and Not-for Profit Accounting
- ACCT 4700: Valuation of Closely Held Businesses
- ACCT 4800: Fraud and Forensic Accounting
- ACCT 4400: Directed Study
- ACCT 4490: Special Topics in Accounting

Business Electives (6 Credit Hours)

- Six hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. ACCT courses cannot be used here. (A maximum of six hours of credit in Accounting Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of Requirements.

**Note:*

Accounting Majors are required to complete at least 18 hours of their Major Field Requirements and Major Field Electives at KSU.

Guidance for Selecting Electives

Students should select their three (3) Major Field Elective courses, as well as their Business Electives and Non-Business Electives courses, after careful consideration of career and/or graduate school aspirations. Discussions with faculty are advisable. Students are encouraged to review the required knowledge and skills for accounting certifications and licensure when selecting their Major Field Electives. Popular accounting certifications include CPA (Certified Public Accountant – see <https://www.nasba.org>), CMA (Certified Management Accountant – see <http://www.imanet.org>), and CIA (Certified Internal Auditor - see <http://www.theiia.org>).

Graduation Credit Hour Total (123 Credit Hours)

Accounting Minor

Coles College of Business

School of Accountancy

(470) 578-6084

<http://coles.kennesaw.edu/>

The School of Accountancy aspires to be a nationally recognized leader in influencing the accounting profession by educating our students, performing relevant research, and engaging with the profession.

Accounting provides the tools to measure, interpret, and communicate economic information for decision-making. A basic understanding of financial and managerial accounting information is necessary for all business majors. The Accounting Minor expands their knowledge of accounting. A student's technical, communication, computer, critical-thinking, problem-solving, teamwork, and leadership skills are strengthened through accounting coursework. Students completing an Accounting Minor must earn grades of "B" or higher in ACCT 2100 and ACCT 2200 (ACCT 2100 is a prerequisite for ACCT 2200), and grades of "C" or higher in all other accounting courses.

Required Courses (9 credit hours)

- ACCT 2200: Introduction to Managerial Accounting
- ACCT 3100: Intermediate Financial Accounting I
- ACCT 3200: Concepts in Federal Taxation

Select two of the following (6 credit hours)

- ACCT 4050: Intermediate Financial Accounting II
- ACCT 4100: Advanced Financial Accounting
- ACCT 4150: Auditing and Assurance *
- ACCT 4200: Advanced Managerial Accounting

- ACCT 4250: Advanced Taxation
- ACCT 4300: International Accounting
- ACCT 4600: Governmental and Not-for Profit Accounting

Program Total (15 credit hours)

*Note:

*An extra prerequisite course (which does not count toward the Minor) is required to take this course.

Business Fundamentals Certificate - Embedded

*Coles College of Business
Office for Undergraduate Programs
(470) 578-6055
<http://coles.kennesaw.edu/>*

The Certificate in Business Fundamentals includes foundation courses in several business functional areas. It is designed to help non-business majors learn business concepts, principles, and skills that can complement their major field competency if they seek a position in, or plan to start, a business.

The Certificate is not available to business majors or to Integrative Studies Majors who have Business or Music & Entertainment Business as a focus area. You must meet with a Coles Professional Advisor in the Business Undergraduate Advising Center (BB 431) to declare your intention to complete the Certificate. This meeting should occur as soon as possible, but no later than the end of the Drop/Add period of your graduation term.

At least 12 of the 18 hours counted toward the Certificate must be taken from Coles College of Business. A minimum grade of "C" is required in each course, and a GPA of at least 2.66 is required on the set of courses counted toward the Certificate.

Required Courses (15 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ECON 2100: Principles of Microeconomics
- IS 2200: Information Systems and Communication
- MGT 3100: Management and Behavioral Sciences
- MKTG 3100: Principles of Marketing

Select one of the following (3 Credit Hours)

- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2200: Principles of Macroeconomics

Certificate Total (18 Credit Hours)

Business Law Minor

Coles College of Business
School of Accountancy
(470) 578-6084
<http://coles.kennesaw.edu/>

The Business Law (BLAW) Minor prepares students for living and working with the law. It helps students understand legal issues related to business, and addresses ethical issues arising in business internal and external relationships. Completing the BLAW Minor will benefit students interested in law school.

Students completing a Business Law Minor must earn a grade of "C" or higher in all BLAW courses.

Required Course (3 Credit Hours)

- BLAW 2200: Legal and Ethical Environment of Business

Select four of the following (12 Credit Hours)

- BLAW 3400: Negotiation
- BLAW 4100: Advanced Business Law
- BLAW 4200: Employment Law
- BLAW 4300: Real Estate Law
- BLAW 4500: Franchise Law
- BLAW 4600: International Law: Business Applications
- BLAW 4960: Current Issues in Business Ethics and Law

Program Total (15 Credit Hours)

Coles Scholars Minor

Coles College of Business
Office for Undergraduate Programs
<http://coles.kennesaw.edu/>

The Coles College Scholars Program provides exceptional business students with unique and challenging opportunities through a coordinated multi-year program focused on leadership development, integrated and international studies, community engagement and mentorship. Participants must apply and are screened and selected annually through a rigorous application and interview process.

Required Courses

- CSCH 4010: Applied Leadership in Business
- CSCH 4020: Critical Thinking and Decision Making
- CSCH 4030: International Immersion

- CSCH 4040: Consulting & Change Management
- CSCH 4050: Business Intelligence

Program Total (15 Credit Hours)

Economics B.B.A.

Bachelor of Business Administration Degree

Coles College of Business

Department of Economics, Finance & Quantitative Analysis

<http://coles.kennesaw.edu/>

(470) 578-6091

Economics is the study of business firms; the functioning of regional, national, and global markets; and the development of analytical techniques that aid in decision making and understanding market behavior. The primary focus is on problem definition, model development, data gathering and analysis, model solution, and report generation in the areas of consumer behavior, business behavior, price determination, resource allocation, production and distribution of goods and services, and policies that affect output, employment, income, trade, growth, and inflation. There is a broad range of intellectual challenges within the economics major. Branches of Economics overlap such diverse areas as politics, finance, history, international business, management, marketing, business operations, and psychology.

The program of study in economics prepares students for careers in management, marketing, business research, economic planning, and human resources with employers in industry, trade, banking, and government. Students are also well prepared for graduate study in economics, law, and business.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Economics and graduate with an Economics B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to

Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or

- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1190: Calculus I
or
- MATH 1160: Elementary Applied Calculus

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (45 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirement (9 Credit Hours)

- ECON 4510: Microeconomics
- ECON 4610: Macroeconomics

Select one of the following:

- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance
- FIN 4420: International Financial Management

Major Field Electives (15 Credit Hours)

Select 15 credit hours from the following:

- ECON 4210: Money and Financial Markets
- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance
- ECON 4530: Public and Urban Economics
- ECON 4550: The Economics of Strategy
- ECON 4400: Directed Study
- ECON 4490: Special Topics in Economics and Quantitative Analysis

A maximum of 6 of the 15 hours in Major Field Electives may be selected from the following:

- ECON 4710: Econometrics
- ECON 4750: Multivariate Data Analysis
- ECON 4760: Business Forecasting
- ECON 4810: Quantitative Decision Models
- ECON 4850: Decision Analysis and Simulation
- FIN 4220: Corporate Finance
- FIN 4260: Short Term Financial Management
- FIN 4320: Fixed Income Securities
- FIN 4360: Investments
- FIN 4420: International Financial Management
- FIN 4520: Financial Derivatives and Financial Engineering
- FIN 4620: Financial Management of Financial Institutions
- FIN 4460: Financial Statement Analysis
- FIN 4490: Special Topics in Finance

Business Electives (9 Credit Hours)

- Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. ECON courses cannot be used here. (A maximum of nine hours of credit in Economics Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Guidance for Selecting Electives:

Students should select their Major Field Electives and their Business Electives and Non-Business Electives after careful consideration of career and/or graduate school aspirations. Discussions with faculty are advisable. If you are interested in Econometrics, ECON 4710, MATH 3260, and MATH 3332 are recommended to provide the core skills valuable in the workplace and as prerequisites to graduate studies. Students planning on graduate studies in economics should also take Calculus II (MATH 2202), Calculus III (MATH 2203), and Differential Equations (MATH 3310). However, all of these MATH courses will not fit within the 123 hours of the Economics degree.

Graduation Credit Hour Total (123 Credit Hours)

Economics Minor

Coles College of Business

Department of Economics, Finance, & Quantitative Analysis

(470) 578-6091

<http://coles.kennesaw.edu/>

A minor in Economics is an excellent complement to other business degrees, as well as degrees in mathematics and statistics. Supplementing these majors with a minor in Economics avails students to jobs in management, marketing, business research, economic planning, and human resources with employers in industry, trade, banking, and government. Students will also be well prepared for graduate study in economics, law, and business.

Required Course (3 Credit Hours)

- ECON 2200: Principles of Macroeconomics

Select four of the following (12 Credit Hours)

- ECON 4210: Money and Financial Markets
- ECON 4310: Economic Development in Global Perspective
- ECON 4510: Microeconomics
- ECON 4550: The Economics of Strategy
- ECON 4610: Macroeconomics
- ECON 4710: Econometrics
- ECON 4760: Business Forecasting
- ECON 4810: Quantitative Decision Models
- ECON 4850: Decision Analysis and Simulation

Program Total (15 Credit Hours)

Engagement Marketing Minor

Coles College of Business

Department of Marketing & Professional Sales

(470) 578-6060

<http://coles.kennesaw.edu/>

Learn how to take advantage of digital, mobile, multi-, and traditional media to engage with customers with an Engagement Marketing Minor. Whether one desires to work in social media, advertising, or a related field, this program will provide an understanding of the key components and dynamic relationship between brands and consumers.

Required Courses (9 Credit Hours)

- MKTG 3100: Principles of Marketing
- MKTG 4520: Social Media Marketing
- MKTG 4650: Advertising

Select two of the following (6 Credit Hours)

- MKTG 3150: Consumer Behavior
- MKTG 3800: Entertainment Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4670: Promotional Strategy
- MKTG 4880: Hospitality and Tourism Marketing

Program Total (15 Credit Hours)

Entrepreneurship B.B.A

Bachelor of Business Administration Degree

Coles College of Business, Department of Management and Entrepreneurship

(470)-578-6552

The program of study in entrepreneurship is designed for our students to foster deep thinking, experimentation, observation, and reflection as a means of instigating creativity and action into economic development. The program focus is broad and includes entrepreneurial orientation in a variety of settings including new venture creation, social stewardship, family business, government operations, and corporate endeavors. The goal is for our students to create an entrepreneurial mindset and spirit and the emphasis is on entrepreneurial application rooted in a solid foundation formed by successful organizational practices and theory.

View the special admission, progression, and graduation requirements of the Coles College of Business

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (45 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MKTG 3100: Principles of Marketing
- MGT 4199: Strategic Management

Information Technology Requirements (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (12 Credit Hours)

- ENTR 4001: Entrepreneurial Mind
- ENTR 4002: Venture Creation
- ENTR 4003: Venture Funding
- ENTR 4004: Venture Commercialization

Major Field Electives (12 Credit Hours)

Select 12 credit hours from the following courses:

- ACCT 4700: Valuation of Closely Held Businesses
- ENTR 4400: Directed Study

- ENTR 4490: Special Topics in Entrepreneurship
- FIN 4260: Short Term Financial Management
- MGT 4122: Venture Analysis
- MGT 4125: International Entrepreneurship
- MGT 4700: Hospitality Management
- MGT 4850: Managing Process Improvement
- MGT 4123: Family Business Management
- MGT 4124: Franchise Management
- MGT 4130: Commercial Real Estate Ventures
- MGT 4173: Human Resource Selection
- MGT 4185: Technology Management
- MGT 4200: Family Business Consulting
- MKTG 3410: Professional Selling
- MKTG 4520: Social Media Marketing
- MKTG 4666: Marketing for Entrepreneurs
- MKTG 4850: Business to Business Marketing

Business Electives (9 Credit Hours)

- Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. ENTR courses cannot be used here. (A maximum of nine hours of credit in Entrepreneurship Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Entrepreneurship Minor

Coles College of Business
Department of Management and Entrepreneurship
 (470)578-6552
<http://coles.kennesaw.edu>

The Entrepreneurship Minor is open to all undergraduate students. Students gain an

understanding of an entrepreneurial orientation in a variety of settings including new venture creation, social stewardship, family business, government operations, and corporate endeavors.

Requirements for Business Majors

Required Courses (12 credit hours)

- ENTR 4001: Entrepreneurial Mind
- ENTR 4002: Venture Creation
- ENTR 4003: Venture Funding
- ENTR 4004: Venture Commercialization

Select one of the following: (3 credit hours)

- ACCT 4700: Valuation of Closely Held Businesses
- ENTR 4400: Directed Study
- ENTR 4490: Special Topics in Entrepreneurship
- FIN 4260: Short Term Financial Management
- MEBU 3100: Fundamentals of the Music and Entertainment Business
- MGT 4122: Venture Analysis
- MGT 4123: Family Business Management
- MGT 4124: Franchise Management
- MGT 4125: International Entrepreneurship
- MGT 4130: Commercial Real Estate Ventures
- MGT 4173: Human Resource Selection
- MGT 4185: Technology Management
- MGT 4200: Family Business Consulting
- MGT 4700: Hospitality Management
- MGT 4850: Managing Process Improvement
- MKTG 3410: Professional Selling
- MKTG 4520: Social Media Marketing
- MKTG 4666: Marketing for Entrepreneurs
- MKTG 4850: Business to Business Marketing

Requirements for Non-Business Majors

Required Courses (15 credit hours)

- MGT 3100: Management and Behavioral Sciences
- ENTR 4001: Entrepreneurial Mind
- ENTR 4002: Venture Creation
- ENTR 4003: Venture Funding
- ENTR 4004: Venture Commercialization

Program Total: (15 Credit Hours)

Finance B.B.A.

Bachelor of Business Administration Degree

Coles College of Business

Department of Economics, Finance & Quantitative Analysis

(470) 578-6091

<http://coles.kennesaw.edu/>

There is a broad range of intellectual challenges within the field of finance which integrates and applies principles and concepts drawn from accounting, economics, business operations, and quantitative analysis in a global business environment. Finance is an analytical discipline dealing with the acquisition and distribution of funds, financial statement analysis, security analysis, risk assessment, valuation of assets and liabilities, functioning of financial markets, and management of investments, acquisitions, funds, assets, liabilities, risk, businesses, and financial institutions.

The program in finance prepares students for careers as bankers, financial managers, stockbrokers, financial analysts, portfolio managers, financial consultants, investment bankers, and financial planners. Students are also well prepared for graduate study in law and business.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Finance and graduate with a Finance B.B.A., All business majors must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. In order to be approved to take upper-division business courses and graduate with a B.B.A. degree. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1160: Elementary Applied Calculus
or

- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (45 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (9 Credit Hours)

- FIN 4220: Corporate Finance
- FIN 4360: Investments

Select one of the following:

- FIN 4420: International Financial Management
- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance

Major Field Electives (15 Credit Hours)*

Group A - Select 12 credit hours from the following:

- FIN 4260: Short Term Financial Management
- FIN 4320: Fixed Income Securities
- FIN 4400: Directed Study
- FIN 4460: Financial Statement Analysis
- FIN 4490: Special Topics in Finance
- FIN 4520: Financial Derivatives and Financial Engineering
- FIN 4560: Behavioral Finance
- FIN 4620: Financial Management of Financial Institutions
- FIN 4660: Advanced Corporate Finance
- INS 4500: Principles of Risk Management and Insurance
- RE 4500: Real Estate Finance

Group B - Select one (3 credit hours) of the following:

- ECON 4210: Money and Financial Markets
- ECON 4400: Directed Study
- ECON 4510: Microeconomics
- ECON 4550: The Economics of Strategy
- ECON 4610: Macroeconomics
- ECON 4710: Econometrics
- ECON 4750: Multivariate Data Analysis
- ECON 4810: Quantitative Decision Models
- ECON 4850: Decision Analysis and Simulation

Business Electives (9 Credit Hours)

- Nine hours of credit from upper-division (3000-4000 level) course offerings outside the Major, but inside the Coles College of Business. FIN courses cannot be used here. (A maximum of nine hours of credit in Finance Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) See a Coles Staff Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

**Guidance for Selecting Major Field Electives:*

If you are interested in a particular area of Finance, following are some suggested courses related to two areas of specialization: Capital Markets and Corporate Finance:

I. Capital Markets

- FIN 4320: Fixed Income Securities
- FIN 4460: Financial Statement Analysis
- FIN 4520: Financial Derivatives and Financial Engineering
- FIN 4560: Behavioral Finance
- INS 4500: Principles of Risk Management and Insurance

II. Corporate Finance

- FIN 4260: Short Term Financial Management
- FIN 4460: Financial Statement Analysis
- FIN 4560: Behavioral Finance
- FIN 4620: Financial Management of Financial Institutions
- FIN 4660: Advanced Corporate Finance
- RE 4500: Real Estate Finance

Graduation Credit Hour Total (123 Credit Hours)

Finance Minor

Coles College of Business

Department of Economics, Finance, & Quantitative Analysis

(470) 578-6091

<http://coles.kennesaw.edu/>

A minor in Finance is an excellent complement to other business degrees, particularly Accounting and Economics, as well as degrees in mathematics and statistics. Supplementing these majors with a minor in Finance avails students to jobs as bankers, financial managers, stockbrokers, financial analysts, portfolio managers, financial consultants, investment bankers, and financial planners.

Required Course (3 Credit Hours)

- FIN 3100: Principles of Finance

Select four of the following (12 Credit Hours)

- ECON 4210: Money and Financial Markets
- FIN 4220: Corporate Finance
- FIN 4260: Short Term Financial Management
- FIN 4320: Fixed Income Securities
- FIN 4360: Investments

- FIN 4420: International Financial Management
- FIN 4520: Financial Derivatives and Financial Engineering
- FIN 4620: Financial Management of Financial Institutions

Program Total (15 Credit Hours)

Information Security and Assurance B.B.A.

Bachelor of Business Administration Degree

Coles College of Business

Department of Information Systems

(470) 578-7763

<http://coles.kennesaw.edu/>

The purpose of the Bachelor of Business Administration in Information Security and Assurance (BBA-ISA) program is to create technologically proficient, business-savvy information security professionals capable of applying policy, education & training, and technology solutions to protect information assets from all aspects of threats, and to manage the risks associated with modern information usage. Information security is the protection of the confidentiality, integrity, and availability of information while in transmission, storage or processing, through the application of policy, technology, and education and awareness. Information assurance concerns information operations that protect and defend information and information systems by ensuring availability, integrity, authentication, confidentiality, and nonrepudiation. This program spans both areas in its approach to the protection of information in the organization.

The Department of Homeland Security and the National Security Agency have jointly designated Kennesaw State University as a National Center of Academic Excellence in Cyber Defense Education with specialized focus areas in Security Policy Development & Compliance and Systems Security Administration.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division ISA courses and graduate with an Information Security & Assurance B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (51 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (24 Credit Hours)

- ISA 3010: Security Script Programming
- ISA 3100: Principles of Information Security
- ISA 3200: Network Security
- ISA 3210: Client Systems Security
- ISA 3300: Management of Information Security in a Global Environment
- ISA 4200: Perimeter Defense
- ISA 4220: Server Systems Security
- ISA 4820: Information Security and Assurance Programs and Strategies

Major Field Electives (6 Credit Hours)

Select 6 credit hours from the following:

- IS 3920: Application Development II
- ISA 3710: International Issues in Information Security and Assurance
- ISA 4330: Incident Response and Contingency Planning
- ISA 4350: Management of Digital Forensics and eDiscovery
- ISA 4400: Directed Study in Information Security and Assurance
- ISA 4490: Special Topics in Information Security and Assurance
- ISA 4700: Emerging Issues in Information Security
- ISA 4805: Penetration Testing

Business Electives (6 Credit Hours)

- Six hours of credit from upper-division (3000-4000 level) course offerings outside the Major, but inside the Coles College of Business. ISA courses cannot be used here. (A maximum of six hours of credit in Information Security and Assurance Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) ISA Students are encouraged to take IS courses in this area. See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (3 Credit Hours)

- Three hours of credit from any lower-division (1000-2000 level) or upper-division (3000-4000 level) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Information Security and Assurance Minor

Coles College of Business
Department of Information Systems
(470) 578-7763
<http://coles.kennesaw.edu/>

The Minor in Information Security and Assurance is designed for students with an interest in Information Security and its application in the expanding field of technology. The Minor emphasizes the skills and knowledge necessary to protect and inspect systems, and to detect and react to threats to the security of information in those systems. The Minor requires 18 semester hours (6 courses), and all coursework must be completed with a grade of "C" or higher.

Required Courses (15 Credit Hours)

- IS 2200: Information Systems and Communication
- ISA 3100: Principles of Information Security
- ISA 3200: Network Security
- ISA 3210: Client Systems Security
- ISA 3300: Management of Information Security in a Global Environment

Select one of the following: (3 Credit Hours)

- ISA 4200: Perimeter Defense
- ISA 4220: Server Systems Security

Program Total (18 Credit Hours)

Information Security Certificate - Stand-Alone and Embedded

Coles College of Business
Department of Information Systems (IS)
(470) 578-7763
<http://coles.kennesaw.edu/>

The Certificate in Information Security and Assurance is designed for students with an interest in Information Security and its application in the expanding field of technology. The certificate program emphasizes the skills and knowledge necessary to protect and inspect systems, and to detect and react to threats to the security of information in those systems. The certificate requires 15 semester hours (5 courses), and all coursework must be completed with a "C" or better.

Required Courses (15 Credit Hours)

- ISA 3100: Principles of Information Security

- ISA 3200: Network Security
- ISA 3210: Client Systems Security
- ISA 3300: Management of Information Security in a Global Environment
- ISA 4330: Incident Response and Contingency Planning

Program Total (15 Credit Hours)

Information Systems B.B.A.

Bachelor of Business Administration Degree

Coles College of Business

Department of Information Systems

(470) 578-7763

<http://coles.kennesaw.edu/>

The BBA degree in information systems (IS) produces students who know how to apply technology as a driver of business strategy. This requires students to have strong technology skills, a clear understanding of business strategy, processes, and environment, and ultimately an ability to envision and apply technology solutions in a business environment. Students earning a BBA in information systems understand web and application development in the context of the business environment. Graduates have capabilities in systems analysis and design, database management, and IT project management. Students also have the opportunity to consider information systems strategy in the global environment and bring everything together into an IS capstone course. The program of study includes general business courses, and business topics are integrated into many IS courses. The BBA in IS provides students with flexible elective options. Elective courses focus on cutting-edge IT topics such as data mining and business intelligence.

Students completing the BBA in IS may choose to pursue graduate studies in IS, business, and related fields, or they may choose to begin careers in industry, government, or other agencies. Graduates of the IS program are prepared for a variety of careers in IS, especially in the design, implementation, and management of IT projects. Example job titles include application developer, application support, business analyst, business intelligence manager, client services analyst, database administrator, database analyst, information resource manager, IT consultant, programmer/analyst, project manager, quality assurance analyst, systems analyst, user support analyst, web developer, web page designer, and webmaster.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Information Systems and graduate with an Information Systems B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (48 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences

- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (21 Credit Hours)

- IS 3020: Application Development I
- IS 3040: IT Infrastructure
- IS 3060: Systems Analysis and Design
- IS 3220: Global IS Project Management
- IS 3260: Web Development I
- IS 3280: Data Management
- IS 4880: IS Capstone Course

Major Field Electives (6 Credit Hours)

Select 6 credit hours from the following:

- IS 3080: Information Resource Management
- IS 3560: Business Process Management
- IS 3720: Advanced IT Project Management
- IS 3740: Human Computer Interaction
- IS 3760: Web Development II
- IS 3920: Application Development II
- IS 4400: Directed Study
- IS 4490: Special Topics
- IS 4540: Data Mining
- IS 4560: e-Business Systems
- IS 4860: Global Information Systems Strategy
- ISA 3330: Information Security Approach to Crisis Management
- ISA 3710: International Issues in Information Security and Assurance

Business Electives (6 Credit Hours)

- Six hours of credit from upper-division (3000-4000 level) course offerings outside the major, but inside the Coles College of Business. IS courses cannot be used here. (A maximum of six hours of credit in Information Systems Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) IS Students are encouraged to take ISA courses in this area. See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000-2000 level) or upper-division (3000-4000 level) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Information Systems Certificate - Stand-Alone and Embedded

*Coles College of Business
Department of Information Systems
(470) 578-7763
<http://coles.kennesaw.edu/>*

Information systems(IS) is rapidly becoming as important to career entry and advancement as oral and written communication. In fact, recruiting experts believe that even a small amount of technology savvy and knowledge opens doors for anyone entering today's work place. This certificate is ideal for students who enjoy working with computers but do not wish to seek a degree in technology-related fields. It is also ideal for students who have already completed a bachelor's degree and seek the latest IS expertise. Students with degrees in fields such as accounting, biology, foreign language, English, criminal justice, and sociology will find that the addition of these important IS skills will make them far more marketable.

The IS Certificate offers KSU students knowledge and experience with the latest tools and technologies. Topics include web technologies, database technologies, and electronic commerce. Students are required to receive at least a "C" in courses in order to receive the certificate.

The IS Certificate requires one foundation course in IS, three 3-semester-hour approved IS courses, and one 3-semester-hour applied learning experience, for a total of 15 credit hours.

Required Courses (6 Credit Hours)

- IS 2200: Information Systems and Communication

One of the following experiential education courses:

- IS 3396: Cooperative Study
- IS 3398: Internship
- IS 4400: Directed Study

Experiential education courses from the department of the student's major program of study may be substituted with permission of the IS certificate Coordinator.

Electives (9 Credit Hours)

Choose 3 of the following courses:

- IS 3020: Application Development I
- IS 3080: Information Resource Management
- IS 3100: Information Systems Management
- IS 3220: Global IS Project Management
- IS 3260: Web Development I
- IS 3280: Data Management
- IS 3740: Human Computer Interaction
- IS 3760: Web Development II
- IS 4560: e-Business Systems
- ISA 3100: Principles of Information Security

Certificate Total (15 Credit Hours)

Information Systems Minor

Coles College of Business

Department of Information Systems

(470) 578-7763

<http://coles.kennesaw.edu/>

The Minor in Information Systems (IS) is made up of six (6) courses and can be a useful complement for a large number of degrees at KSU. The Minor is designed to prepare students with expertise to identify organizational needs, allocate technology-based solutions, and solve problems.

Required Courses (9 Credit Hours)

- IS 2200: Information Systems and Communication
- IS 3100: Information Systems Management
- IS 3260: Web Development I

Select one from the following (3 Credit Hours)

- IS 3020: Application Development I
- IS 3060: Systems Analysis and Design
- IS 3280: Data Management

And select two from the following (6 Credit Hours)

- IS 3080: Information Resource Management
- IS 3220: Global IS Project Management
- IS 3560: Business Process Management
- IS 3720: Advanced IT Project Management
- IS 3740: Human Computer Interaction
- IS 3760: Web Development II
- IS 3920: Application Development II

- IS 4400: Directed Study
- IS 4490: Special Topics
- IS 4540: Data Mining
- IS 4560: e-Business Systems
- IS 4860: Global Information Systems Strategy

Program Total (18 Credit Hours)

Interdisciplinary Music and Entertainment Business Certificate - Stand-Alone and Embedded

The Joel A. Katz Music and Entertainment Business Program is a joint venture between the Coles College of Business and the College of the Arts. The purpose of the Music and Entertainment Business program is to develop leaders for the entertainment industry. The MEBU program creates an intellectual synergy beyond what students can achieve in business or entertainment programs separately. Core content of the program includes: Business Fundamentals; Entertainment Industry Knowledge; Music Fundamentals; Production and Technology; Music, Film, and Digital Entertainment and Hands-on Experiences. The MEBU program provides students the opportunity to be successful in the music and entertainment industry.

Program Requirements

For Bachelor of Arts (BA) Candidates:

Required:

- ACCT 2100: Introduction to Financial Accounting
- MEBU 3100: Fundamentals of the Music and Entertainment Business
- MEBU 4100: Emerging Trends of the Music and Entertainment Business
- MEBU 4200: Current Topics in the Music and Entertainment Business

- MGT 3100: Management and Behavioral Sciences
or
- MKTG 3100: Principles of Marketing

- MEBU 2270: Entertainment Media Production
or
- MEBU 3398: Internship in the Music and Entertainment Business

Communication/MEBU courses

Select one from the following list:

- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4490: Special Topics in the Music and Entertainment Business
- COM 3315: Interviewing

- ORGC 3376: Interpersonal Communication
- MENT 4444: Film and Video Structure and Process
- JOUR 4470: Media Law

Music History Requirement:

Select one from the following:

- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music

Elective:

Select one (not used above) from the following:

- COM 2135: Writing for Public Communication
- COM 2230: Introduction to Mass Communication
- JOUR 3310: Concepts in New Media
- JOUR 3340: Digital Media Production
- COM 4490: Special Topics in Communication
- ECON 2100: Principles of Microeconomics
- FILM 3105: Fundamentals of Writing for Film and Television
- MEBU 4490: Special Topics in the Music and Entertainment Business
- MGT 3100: Management and Behavioral Sciences
- MGT 3190: Business, Ethics, and Society
- MGT 3600: Introduction to International Business
- MKTG 3100: Principles of Marketing
- MKTG 3800: Entertainment Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4650: Advertising
- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music
- MEBU 2270: Entertainment Media Production
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4470: Advanced Audio Production and Technology
- MEBU 3398: Internship in the Music and Entertainment Business

For Bachelor of Music (BM) Candidates:

Required:

- ACCT 2100: Introduction to Financial Accounting
- MEBU 3100: Fundamentals of the Music and Entertainment Business

- MEBU 4100: Emerging Trends of the Music and Entertainment Business
- MEBU 4200: Current Topics in the Music and Entertainment Business

- MGT 3100: Management and Behavioral Sciences
or
- MKTG 3100: Principles of Marketing

- MEBU 2270: Entertainment Media Production
or
- MEBU 3398: Internship in the Music and Entertainment Business

Communication/MEBU Courses:

Select one from the following list:

- COM 3315: Interviewing
- ORGC 3376: Interpersonal Communication
- MENT 4444: Film and Video Structure and Process
- JOUR 4470: Media Law
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4490: Special Topics in the Music and Entertainment Business

Music History Requirement:

Select one from the following:

- MUSI 1107: Music in Society
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music

Elective:

Select two (not used above) of from the following:

- COM 2135: Writing for Public Communication
- COM 2230: Introduction to Mass Communication
- JOUR 3310: Concepts in New Media
- JOUR 3340: Digital Media Production
- COM 4490: Special Topics in Communication
- ECON 2100: Principles of Microeconomics
- FILM 3105: Fundamentals of Writing for Film and Television
- MEBU 4490: Special Topics in the Music and Entertainment Business
- MGT 3100: Management and Behavioral Sciences
- MGT 3190: Business, Ethics, and Society
- MGT 3600: Introduction to International Business
- MKTG 3100: Principles of Marketing
- MKTG 3800: Entertainment Marketing
- MKTG 4500: Internet Marketing and Global Business

- MKTG 4650: Advertising
- MUSI 1107: Music in Society
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music
- MEBU 2270: Entertainment Media Production
- MEBU 3370: Fundamentals of Audio Production and Technology
- MUED 4470: Student Teaching/Seminar

For Bachelor of Business Administration (BBA) Candidates:

Required:

- MEBU 3100: Fundamentals of the Music and Entertainment Business
- MEBU 4100: Emerging Trends of the Music and Entertainment Business
- MEBU 4200: Current Topics in the Music and Entertainment Business
- MUSI 1020: Fundamentals of Music Theory

- MEBU 2270: Entertainment Media Production
or
- MEBU 3398: Internship in the Music and Entertainment Business

Communication/MEBU courses:

Select one from the following list:

- COM 3315: Interviewing
- ORGC 3376: Interpersonal Communication
- MENT 4444: Film and Video Structure and Process
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4490: Special Topics in the Music and Entertainment Business

Music History Requirement:

Select two from the following:

- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music

Elective:

Select two (not used above) from the following:

- COM 2135: Writing for Public Communication
- COM 2230: Introduction to Mass Communication
- JOUR 3310: Concepts in New Media
- JOUR 3340: Digital Media Production

- COM 4490: Special Topics in Communication
- FILM 3105: Fundamentals of Writing for Film and Television
- MEBU 4490: Special Topics in the Music and Entertainment Business
- MKTG 3800: Entertainment Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4650: Advertising
- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 1121: Music Theory I
- MUSI 1122: Music Theory II
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music
- MEBU 2270: Entertainment Media Production
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4470: Advanced Audio Production and Technology

For Bachelor of Science (BS) Candidates:

Required:

- ACCT 2100: Introduction to Financial Accounting
- MEBU 3100: Fundamentals of the Music and Entertainment Business
- MEBU 4100: Emerging Trends of the Music and Entertainment Business
- MEBU 4200: Current Topics in the Music and Entertainment Business
- MUSI 1020: Fundamentals of Music Theory

- MGT 3100: Management and Behavioral Sciences
or
- MKTG 3100: Principles of Marketing

- MEBU 2270: Entertainment Media Production
or
- MEBU 3398: Internship in the Music and Entertainment Business

Communication/MEBU courses:

Select one from the following list:

- COM 3315: Interviewing
- ORGC 3376: Interpersonal Communication
- MENT 4444: Film and Video Structure and Process
- JOUR 4470: Media Law
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4490: Special Topics in the Music and Entertainment Business

Music History Requirement:

Select one from the following:

- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music

Elective:

Select one (not used above) from the following:

- ECON 2100: Principles of Microeconomics
- FILM 3105: Fundamentals of Writing for Film and Television
- MEBU 4490: Special Topics in the Music and Entertainment Business
- MGT 3100: Management and Behavioral Sciences
- MGT 3190: Business, Ethics, and Society
- MGT 3600: Introduction to International Business
- MKTG 3100: Principles of Marketing
- MKTG 3800: Entertainment Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4650: Advertising
- MUSI 1107: Music in Society
- MUSI 1110: Introduction to World Music
- MUSI 1121: Music Theory I
- MUSI 1122: Music Theory II
- MUSI 3411: Survey of African-American Music
- MUSI 4412: Survey of American Music
- MEBU 2270: Entertainment Media Production
- MEBU 3370: Fundamentals of Audio Production and Technology
- MEBU 4470: Advanced Audio Production and Technology

Program Total (24 Credit Hours)

International Business B.B.A.

*Bachelor of Business Administration Degree
Coles College of Business
Department of Marketing and Professional Sales
(470) 578-6060
<http://coles.kennesaw.edu/>*

The program of study in International Business is designed for students who are actively seeking to focus their education on the international dimensions of business. The curriculum for this major provides students with a solid foundation of traditional liberal arts components of a baccalaureate education, the traditional components of a business school education, plus the international dimensions of business, foreign language, and an international study experience. Students also complete a Concentration Area in one of the business functional disciplines.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses and graduate with an International Business B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

International Business Majors must also earn a grade of "C" or better in the courses that satisfy their foreign language and international study experience requirements.

General Education (42 Credit Hours)

See listing of Requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area B:

- FL 1002: Introduction to Foreign Language and Culture II (See language restrictions below.)

In Area D:

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Foreign Language Requirement (12 Credit Hours)

- 12 hours of approved foreign language skills courses at the 2000- and 3000-level or above. Students must choose from Chinese, French, German, Italian, Korean, Portuguese, or Spanish and complete 2001, 2002, and 6 credit hours at the 3000- level or above that focus on foreign language skill development. These 3000- level courses must be approved by the Executive Director of the B.B.A. Program and should not be

taken prior to receiving the Executive Director's pre-approval.

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (48 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (15 Credit Hours)

- MGT 3600: Introduction to International Business
- ECON 4410: International Trade and Finance
- FIN 4420: International Financial Management
- MGT 4190: International Management
- MKTG 4820: International Marketing

Major Field Electives (9 Credit Hours)

Select 9 credit hours from the following:

- BUSA 3500: Culture & International Business
- ECON 4310: Economic Development in Global Perspective
- IS 3220: Global IS Project Management

- IS 4860: Global Information Systems Strategy
- MGT 4125: International Entrepreneurship
- MGT 4174: International Human Resource Management
- MGT 4800: International Supply Chain Management
- MGT/MKTG 4476: Contemporary Global Business Practices
- MKTG 4500: Internet Marketing and Global Business
- ASIA 3355: Cultures and Capitalisms in Asia
- ASIA 3950: Technology Strategy in Asia
- LDRS 3200: Leadership in a Global Society

- CHNS 4404: Commercial Chinese
or
- FREN 4404: Commercial French
or
- GRMN 4404: Commercial German
or
- SPAN 4404: Commercial Spanish

- GEOG 3312: Geography of Europe
or
- GEOG 3330: Economic Geography
or
- GEOG 3350: Geography of Sub-Saharan Africa
or
- GEOG 3360: Geography of Asia
or
- GEOG 3370: Geography of Latin America and the Caribbean

- Other business and non-business courses that have appropriate international and/or business content might be approved by the Executive Director of the B.B.A. Program. These courses should not be taken prior to receiving the Executive Director's pre-approval.

Business Elective (3 Credit Hours)

- Three hours of credit from upper-division (3000/4000) course offerings inside the Coles College of Business. (A maximum of three hours of credit in Internships may be used in this area. Internships cannot be used in any other area.) See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Education Abroad Requirement

- The International Business B.B.A. degree requires that six credit hours used towards meeting the above requirements be earned in an approved Education Abroad program(s), and that at least 3 of these credit hours are for a business or a foreign

language course. These courses used to satisfy this requirement must be approved by the Executive Director of the B.B.A. Program and should not be taken prior to receiving the Executive Director's pre-approval.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Management B.B.A.

Bachelor of Business Administration Degree
Coles College of Business
Department of Management & Entrepreneurship
(470) 578-6552
<http://coles.kennesaw.edu/>

The program of study in management is designed to prepare students for leadership roles in the field of management. Management is the process of planning, organizing, staffing, directing and controlling activities in an organization that will result in the achievement of a common goal. Managers make decisions and direct resources so that organizational goals and objectives are achieved.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Management and graduate with a Management B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Area A

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

Area D

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

Area E

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (45 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (15 Credit Hours)

- MGT 4001: Managing Organizations
- MGT 4002: Managing People
- MGT 4003: Managing Projects
- MGT 4004: Managing Your Company

And select 3 credit hours from the following international courses:

Managing Globally: Management Majors are required to show competency in managing within the global context.

- MGT 4125: International Entrepreneurship
- MGT 4174: International Human Resource Management
- MGT 4190: International Management
- MGT 4476: Contemporary Global Business Practices
- MGT 4800: International Supply Chain Management

Major Field Electives (9 Credit Hours)*

Select 9 credit hours from the following, other than the course used above:

- MGT 3190: Business, Ethics, and Society
- MGT 3600: Introduction to International Business
- MGT 4122: Venture Analysis
- MGT 4123: Family Business Management
- MGT 4124: Franchise Management
- MGT 4125: International Entrepreneurship
- MGT 4130: Commercial Real Estate Ventures
- MGT 4161: Organizational Communications
- MGT 4171: Employee and Labor Relations
- MGT 4172: Compensation and Reward Systems
- MGT 4173: Human Resource Selection
- MGT 4174: International Human Resource Management
- MGT 4185: Technology Management
- MGT 4190: International Management
- MGT 4476: Contemporary Global Business Practices
- MGT 4700: Hospitality Management
- MGT 4800: International Supply Chain Management
- MGT 4850: Managing Process Improvement
- MGT 4860: Quality Management
- MGT 4880: Service Operations Management
- MGT 4400: Directed Study
- MGT 4490: Special Topics in Management
- BLAW 4960: Current Issues in Business Ethics and Law
- MKTG 4666: Marketing for Entrepreneurs
- BUSA 3500: Culture & International Business
- ENTR 4001: Entrepreneurial Mind
- ENTR 4002: Venture Creation
- ENTR 4003: Venture Funding
- ENTR 4004: Venture Commercialization

Business Electives (9 Credit Hours)

- Nine hours of credit from upper-division (3000/4000) course offerings outside the

Major, but inside the Coles College of Business. MGT courses cannot be used here. (A maximum of nine hours of credit in Management Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.)

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Note:

Students following this Catalog for the B.B.A. with a Management Major cannot use MGT 4120, MGT 4160, or MGT 4170 in the Major Field Electives section or anywhere else.

**Guidance for Selecting Major Field Electives:*

If you are interested in a particular area of Management, following are some suggested courses related to three areas of specialization: Human Resource Management, Entrepreneurship, and Operations and Supply Chain Management.

I. Human Resource Management

- MGT 4171: Employee and Labor Relations
- MGT 4172: Compensation and Reward Systems
- MGT 4173: Human Resource Selection
- MGT 4174: International Human Resource Management

II. Entrepreneurship

- MGT 4122: Venture Analysis
- MGT 4123: Family Business Management
- MGT 4124: Franchise Management
- MGT 4130: Commercial Real Estate Ventures

III. Operations and Supply Chain Management

- MGT 4800: International Supply Chain Management
- MGT 4850: Managing Process Improvement
- MGT 4860: Quality Management
- MGT 4880: Service Operations Management

Graduation Credit Hour Total (123 Credit Hours)

Management Minor

Coles College of Business

Department of Management & Entrepreneurship

(470) 478-6552

<http://coles.kennesaw.edu/>

The Management Minor is open to all undergraduate students. Students gain an understanding of the organizational processes of planning, organizing, staffing, directing, and controlling activities that result in the achievement of a common goal.

Requirements for non-business majors:

- MGT 3100: Management and Behavioral Sciences
- MGT 4001: Managing Organizations
- Three (3) courses from BUSA 3500 and 4000-level MGT courses, except NOT MGT 4199

Program Total (15 Credit Hours)

Requirements for business majors:

- MGT 4001: Managing Organizations
- Four (4) courses from BUSA 3500 and 4000-level MGT courses, except NOT MGT 4199

Program Total (15 Credit Hours)

Marketing B.B.A.

Bachelor of Business Administration Degree

Coles College of Business

Department of Marketing & Professional Sales

(470) 578-6060

<http://coles.kennesaw.edu/>

Marketing affects us every day of our lives. A field devoted to promoting an organization's goods and services to potential customers, marketing helps deliver to average consumers a standard of living that would have been inconceivable to previous generations.

Majoring in marketing can lead to a personally satisfying and financially rewarding career in the fields of marketing, sales, or sales management. The marketing curriculum merges marketing theory with real-world practice to prepare students for working with either for-profit or nonprofit organizations. Students may choose a general program of study or one of the specialized paths including channels marketing, social media and engagement marketing, sports and hospitality marketing, and professional sales.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-

division courses in Marketing and graduate with a Marketing B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement, and be admitted to the Coles Undergraduate [JECI] Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1160: Elementary Applied Calculus
or
- MATH 1190: Calculus I

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (48 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management
- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (15 Credit Hours)

- MKTG 3150: Consumer Behavior
- MKTG 3410: Professional Selling
- MKTG 4100: Marketing Research
- MKTG 4820: International Marketing
- MKTG 4990: Marketing Strategy

Major Field Electives (12 Credit Hours)*

Select 12 credit hours from the following:

- MKTG 3800: Entertainment Marketing
- MKTG 4300: Basic Retailing
- MKTG 4350: Retail Management
- MKTG 4400: Directed Study
- MKTG 4430: Market Analysis
- MKTG 4450: Sales Management
- MKTG 4476: Contemporary Global Business Practices
- MKTG 4490: Special Topics in Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4620: Services Marketing
- MKTG 4630: Direct Response Marketing
- MKTG 4650: Advertising
- MKTG 4666: Marketing for Entrepreneurs
- MKTG 4670: Promotional Strategy
- MKTG 4750: Advanced Selling
- MKTG 4850: Business to Business Marketing
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing

Business Electives (6 Credit Hours)

- 6 hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. MKTG courses cannot be used here. (A maximum of 6 hours of credit in Marketing Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area.) See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- 6 hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

**Guidance for Selecting Major Field Electives:*

The Department offers a wide variety of marketing courses. Outlined below are suggested courses related to four potential career paths: Channels Marketing, Professional Selling, Social Media and Engagement Marketing, and Sports and Hospitality Marketing. If you would rather create your own path, please consult with a Career Coach or one of the Marketing and Professional Sales Faculty on the Coles Advising Team.

I. Channels Marketing

Channels marketing is a career path designed to engage channel members responsible for getting products into consumers' hands. Jobs in this field include both online and traditional retailing, business-to-business, and service environments.

- MKTG 4300: Basic Retailing
- MKTG 4350: Retail Management
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4620: Services Marketing
- MKTG 4750: Advanced Selling

II. Professional Selling

Professional Selling is concerned with designing and delivering effective sales presentations, analyzing and managing individual accounts, and managing a sales force.

- MKTG 4430: Market Analysis
- MKTG 4450: Sales Management
- MKTG 4750: Advanced Selling
- MKTG 4850: Business to Business Marketing

III. Social Media and Engagement Marketing

Social media and engagement marketing focuses on activities that include consumers as participants. The primary emphasis is on promotions and includes two-way communication as

well as digital, mobile, multi-, and traditional media.

- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4630: Direct Response Marketing
- MKTG 4650: Advertising
- MKTG 4670: Promotional Strategy

IV. Sports and Hospitality Marketing

Sports and hospitality marketing concentrates on opportunities in the growing fields of sports, entertainment, restaurants, hotels, travel, and tourism.

- MKTG 3800: Entertainment Marketing
- MKTG 4620: Services Marketing
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing

Graduation Credit Hour Total (123 Credit Hours)

Marketing Minor

Coles College of Business

Department of Marketing & Professional Sales

(470) 578-6060

<http://coles.kennesaw.edu/>

In its role as the "central function of business" (P. Drucker), a Marketing Minor fits nicely with anyone pursuing a degree in another area of business. Marketing also serves as a complement to many non-business degrees for individuals expecting to own their own practices or businesses.

Required Courses (15 credit hours)

- MKTG 3100: Principles of Marketing
- MKTG 3150: Consumer Behavior
- Three other 3000- or 4000-level MKTG courses, except NOT MKTG 3396, MKTG 3398, or MKTG 4990

Program Total (15 Credit Hours)*

**Note:*

Professional Sales Majors cannot use courses being counted toward a Marketing Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.

Operations and Purchasing Minor

Coles College of Business

*Department of Management & Entrepreneurship
(470) 578-6552
<http://coles.kennesaw.edu/>*

The Operations and Purchasing Minor is open to all undergraduate students. This Minor trains students with tangible, marketable skills for their careers, including process improvement, quality management, supply chain, purchasing, logistics, operations management, and service operations.

Required Courses (15 Credit Hours)

- MGT 3200: Operations Management
- MGT 4800: International Supply Chain Management
- MGT 4850: Managing Process Improvement
- MGT 4860: Quality Management
- MGT 4880: Service Operations Management

Program Total (15 Credit Hours)*

**Note:*

Management Majors cannot use courses being counted toward an Operations & Purchasing Minor as Business Electives, because your Business Electives cannot have a MGT prefix.

Professional Sales B.B.A.

*Bachelor of Business Administration Degree
Coles College of Business
Department of Marketing & Professional Sales
(470) 578-6060
<http://coles.kennesaw.edu/>*

Many job opportunities exist in professional sales for graduates who enjoy the independence and economic rewards that a sales career provides. A major in professional selling focuses on business-to-business selling, helping students learn how to design and deliver effective sales presentations, analyze and manage individual accounts and markets, develop sales plans, and manage the sales force.

The Coles College of Business has special admission, progression, and graduation requirements that must be met by students seeking the B.B.A. degree. In order to be able to take upper-division courses in Marketing and graduate with a Professional Sales B.B.A., students must successfully complete BUSA 2150 and the Coles College Sophomore GPA Requirement and be admitted to the Coles Undergraduate Professional Program. Admission to the Coles Undergraduate Professional Program is separate from admission to Kennesaw State University. In addition, all business majors must earn a grade of "C" or better in all business courses counted toward their degree.

View the special admission, progression, and graduation requirements of the Coles College of Business.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this Major:

In Area A:

- MATH 1111: College Algebra
or
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

In Area D:

- MATH 1190: Calculus I
or
- MATH 1160: Elementary Applied Calculus

In Area E:

- ECON 2100: Principles of Microeconomics

Lower Division Business Core (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- ECON 2100: Principles of Microeconomics (hours counted in General Education)
- ECON 2200: Principles of Macroeconomics
- ECON 2300: Business Statistics
- IS 2200: Information Systems and Communication

Leadership and Career Program (0 Credit Hours)

- BUSA 2150: Discovering My Major and Career
- BUSA 3150: Developing My Career Essentials
- BUSA 4150: Driving My Success

Upper Division Major Requirements (45 Credit Hours)

Upper Division Business Core (18 Credit Hours)

- ECON 3300: Applied Statistical and Optimization Models
- FIN 3100: Principles of Finance
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- MGT 3200: Operations Management

- MGT 4199: Strategic Management

Information Technology Requirement (3 Credit Hours)

- IS 3100: Information Systems Management

Major Field Requirements (18 Credit Hours)

- MKTG 3410: Professional Selling
- MKTG 4430: Market Analysis
- MKTG 4450: Sales Management
- MKTG 4750: Advanced Selling
- MKTG 4820: International Marketing
- MKTG 4850: Business to Business Marketing

Major Field Electives (6 Credit Hours)

Select 6 credit hours from the following:

- MKTG 3150: Consumer Behavior
- MKTG 3800: Entertainment Marketing
- MKTG 4100: Marketing Research
- MKTG 4300: Basic Retailing
- MKTG 4350: Retail Management
- MKTG 4400: Directed Study
- MKTG 4476: Contemporary Global Business Practices
- MKTG 4490: Special Topics in Marketing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4620: Services Marketing
- MKTG 4630: Direct Response Marketing
- MKTG 4650: Advertising
- MKTG 4666: Marketing for Entrepreneurs
- MKTG 4670: Promotional Strategy
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing
- MKTG 4990: Marketing Strategy

Business Electives (9 Credit Hours)

- Nine hours of credit from upper-division (3000/4000) course offerings outside the Major, but inside the Coles College of Business. MKTG courses cannot be used here. (A maximum of six hours of credit in Professional Sales Co-Ops and Internships may be used in this area. Co-Ops and Internships cannot be used in any other area). See a Coles Professional Advisor before taking MGT courses to count here - some MGT courses cannot be used here.

Non-Business Electives (6 Credit Hours)

- Six hours of credit from any lower-division (1000/2000) or upper-division (3000/4000) non-business courses offered at Kennesaw State.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Professional Sales Minor

Coles College of Business

Department of Marketing & Professional Sales

(470) 578-6060

<http://coles.kennesaw.edu/>

Nearly everyone is involved in sales daily and nearly half of all college graduates begin their careers in the field of sales. The Minor in Professional Sales prepares students to excel in sales encounters.

Required Courses (15 Credit Hours)

- MKTG 3100: Principles of Marketing
- MKTG 3410: Professional Selling
- MKTG 4430: Market Analysis
- MKTG 4450: Sales Management
- MKTG 4850: Business to Business Marketing

Program Total (15 Credit Hours)*

*Note:

Marketing Majors cannot use courses being counted toward a Professional Sales Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.

Sports Marketing Minor

Coles College of Business

Department of Marketing & Professional Sales

(470) 578-6060

<http://coles.kennesaw.edu/>

Whether one wants to work in the big leagues or promote a sports and entertainment venue, the Sports Marketing Minor provides understanding of the particular dynamics of this industry and its audiences. Sports marketing includes the administration, coordination, and evaluation of

any type of event related to sport. The related field of hospitality marketing includes event planning, lodging, travel, and other leisure-oriented industries.

Required Courses (6 Credit Hours)

- MKTG 3100: Principles of Marketing
- MKTG 4870: Sports Marketing

Select three of the following (9 Credit Hours)

- MKTG 3150: Consumer Behavior
- MKTG 3410: Professional Selling
- MKTG 3800: Entertainment Marketing
- MKTG 4300: Basic Retailing
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4620: Services Marketing
- MKTG 4650: Advertising
- MKTG 4670: Promotional Strategy
- MKTG 4880: Hospitality and Tourism Marketing

Program Total (15 Credit Hours)

**Note:*

Marketing Majors and Professional Sales Majors cannot use courses being counted toward a Sports Marketing Minor as Business Electives, because your Business Electives cannot have a MKTG prefix.

Bagwell College of Education

Computer Science Education (Teacher Certification Endorsement)

Department of Computer Science

(470) 578-6005

<http://cs.kennesaw.edu/>

This endorsement program is intended to prepare computer science teachers of adolescents, largely at the secondary school level (grades 6 through 12). It leads to teacher certification in the teaching field of computer science in Georgia. As an endorsement, the teaching candidate must already have or simultaneously obtain a teaching certification in another field. This program of study is fully approved by Georgia's Professional Standards Commission for 6-12 teacher certification.

Advising

Students who are interested in this program should seek advising as early as possible. Additional advising will be provided upon entry to the pedagogical course CSED 4416. This advising will help students coordinate their courses in this program with the courses in their primary program. It will also help in scheduling student teaching at an appropriate school.

Teaching Field Requirements (11 Credit Hours)

- CS 1301: Programming Principles I
- CS 1302: Programming Principles II
- ICT 2101: Information and Communications Technology

Professional Education (6-12) (4 Credit Hours)

- CSED 4416: Teaching of Computer Science
- CSED 4417: Computer Science Teaching Practicum

Program Total (15 Credit Hours)

Early Childhood Education Birth through Kindergarten Education B.S.

Bachelor of Science Degree in Early Childhood Education Birth through Kindergarten

Bagwell College of Education

Department of Elementary and Early Childhood Education

(470) 578-6121

Current research indicates that early childhood programs with well-prepared, highly qualified teachers have long-term positive benefits for children and the community. Based on this

research and Georgia's approved certification in Birth through Kindergarten (B-K) Education, the Kennesaw State University Bagwell College of Education B-K Early Education Undergraduate Program has been developed to assist individuals who have a desire to instruct and work with infants, toddlers, preschool and kindergarten children.

Graduates of the program will be prepared to provide instruction to very young children. Graduates will also be familiar with global perspectives on early learning and teaching. The B-K Undergraduate Degree Program addresses the needs of the whole child based on national and state standards. Teacher candidates in the program may be placed in diverse field settings that will focus on (1) developmentally appropriate best practices, (2) current research on the development of infant, toddler and young children, (3) families and communities in a global setting, (4) English Language Learners, and (5) children with special learning needs.

Admission to teacher education is separate from admission to Kennesaw State University. Candidates typically apply for admission to Teacher Education as sophomores after having completed most of their general education requirements. Applications for admission to Teacher Education should be submitted online through Owl Express under the "Student Services" menu.

A criminal history background check will be performed prior to admission to Teacher Education. In addition, if determined by the background check that a student is a multi-state offender, the student will be required to pay a fee and be fingerprinted. Results of either the criminal history background check and/or fingerprinting may preclude admission to teacher education. For more information on the criminal history process, students should contact the Center for Education Placements and Partnerships (CEPP).

In order to be considered for admission to teacher education programs, candidates must have completed the following requirements:

I. Coursework:

- At least 45 semester hours of accredited college coursework.
- ENGL 1101 and 1102 with grades of "C" or better.
- EDUC 2110* with a grade of "C" or better, a satisfactory field experience evaluation, and recommendation from the EDUC 2110 instructor. (Students with transfer credit for EDUC 2110 must provide their own Supplemental Teacher Recommendation.)

*or provide proof of credit from an approved Georgia Pathways Program

2. GPA requirements:

- Achieved a minimum, adjusted or cumulative GPA of 2.75 for all coursework completed at Kennesaw State University. However, only candidates who have earned a KSU adjusted or cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. Students with a 2.75-2.99 GPA will be admitted on a case-by-case basis.
- Transfer students with a cumulative transfer GPA (as used by KSU Admissions) may be considered for teacher education admission their first semester at KSU. Only candidates who have achieved a transfer cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. After their first semester at KSU without teacher education admission, transfer students will be required to earn a cumulative or adjusted KSU GPA as

explained above.

- No grade lower than "C" in Lower Division Major and Teaching Field courses as required by the programs in teacher education.
3. Register with the Georgia Professional Standards Commission to obtain a MyPSC account and PSC identification number.
 4. Entrance exams requirements:
 5. Pass or exempt* the GACE Program Admission Assessment Tests (200, 201 & 202 or combined test 700) regardless of matriculation date.
 6. Complete the Georgia Educator Ethics - Program Entry exam (350).
 7. Some degree programs in teacher education have additional admissions requirements. It is the student's responsibility to consult those departments and program advisors.

* The GACE Program Admission Assessment tests are comprehensive exams covering reading, writing, and mathematics. Regardless of matriculation date, the GACE Program Admission Assessment tests are a requirement for entrance into the Teacher Education Program at Kennesaw State University. Candidates should plan to take the tests prior to applying to the Teacher Education Program. Students with the following minimum scores on Collegiate SAT, ACT or GRE examinations may exempt GACE Program Admission Assessment by submitting proof of scores to the Certification Officer located in the William D. Impey Teacher Education Advisement Center, located in Education Student Services (ESS):

- SAT: at least 1000 (Critical Reading and Mathematics)
- ACT: at least 43 (English and Mathematics)
- GRE: at least 1030 (Verbal and Quantitative)
- at least 297 (Verbal and Quantitative) 08/01/2011 and after

Candidates who believe they qualify for this exemption should see the Certification Officer in the William D. Impey Teacher Education Advisement Center, located in Education Student Services (ESS) to establish and record the exemption. The center can also provide further information concerning the GACE Program Admission at (470) 578-6105.

Any supporting documents (i.e. SAT or ACT exemption scores or Supplemental Teacher Recommendations) must be submitted to the William D. Impey Teacher Education Advisement Center (located in ESS) on or before the following deadlines:

Admission to Teacher Education Program for

- Fall Semester - 1st day of Spring
- Summer - Final Grades Due Date
- Spring Semester - 1st day of Fall
- Fall - final Grades Due Date

Applicants will be reviewed by ESS and by the Admission and Academic Standing Committee of the applicant's proposed degree program. All candidates who have met the requirements outlined above will be considered for admission. Only candidates who have achieved an adjusted GPA of 3.0 or higher will be guaranteed a place in their teacher education program of choice.

Candidates who have been denied admission must remove deficiencies within three semesters of the initial application for admission in order to be eligible for reconsideration for entry into a teacher education program.

Candidates will be informed of their admission status by email to their Kennesaw State University Student email account. Candidates must enroll in the semester for which they have been admitted, or they must re-apply and meet the admission requirements for a subsequent semester. KSU will request that teacher education candidates be issued a Pre-Service Certificate by the Georgia Professional Standards Commission (PSC). To be eligible for this certificate, candidates must:

- Submit a complete PSC Pre-Service Certification application packet.
- Be enrolled in an educator preparation program leading to initial certification.
- Have a successful background check (conducted prior to application).
- Complete PSC GACE Ethics Entry Exam (test code 350).
- Verify enrollment in a KSU educator preparation program through personal MyPSC account.

A Pre-Service Certificate is required to participate in field experiences associated with courses required in teacher education programs.

Birth - Kindergarten Program Required Curriculum

There are three different concentrations from which students may choose if one is focusing on Birth-Kindergarten - Traditional Certification, Non-Certification, and Montessori. All three concentrations require the same General Education curriculum and lower division (Area F) courses.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning
- ECE 2250: Child Development and Early Learning
- ECE 2540: Health, Wellness and the Young Child
- ECE 2590: Families, Communities and Schools: Partners in Education

Traditional Certification Concentration

This concentration prepares graduates to qualify for the Georgia Professional Standards Commission's (PSC) Birth through Kindergarten teaching certificate.

Additional Major Requirements (6 Credit Hours)

- ISCI 2001: Life and Earth Science
or

- ISCI 2002: Physical Science
- MATH 2008: Foundations of Numbers and Operations

Upper Division Major Requirements (17 Credit Hours)

- ECE 2205: Organization and Administration of Early Childhood Programs
- ECE 3364: Children's Literature
- ECE 3510: Fostering Young Children's Learning Through Play
- ECE 3575: International Approaches to Early Care and Learning
- INED 3304: Education of Exceptional Students
- ITEC 3100: Improving Learning with Technology in Elementary Classrooms

Professional Education Requirements (37 Credit Hours)

- ECE 3313: Preschool Curriculum and Assessment
- ECE 3565: Infant/Toddler Practicum
- ECE 3570: Preschool Practicum
- ECE 3520: Infant and Toddler Curriculum and Assessment
- ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs
- ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten
- ECE 4525: Methods of Nurturing Second Language Acquisition
- ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs
- ECE 4545: Methods in Math & Science in Birth through Kindergarten
- ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten
- ECE 4650: Yearlong Clinical Experience I (P-5)
- ECE 4660: Yearlong Clinical Experience II (P-5)
- EDUC 4610: Introduction to the Yearlong Clinical Experience

Program Total (120 Credit Hours)

Non-Certification Concentration

This concentration prepares graduates for work in Birth - Kindergarten settings where teacher certification is not required.

Additional Major Requirements (6 Credit Hours)

- ISCI 2001: Life and Earth Science
or
- ISCI 2002: Physical Science
- MATH 2008: Foundations of Numbers and Operations

Upper Division Major Requirements (17 Credit Hours)

- ECE 2205: Organization and Administration of Early Childhood Programs
- ECE 3364: Children's Literature
- ECE 3510: Fostering Young Children's Learning Through Play

- ECE 3575: International Approaches to Early Care and Learning
- INED 3304: Education of Exceptional Students
- ITEC 3100: Improving Learning with Technology in Elementary Classrooms

Professional Education Requirements (37 Credit Hours)

- ECE 3313: Preschool Curriculum and Assessment
- ECE 3565: Infant/Toddler Practicum
- ECE 3570: Preschool Practicum
- ECE 3520: Infant and Toddler Curriculum and Assessment
- ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs
- ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten
- ECE 4525: Methods of Nurturing Second Language Acquisition
- ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs
- ECE 4545: Methods in Math & Science in Birth through Kindergarten
- ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten
- ECE 4598: Birth through Five Internship I
- ECE 4599: Birth through Five Internship II

Program Total (120 Credit Hours)

Montessori Concentration

The Montessori Concentration of the Bachelor of Science in Early Childhood Education Birth through Kindergarten program is designed to prepare early childhood professionals to work effectively with infants, toddlers and children from three to five years of age and to meet the standards of the Montessori Accreditation Council for Teacher Education. Candidates will understand and learn to implement developmentally appropriate best practices with young children. Candidates will develop sensitivity to cultural and linguistic diversity and will learn to respond appropriately to the individual needs and differences of all children, including those that experience atypical development. Candidates who complete this program will also be recommended for Montessori certification through the Pan American Montessori Society (PAMS). More information may be located at www.montessori-pams.org.

Upper Division Major Requirements (20 Credit Hours)

- ECE 2205: Organization and Administration of Early Childhood Programs
- ECE 3410: Human Reproduction, Perinatal Development, Health, Safety, and Nutrition
- ECE 3415: Infants: Stages of Growth and Development & Developmentally Appropriate Care and Activities
- ECE 3435: Toddlers: Stages of Growth and Development & Developmentally Appropriate Care and Activities
- ECE 3575: International Approaches to Early Care and Learning
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II

- ITEC 3100: Improving Learning with Technology in Elementary Classrooms

Professional Education Requirements (40 Credit Hours)

- ECE 3420: Observation and Supervised Practice Teaching - Infants
- ECE 3445: Observation and Supervised Practice Teaching - Toddlers
- ECE 4305: Motor Development and Refined Control of Movement
- ECE 4310: A Conceptual Framework for the Montessori System of Education
- ECE 4315: Sensorial Development
- ECE 4335: Acquisition of Language and Literacy Skills in One or More Languages
- ECE 4336: The Competent Manufacture and Presentation of Language Materials
- ECE 4345: Preparing the Mathematical Mind of the Young Child
- ECE 4320: Observation and Supervised Internship - Early Childhood I
- ECE 4355: Observation and Supervised Internship - Early Childhood

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Elementary and Early Childhood Education B.S.

Bachelor of Science Degree

Leading to Certification for Grades P-5

*Bagwell College of Education, Department of Elementary & Early Childhood Education
(470) 578-6121*

<http://bagwell.kennesaw.edu/departments/eece>.

This broad-field program is designed to prepare teachers of young children and leads to certification for pre-kindergarten to grade five in Georgia. The cross-disciplinary nature of the program's course requirements, with special emphasis on content studies in mathematics and reading, corresponds to the broad and integrated nature of teaching in the elementary grades and the fundamental importance of developing the reading and mathematical skills of young learners. The program provides candidates with an understanding of developmentally appropriate practices and an awareness of and sensitivity to cultural diversity and individual differences among young learners.

Admission to teacher education is separate from admission to Kennesaw State University. Candidates typically apply for admission to Teacher Education as sophomores after having completed most of their general education requirements. Applications for admission to Teacher Education should be submitted online through Owl Express under the "Student Services" menu.

A criminal history background check will be performed prior to admission to Teacher Education. In addition, if determined by the background check that a student is a multi-state offender, the student will be required to pay a fee and be fingerprinted. Results of either the criminal history background check and/or fingerprinting may preclude admission to teacher education. For more information on the criminal history process, students should contact the

Center for Education Placements and Partnerships (CEPP).

In order to be considered for admission to teacher education programs, candidates must have completed the following requirements:

1. Coursework:

- At least 45 semester hours of accredited college coursework.
- ENGL 1101 and 1102 with grades of "C" or better.
- EDUC 2110* with a grade of "C" or better, a satisfactory field experience evaluation, and recommendation from the EDUC 2110 instructor. (Students with transfer credit for EDUC 2110 must provide their own Supplemental Teacher Recommendation.)

*or provide proof of credit from an approved Georgia Pathways Program

2. GPA requirements:

- Achieved a minimum, adjusted or cumulative GPA of 2.75 for all coursework completed at Kennesaw State University. However, only candidates who have earned a KSU adjusted or cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. Students with a 2.75-2.99 GPA will be admitted on a case-by-case basis.
- Transfer students with a cumulative transfer GPA (as used by KSU Admissions) may be considered for teacher education admission their first semester at KSU. Only candidates who have achieved a transfer cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. After their first semester at KSU without teacher education admission, transfer students will be required to earn a cumulative or adjusted KSU GPA as explained above.
- No grade lower than "C" in Lower Division Major and Teaching Field courses as required by the programs in teacher education.

3. Register with the Georgia Professional Standards Commission to obtain a MyPSC account and PSC identification number.

4. Entrance exams requirements:

- Pass or exempt* the GACE Program Admission Assessment Tests (200, 201 & 202 or combined test 700) regardless of matriculation date.
- Complete the Georgia Educator Ethics - Program Entry exam (350).

5. Some degree programs in teacher education have additional admissions requirements. It is the student's responsibility to consult those departments and program advisors.

* The GACE Program Admission Assessment tests are comprehensive exams covering reading, writing, and mathematics. Regardless of matriculation date, the GACE Program Admission Assessment tests are a requirement for entrance into the Teacher Education Program at Kennesaw State University. Candidates should plan to take the tests prior to applying to the Teacher Education Program. Students with the following minimum scores on Collegiate SAT, ACT or GRE examinations may exempt GACE Program: Admission Assessment by submitting proof of scores to the Certification Officer located in the William D. Impey Teacher Education Advisement Center, located in Education Student Services (ESS):

- SAT: at least 1000 (Critical Reading and Mathematics)
- ACT: at least 43 (English and Mathematics)
- GRE: at least 1030 (Verbal and Quantitative)
- at least 297 (Verbal and Quantitative) 08/01/2011 and after

Candidates who believe they qualify for this exemption should see the Certification Officer in the William D. Impey Teacher Education Advisement Center, located in Education Student Services (ESS) to establish and record the exemption. The center can also provide further information concerning the GACE Program Admission at (470) 578-6105.

Any supporting documents (i.e. SAT or ACT exemption scores or Supplemental Teacher Recommendations) must be submitted to the William D. Impey Teacher Education Advisement Center (located in ESS) on or before the following deadlines:

Admission to Teacher Education Program for

- Fall Semester - 1st day of Spring
- Summer - Final Grades Due Date
- Spring Semester - 1st day of Fall
- Fall - final Grades Due Date

Applicants will be reviewed by ESS and by the Admission and Academic Standing Committee of the applicant's proposed degree program. All candidates who have met the requirements outlined above will be considered for admission. Only candidates who have achieved an adjusted GPA of 3.0 or higher will be guaranteed a place in their teacher education program of choice.

Candidates who have been denied admission must remove deficiencies within three semesters of the initial application for admission in order to be eligible for reconsideration for entry into a teacher education program.

Candidates will be informed of their admission status by email to their Kennesaw State University Student email account. Candidates must enroll in the semester for which they have been admitted, or they must re-apply and meet the admission requirements for a subsequent semester. KSU will request that teacher education candidates be issued a Pre-Service Certificate by the Georgia Professional Standards Commission (PSC). To be eligible for this certificate, candidates must:

- Submit a complete PSC Pre-Service Certification application packet.
- Be enrolled in an educator preparation program leading to initial certification.
- Have a successful background check (conducted prior to application).
- Complete PSC GACE Ethics Entry Exam (test code 350).
- Verify enrollment in a KSU educator preparation program through personal MyPSC account.

A Pre-Service Certificate is required to participate in field experiences associated with courses required in teacher education programs.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning
- MATH 2008: Foundations of Numbers and Operations
- ISCI 2001: Life and Earth Science
- ISCI 2002: Physical Science

Major Required Core Courses (33 Credit Hours)

- MUED 3340: Music for Early and Middle Grades
- ARED 3309: Visual Art for Early & Middle Grades
- HPE 3670: Early Childhood Health and Physical Education for the Classroom Teacher
- MATH 3316: Rational Numbers and Proportional Reasoning for Elementary Teachers
- MATH 3317: Geometry and Measurement for Elementary Teachers
- ECE 3313: Preschool Curriculum and Assessment
- ECE 3320: Teaching Reading and Writing in the Elementary Grades PK-2
- ECE 3330: Teaching Reading and Writing in the Elementary Grades 3-5
- ECE 3305: Classroom Assessment for Elementary Teachers
- ITEC 3100: Improving Learning with Technology in Elementary Classrooms
- INED 3304: Education of Exceptional Students
- ECE 2250: Child Development and Early Learning

Professional Education (P-5) Requirements (35 Credit Hours)

- INED 4482: Applied Linguistics for Teachers of K-5 English Learners
- INED 4483: Methods and Materials for Teaching ESOL in the K-5 Classroom
- ECE 4402: Teaching Science in Early Childhood Education
- ECE 4403: Teaching Social Studies in Early Childhood Education
- ECE 4408: Teaching Mathematics in Grades P-2
- ECE 4409: Teaching Mathematics in Grades 3-5
- ECE 4410: Reading and Writing Across the Curriculum
- ECE 4475: Designing and Sustaining a Classroom Learning Community
- ECE 4650: Yearlong Clinical Experience I (P-5)
- ECE 4660: Yearlong Clinical Experience II (P-5)
- EDUC 4610: Introduction to the Yearlong Clinical Experience

Program Total (128 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (131 credit hours)

ESOL (English to Speakers of Other Languages) Endorsement (B.S. in Elementary & Early Childhood Education)

The ESOL (English to Speakers of Other Languages) Endorsement is embedded in the B.S. in Elementary and Early Childhood Education. Preservice candidates enrolled in the B.S. program take two courses taught by TESOL faculty (INED 4482 (Applied Linguistics for Teachers of K-5 English Learners) and INED 4483 (Methods and Materials for Teaching ESOL in the K-5 Classroom). Additionally, cultural issues objectives are embedded throughout the program of study. In order to receive the endorsement, candidates must receive a "B" in INED 4482 & INED 4483 AND a score of 3 (meets) or higher on each criterion of the performance based Key Assessments.

Required Courses

- INED 4482: Applied Linguistics for Teachers of K-5 English Learners
- INED 4483: Methods and Materials for Teaching ESOL in the K-5 Classroom

Middle Grades Education, B.S. (Language Arts, Mathematics, Science, Reading, and Social Studies Concentrations)

*Bachelor of Science Degree
Leading to Certification for Grades 4 – 8
Bagwell College of Education,
Department of Secondary and Middle Grades Education
(470) 578-6314
<https://education.kennesaw.edu/middleed/>*

The B.S. in Middle Grades Education is designed to prepare effective teachers for learners in the middle school (grades 4 through 8). It leads to grades 4-8 teacher certification in Georgia. Candidates prepare in two of the five middle grades curriculum areas (mathematics, science, social studies, language arts, or reading). Preparation in the two teaching fields selected is more in-depth than the content requirements of the program for early childhood educators, but less extensive and less specialized than the requirements of programs for secondary educators. The integrated nature of the curriculum and the importance of team teaching strategies are emphasized. Please see the Bagwell College of Education and EPP pages for policies relevant to all education programs.

Admission to teacher education is separate from admission to Kennesaw State University. Candidates typically apply for admission to Teacher Education as sophomores after having completed most of their general education requirements. Applications for admission to Teacher Education should be submitted online through Owl Express under the "Student Services" menu.

In order to be considered for admission to teacher education programs, candidates must have completed the following requirements:

I. Coursework:

- At least 45 semester hours of accredited college coursework.
- ENGL 1101 and 1102 with grades of "C" or better.
- EDUC 2110* with a grade of "C" or better, a satisfactory field experience evaluation, and recommendation from the EDUC 2110 instructor.
- *or provide proof of credit from an approved Georgia Pathways Program

2. GPA requirements:

- Achieved a minimum, adjusted or cumulative GPA of 2.75 for all coursework completed at Kennesaw State University. However, only candidates who have earned a KSU adjusted or cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. Students with a 2.75-2.99 GPA will be admitted on a case-by-case basis.
- Transfer students with a cumulative transfer GPA (as used by KSU Admissions) may be considered for teacher education admission their first semester at KSU. Only candidates who have achieved a transfer cumulative GPA of 3.00 or higher will be guaranteed admission when all other admission requirements have been met. After their first semester at KSU without teacher education admission, transfer students will be required to earn a cumulative or adjusted KSU GPA as explained above.

3. Register with the Georgia Professional Standards Commission to obtain a MyPSC account and PSC identification number.

4. Entrance exams requirements:

- Pass or exempt* the GACE Program Admission Assessment Tests (200, 201 & 202 or combined test 700) regardless of matriculation date.
- Complete the Georgia Educator Ethics - Program Entry exam (350).

5. Some degree programs in teacher education have additional admissions requirements. It is the student's responsibility to consult those departments and program advisors.

* The GACE Program Admission Assessment tests are comprehensive exams covering reading, writing, and mathematics. Regardless of matriculation date, the GACE Program Admission Assessment tests are a requirement for entrance into the Teacher Education Program at Kennesaw State University. Candidates should plan to take the tests prior to applying to the Teacher Education Program. Students with the following minimum scores on Collegiate SAT, ACT or GRE examinations may exempt GACE Program Admission Assessment by submitting proof of scores to the Certification Officer located in the William D. Impey Teacher Education Advisement Center, located in Education Student Services (ESS):

- SAT: at least 1000 (Critical Reading and Mathematics)
- ACT: at least 43 (English and Mathematics)
- GRE: at least 1030 (Verbal and Quantitative)
- at least 297 (Verbal and Quantitative) 08/01/2011 and after

Candidates who believe they qualify for this exemption should see the Certification Officer in the William D. Impey Teacher Education Advisement Center, located in Education Student

Services (ESS) to establish and record the exemption. The center can also provide further information concerning the GACE Program Admission at (470) 578-6105.

Any supporting documents (i.e. SAT or ACT exemption scores or Supplemental Teacher Recommendations) must be submitted to the William D. Impey Teacher Education Advisement Center (located in ESS) on or before the following deadlines:

Admission to Teacher Education Program for

- Fall Semester - 1st day of Spring
- Summer - Final Grades Due Date
- Spring Semester - 1st day of Fall
- Fall - final Grades Due Date

Applicants will be reviewed by ESS and by the Admission and Academic Standing Committee of the applicant's proposed degree program. All candidates who have met the requirements outlined above will be considered for admission. Only candidates who have achieved an adjusted GPA of 3.0 or higher will be guaranteed a place in their teacher education program of choice.

Candidates who have been denied admission must remove deficiencies within three semesters of the initial application for admission in order to be eligible for reconsideration for entry into a teacher education program.

Candidates will be informed of their admission status by email to their Kennesaw State University Student email account. Candidates must enroll in the semester for which they have been admitted, or they must re-apply and meet the admission requirements for a subsequent semester. KSU will request that teacher education candidates be issued a Pre-Service Certificate by the Georgia Professional Standards Commission (PSC). To be eligible for this certificate, candidates must

- Complete PSC GACE Ethics Entry Exam (test code 350).
- Verify enrollment in a KSU educator preparation program through personal MyPSC account.
- Submit a complete PSC Pre-Service Certification application packet.
- Be enrolled in an educator preparation program leading to initial certification.
- Have a successful background check.

A Pre-Service Certificate is required to participate in field experiences associated with courses required in teacher education programs.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education recommendations for this major

Students whose content concentration area is Math or Science should take MATH 1112, College Trigonometry or MATH 1113, Pre-Calculus as part of their General Education requirement. All middle grades majors should take STAT 1107.

Students should take:

- SCI 1101: Science, Society, and the Environment I
- SCI 1102: Science, Society and the Environment II

Lower Division Major Requirements (Area F) (18 Credit Hours)

*MGE majors should take sections of EDUC 2110 and EDUC 2120 that are designated as MGE/SEC/P-12-focused sections in Owl Express. MGE majors must complete at least three hours of study in one of their chosen teaching field areas and six hours of study in the other. Please see required courses under Teaching Field Requirements.

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning

Teaching Field Requirements (24-25 Credit Hours)

Must complete at least 18 hours of coursework in a primary content area and at least 15 hours of coursework in a secondary content area chosen from the following five teaching field concentrations. Those majoring in science must take 18 hours of science courses due to labs.

I. Mathematics (16 Credit Hours)

Candidates should take MATH 1112 - College Trigonometry or MATH 1113 - Precalculus and MATH 1107 - Statistics as part of their General Education requirements.

- MATH 1190: Calculus I
- MATH 3295: Mathematics for Middle Grades and Secondary Teachers
- MATH 3390: Introduction to Mathematical Systems
- MATH 3395: Geometric Proofs and Applications
- MATH 3495: Advanced Perspectives on School Mathematics I

Electives:

If math is your primary content area, take:

- MAED 3475: Historical and Modern Approaches to Mathematics

2. Science (18 Credit Hours)

Candidates should take MATH 1112 - College Trigonometry or MATH 1113 - Precalculus and MATH 1107 - Statistics as part of their General Education requirements. All science classes listed below are required.

- SCI 3360: Earth Science
- ASTR 1000K: Introduction to the Universe
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- EDSM 3000K: Survey of Life Science
- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I

- Social Studies (15 Credit Hours)
- GEOG 1130: World Regional Geography
- HIST 2111: United States History to 1877
- HIST 3304: History of Georgia

Electives (6-9 Credit Hours):

Select two from the following if social studies is your secondary content area or three if it is your primary area.

- HIST 2206: Origins of Great Traditions
- HIST 3305: The World Since 1945
- HIST 3366: History of Mexico and Central America
- HIST 3367: History of Brazil
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3382: North Africa and Middle East in Modern Times
- HIST 3391: History of West Africa
- HIST 3392: History of Southern, Eastern and Central Africa
- HIST 4391: Emerging Themes in African History
- GEOG 3312: Geography of Europe
- GEOG 3340: Cultural Geography
- GEOG 3350: Geography of Sub-Saharan Africa
- GEOG 3360: Geography of Asia
- GEOG 3370: Geography of Latin America and the Caribbean
- GEOG 3380: Geography of North America

3. Language Arts (15 Credit Hours)

- ENGL 2271: Introduction to Teaching English Language Arts
- LING 3035: Introduction to Language and Linguistics
- ENGL 3250: Teaching Writing in Middle Grades Language Arts
- ENGL 3270: Teaching Grammar and Usage in Middle Grades Language Arts
- ENGL 3390: Great Works for Middle Grades Teachers

Electives

Choose one for 3 more hours if Language Arts is your primary content area.

- ENGL 2160: American Literature Survey
- ENGL 2172: British Literature, Beginnings to 1660
- ENGL 2174: British Literature, 1660 to Present
- ENGL 3330: Gender Studies
- ENGL 3350: Regional Literature
- ENGL 3360: Major African American Writers
- ENGL 3400: Survey of African Literatures
- ENGL 3500: Topics in African American Literature
- EDRD 4409: Young Adult Literature: Cross-Curricular Approaches for

- Diverse Learners
- Reading (15 hours)

Reading can be selected only as the secondary content area.

Required:

- EDRD 3320: Understanding the Reader and the Reading Process
- EDRD 3350: Integrated Reading/Writing Instruction in the Middle Grades
- EDRD 4409: Young Adult Literature: Cross-Curricular Approaches for Diverse Learners
- EDRD 441 I: Reading Diagnostics for Teachers of Adolescents

Electives:

Choose one of the following courses:

- EDRD 3360: Introduction to New Literacies
- INED 4430: Applied Linguistics and English Language Literacy

Professional Education (4-8) Requirements (40 Credit Hours)

Must be admitted to Teacher Education Program before taking these courses. Blocks I-IV must be completed in order.

Block I (courses to be taken concurrently)

- EDMG 3300: Success in the Middle: Adolescent Development and Middle School Advocacy
- EDRD 3330: Methods and Materials for Middle Grades Content Area Reading and Writing

Block II (courses to be taken concurrently)

- EDMG 3350: Planning, Instruction, and Assessment in the Middle Grades
- EDMG 3360: Classroom Management in the Middle Grades
- ITEC 3200: Improving Learning with Technology in Middle Grade Classrooms

Block III. (courses to be taken concurrently)

Application required for admission to the Yearlong Clinical Experience.

- EDUC 4610: Introduction to the Yearlong Clinical Experience
- EDMG 4650: Yearlong Clinical Experience I
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 4435: Foundations of Teaching Adolescent English Learners

* In Block III, take two, 3-hour courses corresponding to the selected areas of Teaching Field Concentration:

- EDMG 4401: Teaching Mathematics in Middle Grades
- EDMG 4402: Teaching Science in Middle Grades

- EDMG 4403: Teaching Social Studies in Middle Grades
- EDMG 4404: Teaching Language Arts in Middle Grades
- EDMG 4408: Teaching Reading in the Middle Grades

Block IV. (courses to be taken concurrently)

- EDMG 4411: Seminar in Middle Grades Education
- EDMG 4660: Yearlong Clinical Experience II
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- INED 4436: Foundations of Teaching Adolescent English Learners II

Program Total (128-129 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

WellStar College of Health and Human Services

Child Advocacy Studies Certificate - Embedded

WellStar College of Health and Human Services

Social Work and Human Services Department

(470) 578-6630

<http://wellstarcollege.edu/swhs>

The Child Advocacy Studies curriculum focuses on experiential, interdisciplinary, ethical, and culturally sensitive content that provides professionals working with children a common knowledge base for responding to child maltreatment. This program concentrates on developing students' understanding of the numerous factors that lead to child maltreatment and existing responses to child maltreatment. The goal is to prepare students to work effectively within systems and institutions that respond to these incidents. Students will learn about the various disciplinary responses to child maltreatment and develop a multidisciplinary understanding of the most effective responses. Students completing the courses in this program will be better equipped to carry out the work of agencies and systems (health care, criminal justice, and social services) as they advocate on behalf of the needs of children as victims and survivors of child abuse.

Students may apply to the certificate program after completing the first course (HS 3950 Perspectives on Child Maltreatment and Child Advocacy) and prior to the final semester in the student's major. Admission requirements for the undergraduate certificate include: completion of general education requirements and required prerequisites; minimum GPA of 3.0 in all human service coursework (including field placements); statement regarding interest in certificate and proposed career goals; two reference letters (either academic or related work/internship experience); and completed fingerprint/background check (fee assumed by student). In addition, students need to have completed HS 3300, PSYC 3305, or have permission of the department to take HS 3950. Please note that HS 3950 is a prerequisite for HS 3960.

Required Courses (9 Credit Hours)

For HS Majors

- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- HS 4950: Advanced Internship for Human Services Professionals

For Non-HS Majors

- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- Approved practicum in department major or select an additional approved elective

Elective (3 Credit Hours)

Undergraduate students may select one from the following recommended concentration electives:

- HS 3900: Dynamics of Family Violence
- HS 4600: Working with Children and Youth
- CRJU 4430: Victimology
- PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective

Program Total (12 Credit Hours)

Coaching Minor

Contact: Ms. Susan Whitlock, Minor Program Coordinator

Department of Health Promotion and Physical Education

(470) 578-6216

<http://wellstarcollege.kennesaw.edu/hpe/>

The Coaching Minor is offered through the Department of Health Promotion and Physical Education. It is designed to prepare future coaches for leadership in a variety of sport settings. The minor includes three (3) foundational classes, along with a minimum of two additional advanced level sport-specific classes in coaching methodology, plus one practicum experience.

Students must have a 2.5 GPA in Coaching Minor coursework to be eligible for the coaching practicum.

Required Courses:

- HPE 2300: First Aid/CPR Instructor Training
- HPE 3050: Coaching Principles
- HPE 3100: Behavioral and Psychological Aspects of Physical Education and Coaching
- HPE 3395: Coaching Practicum

Select 2 of the following 5 courses:

- HPE 3055: Advanced Coaching Methods for Basketball
- HPE 3065: Advanced Coaching Methods for Soccer
- HPE 3075: Advanced Coaching Methods for Softball
- HPE 3085: Advanced Coaching Methods for Tennis
- HPE 3090: Advanced Coaching Methods for Strength and Conditioning
- HPE 3095: Advanced Coaching Methods for Volleyball

Program Total (18 Credit Hours)

Exercise Science B.S.

Contact: Dr. Tiffany Esmat, ES Program Coordinator

Bachelor of Science Degree

WellStar College of Health and Human Services
Department of Exercise Science and Sport Management
(470) 578-7600
<http://wellstarcollege.kennesaw.edu/essml>

The Exercise Science program is a scientifically-based program designed to prepare competent entry-level Exercise Science professionals in the cognitive (knowledge), psychomotor (skills), and affective (abilities) learning domains. The Exercise Science program offers a diversified program that includes both introductory and advanced coursework, laboratory experiences and the opportunity for practical application of knowledge through community and research-based experiences. The program can also be used as pre-professional preparation for post graduate study in exercise science or other health related disciplines including physical therapy, occupational therapy and medical programs. The Exercise Science program is designed to prepare students for appropriate professional organization certifications. For information regarding program admission, please contact the Wellstar College of Health and Human Services Advising Center at <http://wellstarcollege.kennesaw.edu/advising>.

Program Admission and Retention Criteria

In order to declare the Exercise Science major, students must meet the following requirements:

1. Must have met Kennesaw State University admission requirements.
2. Must have an institutional GPA of 2.75 or better
3. Applicants must have a 3.0 cumulative grade point average with a minimum grade of "C" in each required course for admission including BIOL 2221, BIOL 2221L, BIOL 2222, BIOL 2222L, CHEM 1211, CHEM 1211L, CHEM 1212, CHEM 1212L, ES 2100. No more than two attempts will be allowed to earn the degree.
4. Admitted students must earn a grade of "C" or better in each required course within the Exercise Science curriculum of which only two attempts will be allowed to earn the degree.
5. Candidates must complete and submit a program application by the stated deadline. Information regarding the application process can be obtained from the Wellstar College of Health and Human Services Advising Center.
6. CHEM 1211/L and CHEM 1212/L may either be used in General Education Area D or in Major Field Electives.

General Education (42 Credit Hours)

See listing of requirements.

General Education Requirements Specific to this Major:

- MATH 1112 or higher
- CHEM 1211 & CHEM 1212/L

Lower Division Major Requirements (Area F) (18 Credit Hours)

- BIOL 2221: Human Anatomy & Physiology I

- BIOL 2221L: Human Anatomy & Physiology I Laboratory
- BIOL 2222: Human Anatomy & Physiology II
- BIOL 2222L: Human Anatomy & Physiology II Laboratory
- ES 2100: Physical Activity in Health and Disease
- ES 2200: Safety Training for the Fitness Professional
- ES 2300: Medical Terminology
- ES 2500: Principles of Nutrition

Upper Division Major Requirements

Exercise Science Core (32 Credit Hours)

- ES 3600: Health Fitness Management
- ES 3700: Strength and Conditioning
- ES 3750: Strength and Conditioning Laboratory
- ES 3800: Biomechanics
- ES 3900: Physiology of Exercise
- ES 4200: Nutrition and Performance
- ES 4300: Physiology of Exercise and Aging
- ES 4500: Physiology of Exercise II
- ES 4550: Exercise Science Laboratory Techniques
- ES 4600: Exercise Prescription
- ES 4650: Exercise Testing
- ES 4700: Clinical Exercise Physiology

Capstone Experience (1 Credit Hour)

- ES 4900: Exercise Science Senior Seminar

Major Field Electives (15 Credit Hours)

Select 15 credit hours of BIOL, CHEM, ES, HPE, PHYS, PSYC, SM. 6 credit hours must be at the 3000-4000 level.

Free Electives (12 Credit Hours)

Any course in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements. Exercise Science majors may substitute ES 2100 for WELL 1000.

Graduation Credit Hour Total (123 Credit Hours)

Health and Physical Education (P-12) B.S.

Contact: Dr. Peter St. Pierre, HPE Program Coordinator

Bachelor of Science Degree

Leading to Certification for Grades P-12

WellStar College of Health and Human Services,

Department of Health Promotion and Physical Education

(470) 578-6216

<http://wellstarcollege.kennesaw.edu/hpe/>

The B.S. in Health & Physical Education is fully accredited by NCATE, National Council for Accreditation of Teacher Education, fully approved by Georgia's Professional Standards Commission for P-12 teacher certification, and nationally recognized by NASPE, the National Association for Sport & Physical Education.

This single field program is designed to prepare health and physical education teachers at all grade levels (pre-kindergarten through grade 12). Candidates complete the equivalent of a major in health and physical education and a second major in pedagogical studies with an emphasis on teaching health and physical education.

A complete listing of Health and Physical Education (P-12) program admission requirements can be found at: <http://wellstarcollege.kennesaw.edu/hpe/>.

General Education (42 Credit Hours)

See listing of requirements.

General Education Requirements for this Major

- STAT 1107: Introduction to Statistics

Lower Division Major Requirements (Area F) (18 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- HPE 2000: Contemporary and Historical Perspectives of Health and Physical Education
- HPE 2050: Fundamentals of Teaching Health and Physical Education
- HPE 2140: Youth Fitness Development and Assessment
- HPE 2250: Functional Anatomy and Physiology for Health and Physical Education
- HPE 2300: First Aid/CPR Instructor Training

Teaching Field Requirements (19 Credit Hours)

HPE Core

- HPE 3100: Behavioral and Psychological Aspects of Physical Education and Coaching
- HPE 3200: Motor Learning and Development
- HPE 3250: Family Health and Sexuality
- HPE 3300: Contemporary Health Issues
- HPE 3600: Child and Adolescent Health Issues

- HPE 4340: Applied Kinesiology

HPE Professional Skills (8 Credit Hours)

- HPE 1140: Educational Dance and Gymnastics
- HPE 1560: Introduction to Invasion Target Game Forms
- HPE 1580: Introduction to Striking/Fielding and Net/Wall Game Forms
- HPE 1900: Adventure Education and Facilitation

Professional Education (P-12) Requirements (40 Credit Hours)

- EDUC 2120: Sociocultural Influences on Teaching and Learning
- EDUC 2130: Exploring Teaching and Learning
- HPE 3450: Curriculum, Instruction & Management for Early Childhood Physical Education
- HPE 3550: Curriculum, Instruction and Management for Middle Grade and Secondary Physical Education
- HPE 3650: Curriculum, Methods and Materials in Health Education
- HPE 3750: Adapted Physical Education
- HPE 4252: Measurement and Evaluation in HPE
- INED 4437: Education for Linguistically Diverse Students
- ITEC 3300: Improving Learning with Technology in High School Classrooms
- HPE 4410: Practicum in Children's Health and Physical Education
- HPE 4430: Practicum in Middle and Secondary School Health and Physical Education
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- HPE 4650: Yearlong Clinical Experience I
- HPE 4660: Yearlong Clinical Experience II

Program Total (127 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (130 Credit Hours)

Human Services B.S.

Bachelor of Science Degree

WellStar College of Health and Human Services, Department of Social Work and Human Services

(470) 578-6630

The vision for the Department of Social Work and Human Services is to prepare engaged, innovative professionals and global citizens who are educated to enrich the lives of individuals and families and to enhance the quality of communities. The Department's mission is to educate

culturally competent professionals to develop and deliver high quality human services locally, regionally and globally, to improve the quality of life of those they serve. The Department's mission evolves from its core values that are derived from the values of the University, the National Association of Social Workers, the National Organization for Human Services (NOHS), and the Nonprofit Leadership Alliance (NLA). These values include academic excellence, quality teaching, student-centered, service, human relationships, social justice, the dignity and worth of the individual, client and community well-being, client participation, self-determination and confidentiality, promotion of ethical standards, integrity, competency, continuous examination and critique of the profession, and professional growth.

The Human Services (HS) program specifically prepares students to pursue careers in the field of human services in a variety of public, nonprofit, and private human service organizations. Students may choose a concentration either in (a) case management or (b) nonprofit management. All Human Services majors graduate with competencies in communication, assessment, advocacy, documentation, community networking, cultural competence, social policy, civic engagement, and professional/career development. These competencies are established by the established by the Council for Standards in Human Service Education (CSHSE).

Human Services majors must complete two internships in the program. The foundation internship requires students to demonstrate knowledge, attitudes, and skills acquired in lower-level major courses by completing assignments and experiences in both micro and macro level practice. Students then complete an advanced internship with a focus on the competencies of their chosen concentration.

The students in the case management concentration focus on the ability to integrate knowledge and skills related to direct practice with individuals, families, children, and groups. In addition, they are prepared to work in crisis intervention settings. Students who select the nonprofit management concentration develop management, leadership, and administrative competencies to work in nonprofit organizations. All human services majors graduate with competencies in communication, assessment, advocacy, documentation, community networking, cultural competence, social policy, civic engagement, and professional/career development. These competencies are established by the established by the Council for Standards in Human Service Education (CSHSE). Graduates from the HS program may qualify to take the Human Service Board Certified Practitioner (HS-BCP) exam for becoming a Human Service Board Certified Practitioner (HS-BCP). For additional information regarding the HS-BCP, please contact the Human Services Program Coordinator.

The Human Services program also supports two certificates: the Nonprofit Management and Leadership (NLA) Certification and the Child Advocacy Studies Training (CAST).

The Nonprofit Management and Leadership Certificate program prepares students for employment, volunteer and leadership experiences in the nonprofit sector. The program requires students to demonstrate ten core management and leadership competency areas. Students interested in this certificate may enroll by contacting the NLA Campus Executive Director and completing the online application available at www.kennesaw.edu/chhs/swhs. Completion of the certificate's requirements result in students receiving national certification and credentialing, (i.e., Certified Nonprofit Practitioner (CNP) by the Nonprofit Leadership Alliance).

Students interested in the HS major may also choose to participate in the Child Advocacy Studies Training (CAST) Certificate program. Interested students must contact the CAST Coordinator in the Department of Social Work and Human Services. This program focuses on developing students' understanding of the various factors that lead to child maltreatment, and of various existing responses to incidents of child maltreatment to enable them to work more effectively within various systems and institutions that respond to these incidents. Students completing the courses in this certificate will be competent to work within children-focused agencies and systems (health care, criminal justice, social services) while advocating for children who have survived neglect and abuse.

Human Services Program Admission Requirements

In order to be accepted into the undergraduate Human Services Degree Program, a student must have:

- A minimum institutional GPA of 2.80
- Completion of the following classes with a grade of "C" greater:
 - ◊ ENGL 1101 Composition I or ENGL 1102 Composition II,
 - ◊ MATH 1107 Introduction to Statistics,
 - ◊ ECON 1000 Contemporary Economic Issues,
 - ◊ PSYC 1101 Introduction to General Psychology or POLS 1101 American Government,
 - ◊ SOCI 1101 Introduction to Sociology, and
 - ◊ HS 2100 Overview of Human Services, HS 2200 Fundamentals of Nonprofit Organizations, HS 2300 Cultural Competence, and HS 2400 Interviewing Skills for Human Services,

After completing the above criteria for acceptance, a student may apply to the Human Services major by submitting an online application to the HS program found on the SWHS Department homepage. Applications are reviewed as they are submitted to the academic advisor.

Notes:

- Applicants will receive an e-mail response to their KSU email of acceptance or denial typically within two weeks of the online submission.
- Upon notification of acceptance to the major (by e-mail), students must complete the application requirements by scheduling an advisement session with the HS academic advisor.
- Upon denial of acceptance to the major (by e-mail), students are encouraged to meet with the HS academic advisor, if desired, to review reason for denial and develop a plan in order to be eligible to reapply to the major.

Retention and Progression to Graduation Policies

Good Standing in the Human Services Program:

To remain in good academic standing with the program, Human Services majors are required to:

- Maintain minimum institutional GPA of 2.8 or higher
- The Academic Advisor will review the GPAs of majors after grades are submitted each

semester. Failure to maintain the minimum institutional GPA will result in the student receiving an Academic Progression Warning.

Human Service Academic Progression Warning:

When the adjusted GPA of a Human Services student drops below the minimum institutional GPA of 2.8, the following will occur:

- Human Services student in the program will receive an e-mail from the Human Services Program Coordinator to their KSU student e-mail stating their program status is moved to "academic progression warning" status.
- Human Services student in the program will have two consecutive semesters from the time of warning to bring his/her adjusted GPA to the required 2.8 or higher.
- Upon notification of the "academic progression warning," Human Services student in the program should:
 1. Meet with the Human Services academic advisor and his/her faculty mentor within two weeks of notification; and
 2. Develop a written remediation plan in collaboration with the Human Services academic advisor and faculty mentor (a signed copy is provided to the student).

Human Services majors on "academic progression warning" should meet at least a couple of times a semester with the Human Services academic advisor and faculty mentor to discuss progress on the remediation plan and to determine if any additional actions are needed. At the conclusion of the two-semester "academic progression warning" period, the student's academic record will be reassessed by the Human Services academic advisor and Human Services Program Coordinator to determine if the student can continue within the program.

Dismissal from Human Services Major:

A Human Services major, failing to bring his/her GPA to 2.8 after the second consecutive semester on "academic progression warning," will be dismissed from the Human Services program.

Reinstatement After Dismissal:

Students dismissed from the major may reapply for the major after two semesters from time of dismissal. (s)he must reapply to the Human Services program to be considered for reinstatement. Students reapplying for admission must meet the same requirements as required for first-time applicants to the program.

General Education (42 Credit Hours)

See list of requirements

Lower Division Major Requirements (Area F) (18 Credit Hours)

Module 1 for HS Case Management and HS Nonprofit Management Concentrations

- HS 2100: Overview of Human Services
- HS 2200: Fundamentals of Nonprofits
- HS 2300: Cultural Competence in the Human Services

- HS 2400: Interviewing Skills for the Helping Professions
- SOCI 1101: Introduction to Sociology
and
- POLS 2212: State and Local Government
or
- PSYC 1101: Introduction to General Psychology

Upper Division Major Requirements (42 Credit Hours)

For Case Management Concentration:

Module 2

- HS 2900: Working with Support Groups
- HS 3000: Foundation Internship
- HS 3100: Poverty and Culture
- HS 3200: Social Welfare Policy

Module 3

- HS 3300: Human Socialization
- HS 3400: Community Intervention
- HS 3500: Research Methods for the Human Services
- Major Concentration Elective (choose from list below)

Module 4

- HS 4500: Working with Families
- HS 4600: Working with Children and Youth
- HS 4700: Crisis Intervention
- Major Concentration Elective (choose from list below)

Module 5

- HS 4800: Ethics in the Helping Profession
- HS 4900: Capstone Seminar in Human Services
- HS 4950: Advanced Internship for Human Services Professionals

For Nonprofit Management Concentration:

Module 2

- HS 3000: Foundation Internship
- HS 3100: Poverty and Culture
- HS 3200: Social Welfare Policy
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits

Module 3

- HS 3300: Human Socialization
- HS 3400: Community Intervention
- HS 3500: Research Methods for the Human Services
- HS 3600: Program Development and Evaluation

Module 4

- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations
- Major Concentration Elective (choose from list below)

Module 5

- HS 4800: Ethics in the Helping Profession
- HS 4900: Capstone Seminar in Human Services
- HS 4950: Advanced Internship for Human Services Professionals

Concentration Electives (6 Credit Hours)

Choose two from the following courses that are not included in the student's concentration required courses:

- HS 3600: Program Development and Evaluation
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits
- HS 3700: Aging and the Family
- HS 3750: Death, Dying and Bereavement
- HS 3800: Social Entrepreneurship and Enterprise
- HS 3850: Introduction to Nongovernmental Organizations and Development
- HS 3900: Dynamics of Family Violence
- HS 3950: Perspectives on Child Maltreatment and Child Advocacy
- HS 3960: Professional and System Responses to Maltreatment
- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations
- HS 4300: Education Abroad in Human Services
- HS 4490: Special Topics in Human Services
- HS 4500: Working with Families
- HS 4600: Working with Children and Youth
- MGT 3100: Management and Behavioral Sciences
- POLS 3343: Principles of Public Administration
- SOCI 3304: Social Organization
- Cross-listed courses

Free Electives (12 Credit Hours)

Any four courses in the university curriculum (in consultation with the academic advisor).

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Nonprofit Management and Leadership Certificate - Stand-Alone and Embedded

*WellStar College of Health and Human Services,
Department of Social Work and Human Services
(470) 578-6630*

Through a partnership with the Nonprofit Leadership Alliance, a national collaborative of nonprofit, academic, and private partners, the Department of Social Work and Human Services offers an academic experience-based approach to preparing students for administrative and leadership roles in the growing nonprofit sector. Students must meet criteria for acceptance into the Nonprofit Leadership Alliance Certificate program (see Campus Executive Director). Completion of this Certificate's requirements result in students receiving national certification and credentialing (Certified Nonprofit Practitioner). Certificate program participants acquire an academic and on-the-job education in 10 core competencies: Communication, Marketing, & Public Relations; Cultural Competency & Diversity; Financial Resource Development and Management; Foundations and Management of the Nonprofit Sector; Governance, Leadership & Advocacy, Legal & Ethical Decision Making; Personal & Professional Development; Program Development; Volunteer & Human Resource Management; and the Future of the Nonprofit Sector.

Certification Requirements

Students must demonstrate completion of:

- Nonprofit Competencies: identified and validated by the nonprofit sector, the competencies outline the knowledge, skills, and abilities; needed to lead and manage a nonprofit organization;
- Internship Experience: 300-hour internship or professional employment with a nonprofit organization;
- Leadership and Service Activities: demonstrated community leadership skills in diverse situations;
- Management/Leadership Institute attendance; and
- Baccalaureate Degree or enrollment in a KSU major leading to a Baccalaureate Degree.

Qualifications

Interested students may enroll in this program by contacting the Campus Executive Director of the KSU Nonprofit Leadership Alliance who is housed in the Department of Social Work and Human Services and completing the online application available at

wellstarcollege.kennesaw.edu/swhs/. To qualify for the program, students must:

- Earn and be able to maintain an Institutional GPA of 3.0 or higher (or have earned a Bachelor's Degree from an accredited institution);
- Complete all General Education course requirements, unless the student already possesses an undergraduate degree from an accredited institution; and
- Complete the online application, which includes a 150-word personal statement describing his/her interest in the certificate program and how the certificate program will benefit his/her future career trajectory.

The National Nonprofit Leadership Alliance organization requires a direct payment of \$125.00 be made for affiliation, certification and credentialing.

Required Courses (18 Credit Hours)

- HS 2200: Fundamentals of Nonprofits
- HS 3650: Governance, Advocacy, and Leadership in Nonprofits
- HS 4100: Grant Writing and Fundraising
- HS 4200: Human Resources for Nonprofit Organizations
- HS 4950: Advanced Internship for Human Services Professionals

Note:

* HS 4950 Advanced Internship for Human Services Professionals may be substituted for non-degree seeking students with significant work experience or for non-Human Service majors enrolled in an equivalent course through the student's major degree program upon approval by the Campus Executive Director of the KSU Nonprofit Leadership Alliance Certificate Program.

* Students enrolling in HS 4950 should register for the nonprofit administration section

Elective Courses (6 Credit Hours)

Select two from the following (or two other courses with approval of the Campus Executive Director)

- HS 3600: Program Development and Evaluation
- HS 3800: Social Entrepreneurship and Enterprise
- HS 3850: Introduction to Nongovernmental Organizations and Development
- HS 4300: Education Abroad in Human Services
- HS 4490: Special Topics in Human Services
- MGT 3100: Management and Behavioral Sciences
- POLS 3343: Principles of Public Administration
- SOCI 3304: Social Organization
- MKTG 3100: Principles of Marketing

Program Total (24 Credit Hours)

Nursing B.S.N

Bachelor of Science in Nursing Degree
WellStar College of Health and Human Services
Baccalaureate Nursing Program
(470) 578-6061

The baccalaureate degree and master's degree in nursing at Kennesaw State University are accredited by the Commission on Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, 202-887-6791.

The purpose of the Bachelor of Science in Nursing is to prepare graduates for generalist nursing practice. Graduates will be prepared to practice with patients including individuals, families, groups, and populations across the lifespan and across the continuum of healthcare environments. Upon completion of this program graduates will:

1. Synthesize knowledge from a liberal education including social science, natural science, nursing science, and the art and ethics of caring as a foundation for providing holistic nursing care.
2. Implement competent, patient-centered care of individuals, families, groups, communities, and populations along the health-illness continuum and throughout the lifespan within multicultural environments.
3. Utilize leadership skills to critically examine and continuously improve healthcare delivery systems, with emphasis on safety, quality, and fiscal responsibility.
4. Analyze current research and apply conceptual/theoretical models for translating evidence into clinical practice.
5. Apply knowledge and skills in information management and patient care technology in the delivery of quality patient care.
6. Identify the significance of local, state, national, and global healthcare policies including financial and regulatory environments.
7. Demonstrate effective communication skills with an interdisciplinary healthcare team including collaboration, negotiation, and conflict management.
8. Employ principles of health promotion, and disease/injury prevention in providing care to individuals and populations.
9. Assume responsibility and accountability for professionalism, including lifelong learning, and the inherent values of altruism, autonomy, human dignity, integrity and social justice in the practice of nursing.

Admission Requirements

Nursing Program Admission Requirements

Requirements for students include:

1. Annual health history and physical exam
2. Immunizations and proof of immunity to specified communicable diseases as required by

clinical agencies

3. Annual tuberculosis screening (more frequently for some clinical agencies)
4. Health insurance
5. Certification in health care provider cardiopulmonary resuscitation by the American Heart Association
6. Uniforms (must be purchased from designated School of Nursing vendor), stethoscope, and a suitable watch.
7. An initial fee of approximately \$400.00 to cover the cost of achievement exams taken during the program, \$15 for professional liability insurance, and \$50 per semester for clinical lab fee.
8. Attend mandatory nursing orientation session prior to entry into the nursing program
9. Criminal background check and drug screen (cost incurred by student) must be conducted by vendor designated by the School of Nursing. Dismissal from the program may result if student is not capable of meeting clinical agency requirements for criminal background check and/or is found to have a positive drug screen.
10. Students' health records will be released to clinical agencies when requested for clinical credentialing. Students enrolled in clinical nursing courses who have not met the above requirements may be administratively withdrawn from courses.

Baccalaureate Program Admission Criteria

1. Must be admitted to Kennesaw State University and have a KSU ID and email address.
2. All nursing students must complete the Regent's requirements prior to admission to the nursing program.
3. The following prerequisite courses must be completed prior to beginning the Nursing program: ENGL 1101, ENGL 1102; MATH 1101 or MATH 1111, MATH 1107; CHEM 1151/1151L, CHEM 1152/1152L; BIOL 2221/2221L, BIOL 2222/2222L, BIOL 2261; PSYC 1101, PSYC 3305; and SOCI 1101 or SOCI 2105.
4. Applicants must complete seven of the prerequisite requirements to be considered for admission, and five of the seven must be math and natural science courses. Note: courses with lab component will be considered one prerequisite. Students will receive one calculated grade for the class and lab (weighting the course grade 75% and lab grade 25%).
5. Applicants must have a 3.0 cumulative grade point average with a minimum grade of "C" in each required science and mathematics course. In addition, an applicant who repeats two different natural science courses or repeats the same natural science course twice because of grades below "C" within the past 5 years will not be considered for admission to the program.
6. To be considered for admission, applicants must not have more than two withdrawals per

course from any prerequisite nursing courses on their academic transcripts.

7. Admission is a competitive process and will be based on a combination of grades received in prerequisite courses required in the program of study and the score received on the TEAS (Test of Essential Academic Skill) exam. Applicants must achieve a minimum of 78 on the TEAS exam and the cost is incurred by the student. The exam can be taken up to 2 times a year. Note: Due to high numbers of applicants, most students accepted have test scores and grade point averages well above the minimum requirements.
8. Applications for entry into the baccalaureate nursing sequence must be completed by published deadlines.
9. Decisions regarding admission into the nursing sequence and progression in the program will be made by a nursing admissions committee.
10. Students who were previously enrolled in a nursing program and not eligible to return to the former nursing program will not be eligible for admission to the KSU Nursing Program.
11. All applicants must be aware that the state examining board has the right to refuse to grant a registered nurse license to any individual regardless of educational credentials under circumstances of (1) falsification of application for licensure (2) conviction of a felony or crime of moral turpitude; other moral and legal violations specified in the Georgia law.

Transfer Credit for Nursing Courses

In order for any course to be considered for transfer credit, the nursing course must be from an accredited nursing program within the past two years and a grade of "B" or better, received in the course. Nursing courses older than two years will be considered only if the student has been out of the former program for two terms or less and was continuously enrolled in the former nursing program. A letter must be obtained from the School of Nursing Chair/Department Head stating that the student is eligible to return to the nursing program and is in good academic standing. Students who are not eligible to return to their former nursing program will not be able to apply to the nursing program. In addition, students will need to successfully complete a medication calculation test at 90% or better (limited to two attempts) and a nursing skills check-off (limited to three attempts) before beginning a clinical nursing course. Transfers will be considered only if there is an open available space in the Nursing Program.

Progression and Readmission within the Baccalaureate Nursing Program

Criteria for progression to the junior and senior year and graduation from the baccalaureate degree program are as follows:

1. Receive at least a "C" in all nursing, natural science and mathematics courses.
2. Maintain a cumulative GPA of 2.7.
3. A student may repeat only one nursing course (including BIOL 3317, Human Pathophysiology). A grade less than "C" in any two nursing courses will result in being dismissed from the program. Students who are dismissed are not eligible to reapply. Students must earn a minimum of "C" in each nursing course and BIOL 3317 (Human Pathophysiology) to progress.

4. If a student leaves the program temporarily, whether by choice or because of failure, readmission to the nursing sequence is not guaranteed. Eligible students who drop out of the nursing sequence for any reason will be readmitted to the sequence on a space-available basis. Students will be accommodated in rank order according to their GPA. Students interested in reentry must notify the director in writing of their interest. A student who has a cumulative GPA of less than 2.7 will not be considered for readmission. If a student has been on a leave from the nursing program for more than two calendar years, the student will need to reapply for admission to the program and repeat the entire sequence of required nursing courses.

Admission, Progression and Retention Decision Appeals

A formal appeal of a decision to deny admission, to delay progression, or to dismiss a student from the WellStar School of Nursing may be made to the Admissions, Progression and Retention Committee within 30 days of notification. Prior to an appeal, students are encouraged to meet with the Associate Director of the WSON for Undergraduate Programs or designee. The committee will review the student appeal, WSON academic and clinical history, and any exceptional or extenuating circumstances. The committee will notify the student of the decision in writing. If a student wishes to appeal the decision of the Admissions, Progression and Retention Committee, a formal appeal must be submitted in writing to the Director of the WellStar School of Nursing or designee within 30 days of receipt of notification of the Committee's decision. The decision of the Director is final.

The program of study in nursing offers the opportunity to obtain a BSN degree. After completion of the degree, and upon the recommendation of the chair, graduates will be eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX) to practice as a registered nurse (R.N.). All applicants must be aware that the state examining board has the right to refuse to grant a registered nurse license to any individual regardless of educational credentials under circumstances of (1) falsification of application for licensure (2) conviction of a felony or crime of moral turpitude; other moral and legal violations specified in the Georgia law.

Core Performance Standards

The WellStar College of Health and Human Services has adopted core performance standards for admission and progression within the nursing major. These standards identify the abilities and skills necessary to perform in an independent manner. If a student admitted to the program believes that he or she cannot meet one or more of the standards without accommodations or modifications, then the student should notify the Chair of the School of Nursing in writing. The nursing program will determine, on an individual basis, whether or not necessary accommodations or modifications can reasonably be made. Core performance standards for admission and progression are contained in the program application, which is available online or from the WellStar School of Nursing.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for This Major

In Area D:

- CHEM 1151: Survey of Chemistry I
- CHEM 1151L: Survey of Chemistry I Laboratory
- CHEM 1152: Survey of Chemistry II
- CHEM 1152L: Survey of Chemistry II Laboratory
- STAT 1107: Introduction to Statistics

Lower division major requirements (Area F) (18 Credit Hours)

- Directed or General Electives (3Credit Hours)
- BIOL 2221: Human Anatomy & Physiology I
- BIOL 2221L: Human Anatomy & Physiology I Laboratory
- BIOL 2222: Human Anatomy & Physiology II
- BIOL 2222L: Human Anatomy & Physiology II Laboratory
- BIOL 2261: Fundamental Microbiology
- BIOL 2261L: Fundamental Microbiology Laboratory
- PSYC 1101: Introduction to General Psychology

Pre-Licensure Students

Upper Division Major Requirements (57 Credit Hours)

- NURS 3209: Theoretical Basis for Holistic Nursing & Health
- NURS 3302: Professionalism and Ethics in Nursing
- NURS 3303: Clinical Pharmacology for Nurses
- NURS 3309: Health Assessment
- NURS 3313: Adult Health Nursing
- NURS 3314: Mental Health Nursing
- NURS 3318: Parent-Child Nursing
- NURS 4402: Nursing Research for Evidence-based Practice
- NURS 4412: Community Health Nursing
- NURS 4414: Complex Health Nursing
- NURS 4416: Leadership in Nursing
- NURS 4417: Advanced Clinical Practicum

Nursing Elective (3 Credit Hours)

- BIOL 3317: Pathophysiology
- PSYC 3305: Life-Span Developmental Psychology

Free Electives (3 Credit Hours)

Any course in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Public Health Education Minor

Contact: Dr. Jane Petrillo, Minor Program Coordinator
Department of Health Promotion and Physical Education
(470) 578-6216
<http://wellstar.kennesaw.edu/hpe/>

The Health Promotion minor is offered through the Department of Health Promotion and Physical Education and is based on the Seven Areas of Responsibility for an entry level health educator delineated by the National Commission for Health Education Credentialing (NCHEC). The Minor begins with four foundational courses followed by advanced content-specific elective courses and the opportunity to complete a health promotion practicum in a community setting. The Health Promotion minor:

- Prepares students with the knowledge and skills to design, implement, and evaluate health promotion programs.
- Focuses on improving quality of life and overall well-being of individuals, worksites, and communities through behavioral, policy, and environmental initiatives.
- Expands the credentials of students entering health related professions.

Minor Core (12 Credit Hours)

- PHE 2400: Behavior Theory and Applications
- PHE 3850: Fundamentals of Program Planning
- PHE 4500: Epidemiology
- PHE 4600: Program Implementation and Evaluation

Minor Electives (6 Credit Hours)

Choose 6 credit hours from the following:

- PHE 2900: Peer Health Education
- HPE 3250: Family Health and Sexuality
- HPE 3300: Contemporary Health Issues
- PHE 3400: Disease Prevention and Management
- HPE 3600: Child and Adolescent Health Issues
- PHE 4200: Introduction to Community and Worksite Health
- PHE 4300: Environmental Health Issues
- PHE 4490: Special Topics in Public Health Education
- PHE 4700: Advanced Internship
- Any KSU Directed Study course with content appropriate to Health Promotion*
- Any 3000- or 4000-level KSU course with content appropriate to Health Promotion*
- Any 3000- or 4000-level KSU Study Abroad course with content appropriate to Health Promotion*

* With the approval of the Health Promotion program coordinator and the chair of the department offering the course.

Program Total (18 Credit Hours)

Public Health Education, B.S.

Contact: Dr. Jane Petrillo, PHE Program Coordinator
Bachelor of Science Degree
WellStar College of Health and Human Services
Department of Health Promotion and Physical Education
(470) 578-6216
<http://wellstarcollege.kennesaw.edu/hpe/>

The B.S. in Public Health Education degree program allows students significant flexibility to select coursework from within the HPE Department, as well as related coursework across campus that relate to their personal interests in the public health education field. All students who complete the B.S. in Public Health Education will be eligible for the Certified Health Education Specialist (CHES) exam.

General Education (42 Credit Hours)

See Listing of Requirements.

Lower-Division Major Requirements (Area F) (18 Credit Hours)

- PHE 2100: Introduction to Public Health Education
- HPE 2250: Functional Anatomy and Physiology for Health and Physical Education
- HS 2300: Cultural Competence in the Human Services
- PHE 2400: Behavior Theory and Applications
- CSH 2500: Principles of Nutrition for the Professional
- ES 2300: Medical Terminology
- One additional hour from General Education Area D.

Program Requirements (60 Credit Hours)

I. Public Health Education (30 Credit Hours)

- PHE 3400: Disease Prevention and Management
- PHE 3850: Fundamentals of Program Planning
- PHE 4200: Introduction to Community and Worksite Health
- PHE 4300: Environmental Health Issues
- PHE 4350: Methods of Public Health Education Research
- PHE 4500: Epidemiology
- PHE 4600: Program Implementation and Evaluation
- PHE 4650: Health Coaching and Patient Education
- STAT 3125: Biostatistics

- PHE 3330: Health Systems & Health Policy
or
- NURS 3330: Health Systems & Health Policy

II. Public Health Education Capstone (12 Credit Hours)

- PHE 4750: Public Health Education Seminar and Internship

*III. Required Public Health Education Content Courses (12 Credit Hours) **

Select 4 of the following courses:

- HPE 3250: Family Health and Sexuality
- HPE 3300: Contemporary Health Issues
- HPE 3600: Child and Adolescent Health Issues
- HS 3750: Death, Dying and Bereavement
- NURS 4422: Women and Health
- NURS 4430: Gerontological Nursing
- PHE 2900: Peer Health Education
- SOCI 2251: Social Problems
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4443: Medical Sociology

*IV. Related Public Health Education Skill Courses (6 Credit Hours) **

Select 2 of the following courses:

- ORGC 2205: Introduction to Organizational Communication
- COM 3320: Health Communication
- HPE 2140: Youth Fitness Development and Assessment
- HS 2400: Interviewing Skills for the Helping Professions
- HS 3400: Community Intervention
- LDRS 3000: Foundations of Leadership
- NURS 4423: International Health Policy
- MGT 3100: Management and Behavioral Sciences
- MKTG 3100: Principles of Marketing
- SPAN 2032: Spanish for Health Professionals

* Other 3000-4000 Level Course(s) with Approval of PHE Program Coordinator and/or HPE Department Chair

Program Total: (120 Credit Hours)

University-Wide Degree Requirements

See Listing of Requirements.

Recreational Sport Management Certificate - Embedded

*Contact: Dr. Joshua Pitts , SM Program Coordinator
Bachelor of Science Degree
WellStar College of Health and Human Services
Department of Exercise Science and Sport Management
(470) 578-7600*

The field of recreation management has changed over the years. Recreation professionals have moved from a field of resource management toward a field of program development and entrepreneurship. This certificate will help prepare students for the current demands of the recreation professions. Admission into the program will be a current Kennesaw State Student with a 2.75 AGPA, completion of Introduction to Sport Management (SM 2100), and a completed application.

Student must participate in a 60 hour recreation or leisure volunteer experience (The ESSM Internship coordinator will monitor and approve these volunteer activities. These experiences will be non-course credit hours. You must provide proof of participation and/go through VKSU.)

Required Courses

- SM 3200: Leadership and Management of Sport Organizations
- SM 3400: Sport Facility Design and Management
- SM 3900: Foundations of Recreation and Leisure
- SM 4200: Recreation Programming
- SM 4300: Commercial Recreation and Tourism
- SM 3500: Sponsorship and Fundraising in Sport

Certificate Total (18 Credit Hours)

Sport Management B.S.

*Contact: Dr. Joshua Pitts, SM Program Coordinator
Bachelor of Science Degree
WellStar College of Health and Human Services
Department of Exercise Science and Sport Management
(470) 578-7600
<http://wellstarcollege.kennesaw.edu/essm/>*

The Sport Management major program is designed for students seeking an interdisciplinary approach to sport and recreation management. The major prepares students for entry into a wide array of career paths within the sport marketplace. Career opportunities include, but are not limited to, marketing of goods and services within professional and amateur sport, management of public and commercial recreation programs and facilities, electronic and print communication positions within sport organizations or sport media outlets and, sales and marketing in the fitness and health club industries. For admission to the program and further information, please contact the ESSM Advising Center office (HS 1003) at

ESSMAdvising@kennesaw.edu.

Retention criteria

An Institutional GPA of 2.75 is required for all Sport Management courses after SM 2100. The Institutional GPA criterion may be applied to required and elective courses offered by other departments at their discretion. Sport Management majors should be aware that this Institutional GPA must be maintained to progress in the program.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- SM 2100: Introduction to Sport Management
- SM 2200: History and Contemporary Aspects of Sport
- SM 2300: Legal Aspects of Sports
- SM 2400: Sports Information and Media
- ACCT 2100: Introduction to Financial Accounting
- ECON 2100: Principles of Microeconomics

Upper Division Major Requirements

Sport Management Core (36 Credit Hours)

- SM 3100: Sports Sociology and Psychology
- SM 3200: Leadership and Management of Sport Organizations
- SM 3300: Sport Event Management
- SM 3400: Sport Facility Design and Management
- SM 3500: Sponsorship and Fundraising in Sport
- SM 4700: Sports Economics
- SM 4800: Sports Finance
- SM 4900: Senior Seminar in Sport Management
- SM 4950: Senior Internship in Sport Management

Sport Management Electives (18 Credit Hours)

Select 18 hours from the following courses, at least 9 hours must be from courses at the 3000-level or above.

- ACCT 2200: Introduction to Managerial Accounting
- BLAW 2200: Legal and Ethical Environment of Business
- COM 2129: Public Speaking
- COM 2135: Writing for Public Communication
- JOUR 3310: Concepts in New Media
- JOUR 3330: News Reporting and Writing
- PR 3335: Public Relations Principles

- JOUR 3340: Digital Media Production
- PR 3375: Public Relations Writing
- JOUR 4420: Advanced Media Writing
- MENT 4430: Media Management
- ECON 2200: Principles of Macroeconomics
- ECON 4550: The Economics of Strategy
- ES 3100: Group Exercise Leadership
- ES 3900: Physiology of Exercise
- FIN 3100: Principles of Finance
- HPE 3050: Coaching Principles
- HPE 3395: Coaching Practicum
- HPE1000-level Activity courses (6 hours maximum)
- MGT 3100: Management and Behavioral Sciences
- MGT 4700: Hospitality Management
- MKTG 3100: Principles of Marketing
- MKTG 3800: Entertainment Marketing
- MKTG 4650: Advertising
- MKTG 4670: Promotional Strategy
- MKTG 4750: Advanced Selling
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing
- SM 3398: Internship
- SM 3600: Sports Broadcasting
- SM 3700: International Sport Governance
- SM 3900: Foundations of Recreation and Leisure
- SM 4200: Recreation Programming
- SM 4300: Commercial Recreation and Tourism
- SM 4400: Directed Study
- SM 4490: Special Topics in Sport Management
- SM 4600: Research Methods in Sport Management

Free Electives (6 Credit Hours)

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Sports Analytics Certificate

This certificate will equip students with the necessary knowledge and skills to utilize data to explain current trends in the sports marketplace. Students will acquire the ability to collect and interpret data using applications and theories from sport management, economics, and statistics.

Required courses (15 Credit Hours)

- ECON 2100: Principles of Microeconomics
- SM 2100: Introduction to Sport Management
- SM 4600: Research Methods in Sport Management
- SM 4650: Sports Analytics
- SM 4700: Sports Economics

College of Humanities and Social Sciences

African and African Diaspora Studies B.A.

Griselda Thomas

Coordinator, African and African Diaspora Studies

(470) 578-2431

<http://aads.hss.kennesaw.edu/>

The Bachelor of Arts degree in African and African Diaspora Studies offers students an interdisciplinary educational experience that fosters an understanding of the global experiences of African and African-descended peoples in Asia, Europe, and Oceania. In particular, students will gain an appreciation for the diverse character of humanity, explore the complex historical and cultural relations between Africans on the continent and African-descended peoples in the Diaspora, and engage in a comparative study of issues affecting Africans in the continent and the Diasporas.

Students in the major will complete 27 hours of common requirements, including two introductory courses, research methods, foreign language, Senior Seminar, and study abroad, internship, or directed applied research. In addition, students take a minimum of two courses in each of the three concentrations: Arts and Literature; History; and Social Sciences.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- AADS 1101: Introduction to African Diaspora Studies
- AADS 1102: Issues in African and African Diaspora Studies
- AADS 2260: Research Methodologies
- Six hours of 2000-level foreign language: an African language preferred, or choose from French, Arabic, Portuguese, or Spanish (6 Credit Hours)
- Elective - Any 1000-2000 level course(s), AADS-related courses suggested (3 Credit Hours)

Upper Division Major Requirements (36 Credit Hours)

Required (9 Credit Hours)

- HIST 3334: The Africans in the Diaspora
- AADS 4499: Senior Seminar

Three hours from the following:

- AADS 3380: Study Abroad
or

- AADS 3398: Internship
or
- AADS 4100: Directed Applied Research

A maximum of 6 credit hours from study abroad, internship, and/or directed study courses may be used to satisfy Upper-Division Major Requirements.

Concentrations (18 Credit Hours):

There are three Concentrations: Arts and Literature, History, and Social Sciences. With the assistance of their advisors, students are to take two courses (6 hours) in each concentration for a total of 18 hours.

Arts and Literature

- ARH 3100: African Art and Architecture
- ARH 4150: African-American Art
- MUSI 3319: History of Jazz
- MUSI 3411: Survey of African-American Music
- ENGL 3360: Major African American Writers
- ENGL 3400: Survey of African Literatures
- ENGL 3500: Topics in African American Literature
- ENGL 4401: Topics in African Literatures
- FREN 4434: Topics in Language, Literature, and Culture

History

- HIST 3333: African American History to 1865
- HIST 3335: African American History, 1865 to Present
- HIST 3357: Africans in Asia
- HIST 3358: Africans in Latin America and the Caribbean
- HIST 3382: North Africa and Middle East in Modern Times
- HIST 4905: History of the Atlantic World
- HIST 3391: History of West Africa
- HIST 3392: History of Southern, Eastern and Central Africa
- HIST 4391: Emerging Themes in African History

Social Sciences

- AADS 3500: The Black Woman
- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3360: Anthropology and Africa
- ANTH 3365: Afro-Brazilian Culture and Politics
- GEOG 3350: Geography of Sub-Saharan Africa
- GWST 3020: Black Feminisms
- POLS 4454: Politics of the Middle East
- PSYC 3355: Cross-Cultural Psychology

- PSYC 3385: Ethnic Minority Psychology
- POLS 4455: International Relations of Africa
- SOCI 4434: Emerging Social Issues in Africa
- SOCI 3314: Race and Ethnicity

AADS Electives (9 Credit Hours)

Three 3000-4000 level AADS-related courses. If elective course(s) is not listed in one of the three concentrations, it must be approved by AADS Coordinator or AADS Faculty Advisor.

Regional Breadth Requirement

Of the 27 credit hours taken in the Concentrations and AADS Electives: (1) at least 6 credit hours must explicitly focus on African Americans; (2) at least 6 credit hours must explicitly focus on Africa; and (3) at least 3 credit hours must explicitly focus on the African Diaspora in Europe, the Caribbean, South America, or Asia. *Whether this requirement has been met or not is determined by the AADS coordinator or an AADS faculty advisor.*

Related Studies (12 Credit Hours)

Twelve hours of upper-division studies in related disciplines. These could be courses not already taken from the above list of upper-division major requirements, foreign language, study abroad, internship, coop, and directed study as approved by the academic advisor.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of Requirements.

Graduation Credit Hour Total (123 Credit Hours)

African and Diaspora Studies Minor

Griselda Thomas

Coordinator, African and Diaspora Studies

(470) 578-2431

<http://aads.hss.kennesaw.edu/>

Required Course (6 Credit Hours)

- AADS 1101: Introduction to African Diaspora Studies
- AADS 1102: Issues in African and African Diaspora Studies

Electives (9 Credit Hours)

Select 9 credit hours from any combination of:

- 3000-4000 level AADS courses;
- 3000-4000 level AADS-related courses (can have any prefix). These courses must be approved by the AADS coordinator or an AADS faculty advisor.

Program Total (15 Credit Hours)

Alternative Dispute Resolution Certificate - Embedded

*College of Humanities and Social Sciences
Department of Political Science and International Affairs
(470) 578-6227*

Conflict occurs in many different situations: between and among members of a family; between labor and management; in political parties, religious groups, formal organizations and nations; and even within a single mind. The actors in a conflict can be individuals, social groups, formal organizations, or political and social institutions. Consequently, the development of skills for peaceful and nonlegal conflict resolution or management should be an essential element of a person's formal education.

A certificate in Alternative Dispute Resolution (ADR) will offer fully-admitted KSU students the opportunity to develop skills that are helpful no matter what major they pursue or which line of work they choose. Students are required to receive at least a "C" in these five courses totaling 15 credit hours in order to receive the certificate. Applications for admission to the Program are available in the office of the Department of Political Science and International Affairs.

Required Courses:

- ORGC 3325: Intercultural Communication
or
- ANTH 3307: Cultural Anthropology

- BLAW 3400: Negotiation
- POLS 3300: U.S. Constitution and Courts
- POLS 4470: Alternative Dispute Resolution
- POLS 4480: Practicum in Alternative Dispute Resolution

Program Total (15 Credit Hours)

Alternative Teacher Preparation

The Alternative Teacher Preparation (ATP) Program in Foreign Languages is a non-degree undergraduate program leading to P-12 teacher certification in Chinese, French, German, Italian, Japanese, Korean, Latin, Portuguese, or Spanish. It is open to foreign language teachers who are not fully certified but are employed and wish to obtain a State of Georgia Induction

Certificate. Upon admission, candidates receive an individualized certification plan. *Please refer to the ATP Policies and Procedures for complete program details.*

Program Admission:

1. Full-time employment as a foreign language teacher in a public or private SACS-accredited school in Georgia.
2. Sufficient time to complete the program of study before the temporary certificate expires. (This may require an extension of the certificate)
3. Letter by the principal of the candidate's school to verify employment and to request that KSU work with the teacher/candidate to complete the requirements towards the Induction Certificate.
4. Admission to KSU as an undergraduate non-degree student for Fall semester in the year you wish to be accepted.
5. Completed "Program Entry" Georgia Educator Ethics Exam.
6. Completed ATP application.
7. Official transcripts of all university courses.
8. Official professional development transcripts of all courses taken.
9. Copies of test score reports (GACE Basic Skills, GACE Content), if taken.
10. A copy of the ACTFL Oral Proficiency Interview (OPI) certificate, if taken. For Chinese and Japanese, the ACTFL Writing Proficiency Exam (WPT) is also required for a recommendation for certification. It does not apply to Latin.
11. Admission interview.
12. Hand-written essay in the non-native language completed during on-campus interview.

Application Deadline and Schedule:

Students who wish to apply for the Alternative Teacher Preparation (ATP) program must meet the required deadline.

- Fall 2017 applicants: May 1, 2016- Date admission requirements must be received.

Articulation through Sequenced Coursework:

- Successful completion of FLED 4408, FLED 4410, FLED 4412, and FLED 4414 are prerequisites to enrollment in FLED 4670 and FLED 4671.
- Successful completion of FLED 4670 and FLED 4671 are prerequisites to enrollment in FLED 4680 and FLED 4681.

Program Retention:

The prerequisites for program continuation comprise a good academic standing with a GPA of 2.75 or higher and no more than one "D" or "F" grade earned in required lower and upper division courses in the teacher education program.

Program Completion:

To earn a State of Georgia Induction Certificate:

- Earn an official ACTFL OPI rating of Advanced Low or higher in Type I languages and Intermediate High or higher in Type II languages (Latin is not included).
- Pass the GACE Basic Skills Assessment.
- Pass the GACE Content Assessment for French, German, Latin, or Spanish; or ACTFL WPT for other languages.
- Pass the Georgia Educator Ethics Assessment.
- Pass the edTPA content pedagogy assessment.

Anthropology B.S.

Susan Kirkpatrick Smith

Bachelor of Science Degree

Department of Geography and Anthropology

College of Humanities and Social Sciences

(470) 578-2373

The Bachelor of Science in Anthropology provides students with a solid foundation of disciplinary knowledge that prepares them for diverse professional employment opportunities and graduate school. The Anthropology major encompasses a broad education about human biological, behavioral, and cultural stability and change and the comparative study of contemporary societies and cultures around the planet. Majors will take courses in cultural theory and practice, physical anthropology, and archaeology, in addition to foundational courses in the field of anthropology.

General Education (42 Credit Hours)

See listing of requirements. (It is required that students take STAT1107 in Area D of the General Education Program.)

Lower Division Major Requirements (Area F) (18 Credit Hours)

Required:

Foreign language 1002 or higher (or elective from list below if FL1002 is used in Area B)

- ANTH 1102: Introduction to Anthropology
- GEOG 1130: World Regional Geography

Electives (9 Credit Hours):

Select any three 1000 or 2000 level courses from ANTH, HIST, GEOG, PHIL, POLS, PSY, SOC.

Upper Division Major Requirements (39 Credit Hours)

Foundations in Anthropology (15 Credit Hours)

- ANTH 3300: Anthropological Theory

- ANTH 3301: Human Origins
- ANTH 3303: Introduction to Linguistic Anthropology
- ANTH 3305: Principles of Archeology
- ANTH 3307: Cultural Anthropology

Anthropological Applications (6 Credit Hours)

- ANTH 3397: Anthropology Practicum
or
- ANTH 3398: Internship in Anthropology
- ANTH 4450: Research Methods in Anthropology

Upper Division Elective Courses (18 Credit Hours)

- Select 18 hours (6 courses) from those listed below or any other 3000-4000 level ANTH course not listed. Each student must take at least one course from each of the areas: Cultural Anthropology, Physical Anthropology, and Archaeology.

Cultural Anthropology

- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3315: Indigenous Peoples of the Southeast United States
- ANTH 3340: Religion, Magic, and Culture
- ANTH 3345: Food and Culture
- ANTH 3350: Cultures and Societies of the World
- ANTH 3355: Capitalisms and Cultures in Asia
- ANTH 3360: Anthropology and Africa
- ANTH 3365: Afro-Brazilian Culture and Politics
- ANTH 3521: Ethnography of Media: Global Perspectives
- ANTH 3777: Global Ethnographies of Labor
- ANTH 3999: Anthropology of Gender
- ANTH 4430: Environmental Anthropology Field Methods

Physical Anthropology

- ANTH 3320: Lab in Physical Anthropology
- ANTH 4405: Human Variation
- ANTH 4420: Lab in Forensic Anthropology

Archaeology

- ANTH 3321: Indigenous Peoples of North America
- ANTH 3335: Archeology Field Techniques
- ANTH 3380: Maya Archeology
- ANTH 3390: Lab in Archeology
- ANTH 4421: North American Archeology

- ANTH 4422: Archaeology of Asia
- ANTH 4425: Historical Archeology
- ANTH 3375: Engaged Archaeology

Note:

(A study abroad course with prior approval of the department or ANTH 4490 can be used to fulfill a requirement in the Upper Division Elective area.)

Related Studies (9 Credit Hours)

Nine hours of upper-division studies beyond the major requirements as approved by the academic advisor. 3000-4000 level ANTH courses are permitted in the Related Studies area. Additional internships may also be approved when deemed appropriate.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Anthropology Minor

Susan Kirkpatrick Smith

Department of Geography and Anthropology

(470) 578-2373

<http://www.kennesaw.edu/sga/anthminor.html>

The Minor in Anthropology prepares students for graduate programs in Anthropology and work in professions and fields that require an understanding of the effects of culture on human behavior. This is becoming increasingly useful as the cultural diversity of our society and workplaces and the international focus of businesses and research have created a demand for professionals with anthropological training.

Required Courses (15 Credit Hours)

A total of 15 credit hours of anthropology courses. At least 9 credit hours of the courses must be 3000-4000 level courses.

ANTH 1102 cannot be used for the minor if it has been used to satisfy a general education requirement. If it has not been used to satisfy a general education requirement, ANTH 1102 can be used for the minor.

Program Total (15 Credit Hours)

Asian Studies B.A.

Heeman Kim

Coordinator, Asian Studies

(470) 578-2431

<http://asianstudies.hss.kennesaw.edu/>

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Lower Division Language Requirements (6 Credit Hours)

Six Hours of 2000-Level Asian Language (the two courses must be in the same language). If the B.A. in Asian Studies ACFTL Asian language proficiency requirement is met, two courses in the KSU undergraduate catalog should be taken.

- CHNS 2001: Intermediate Chinese Language and Culture I
- CHNS 2002: Intermediate Chinese Language and Culture II
or
- JPN 2001: Intermediate Japanese Language and Culture I
- JPN 2002: Intermediate Japanese Language and Culture II
or
- KOR 2001: Intermediate Korean Language and Culture I
- KOR 2002: Intermediate Korean Language and Culture II

Research Method (3 Credit Hours)

Choose One:

- POLS 2280: Research Methods
- HIST 2270: Introduction to Themes in History
- Any Other Research Methods Course Approved by Faculty Advisor

Lower Division Electives (9 Credit Hours)

Choose three:

- ASIA 1102: Introduction to Asian Cultures (If not taken in GenEd)
- POLS 1101: American Government ** (If not taken in GenEd)
- ECON 2200: Principles of Macroeconomics **
- POLS 2250: Introduction to International Relations
- PHIL 2110: Religions of the World
- ICT 2101: Information and Communications Technology **

- IS 2200: Information Systems and Communication **
- GWST 2050: Global Perspectives on Gender **
- BLAW 2200: Legal and Ethical Environment of Business **

Upper Division Major Requirements (21 Credit Hours)

Required (6 Credit Hours)

- ASIA 3001: Understanding Asia
- ORGC 3325: Intercultural Communication

Asian History (6 Credit Hours)

Choose Two:

- HIST 3372: Ancient to Pre-Modern China
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3375: Silk Road

Business (3 Credit Hours)

Choose One:

- MGT 3100: Management and Behavioral Sciences **
- MKTG 3100: Principles of Marketing **

Study Abroad and/or Internship (6 Credit Hours)

- ISD 3398: Interdisciplinary Studies Internship
- SA 4490: Upper-division Study Abroad
- ASIA 4400: Directed Study

Upper Division Asian Language Requirements (12 Credit Hours)

Note: A student who demonstrates an intermediate oral and writing proficiency on the ACTFL scale in one of the following languages meet the language requirement for the B.A. in Asian Studies: Cambodian, Cantonese, Chinese, Hindi, Hmong, Indonesian, Japanese, Korean, Punjabi, Lao, Tagalog, Thai, Urdu, or Vietnamese. A student who meets the Asian language requirement has two options:

12. Learn a second Asian language offered at KSU: Chinese, Japanese, or Korean;

or

13. Replace the 12-credit hours of Asian language requirement with any four courses from the Asian Studies Concentrations. It is suggested that students take a 2nd Asian Studies Concentration (a collection of four courses, 12 credit hours).

Complete Four 3000-level Courses in either Chinese, Japanese, or Korean:

- CHNS 3200: Critical Reading and Applied Writing
- CHNS 3302: Practical Conversation
- CHNS 3303: Grammar and Composition
- CHNS 3304: Readings in Culture I
or
- JPN 3200: Critical Reading and Applied Writing
- JPN 3302: Practical Conversation
- JPN 3303: Grammar and Composition
- JPN 3304: Readings in Culture I
or
- KOR 3200: Critical Reading and Applied Writing
- KOR 3302: Practical Conversation
- KOR 3303: Grammar and Composition
- KOR 3304: Readings in Culture I

Asian Studies Concentrations (21 Credit Hours)

Choose four courses in one concentration, and one course from EACH of the other three concentrations for a total of seven (7) courses and 21 credit hours.

I. Asian Cultures Concentration

Choose four courses from the following:

- ASIA 3309: Survey of Chinese Literature and Culture
or
- FL 3309: Survey of Chinese Literature and Culture
-
- ASIA 3340: Contemporary South Asian Literature
or
- ENGL 3340: Ethnic Literatures
-
- ASIA 3670: Survey of Asian Art
or
- ARH 3000: Asian Art and Architecture
-
- ASIA 3355: Cultures and Capitalisms in Asia
or
- ANTH 3355: Capitalisms and Cultures in Asia
- ASIA 3760: Asian American Cultural Identities

- ASIA 4422: Archaeology of Asia
or
- ANTH 4422: Archaeology of Asia
-
- ASIA 3780: Trends in Asian Studies
- ASIA 4490: Special Topics for Asian Studies
- ASIA 4517: Tea Cultures in Asia
- GEOG 3360: Geography of Asia
- PHIL 3200: Asian Philosophy
- PHIL 4200: Indian Philosophy
- PHIL 4210: Chinese Philosophy
- PHIL 4220: Japanese Philosophy
- PSYC 3355: Cross-Cultural Psychology
- PSYC 3385: Ethnic Minority Psychology
- GWST 3030: Gender in Popular Culture
- ANTH 3340: Religion, Magic, and Culture
- ANTH 3345: Food and Culture
- Any other Asia-focused course in this area approved by faculty advisor

2. History and Politics Concentration

Choose two:

- HIST 3357: Africans in Asia
- HIST 3372: Ancient to Pre-Modern China
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3375: Silk Road
- HIST 3379: Central Asia in World History
- HIST 4475: War and Revolution in Southeast Asia

Choose Two:

- ASIA 4457: South Asian Politics: A Comparative Perspective
or
- POLS 4457: South Asian Politics: A Comparative Perspective
- POLS 3350: American Foreign Policy **
- POLS 4430: International Law and Organization **
- POLS 4435: Comparative Foreign Policy
- POLS 4436: Politics of Developing Areas **
- POLS 4452: Politics of the Pacific Rim
- POLS 4454: Politics of the Middle East
- AMST 3710: U.S. in the World
- AMST 3740: American Popular Culture
- NURS 4423: International Health Policy

- GWST 3090: Transnational Feminisms
- Any other Asia-Focused course in this area approved by faculty advisor

3. Asian Business Concentration

Choose four courses:

- MGT 3100: Management and Behavioral Sciences **
- MGT 3190: Business, Ethics, and Society **
- MGT 3600: Introduction to International Business **
- MGT 4190: International Management **
- MGT 4125: International Entrepreneurship
- MGT 4174: International Human Resource Management
- MKTG 3100: Principles of Marketing **
- MKTG 3150: Consumer Behavior **
- MKTG 3410: Professional Selling
- MKTG 3800: Entertainment Marketing
- MKTG 4450: Sales Management
- MKTG 4500: Internet Marketing and Global Business
- MKTG 4520: Social Media Marketing
- MKTG 4650: Advertising **
- MKTG 4820: International Marketing **
- MKTG 4870: Sports Marketing
- MKTG 4880: Hospitality and Tourism Marketing
- BLAW 3400: Negotiation
- BLAW 4500: Franchise Law
- BLAW 4600: International Law: Business Applications
- BLAW 4960: Current Issues in Business Ethics and Law
- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance
- IS 3220: Global IS Project Management
- IS 3100: Information Systems Management **
- ASIA 3950: Technology Strategy in Asia
- GWST 3060: Gender in the Workplace
- Any other Asia business-focused course approved by faculty advisor

Note: If MGT 3100 or MKTG 3100 was taken in the "Upper Division Major Requirements" area, choose four other courses from this list.

TEFL (Teaching English as a Foreign Language) Concentration

Required:

- ASIA 4001: Teaching English in Asia

Choose Two:

- FLED 4408: Second Language Acquisition **
- INED 4430: Applied Linguistics and English Language Literacy ***
- LING 3035: Introduction to Language and Linguistics
- Any other course in this area approved by faculty advisor

Choose One:

- FLED 4410: Methods, Materials, and Curriculum of Foreign Language Education, P-8
- FLED 4412: Methods, Materials, and Curriculum of Foreign Language Education, 9-12

Free Electives (6 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

** This course is offered online.

***This course is available for students of other concentrations.

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Asian Studies Minor

Heeman Kim

Coordinator, Asian Studies

(470) 578-2431

<http://asianstudies.hss.kennesaw.edu/program/as-minor/>

The minor in Asian Studies consists of 15 credit hours of Asian Studies coursework calculated in the following manner. A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

Required Course (3 Credit Hours)

- ASIA 3001: Understanding Asia

Select three of the following (9 Credit Hours)

- ANTH 3335: Archeology Field Techniques
- ANTH 4490: Special Topics in Anthropology
- ASIA 3309: Survey of Chinese Literature and Culture
- ASIA 3340: Contemporary South Asian Literature
- ASIA 3355: Cultures and Capitalisms in Asia
- ASIA 3670: Survey of Asian Art

- ASIA 3950: Technology Strategy in Asia
- ASIA 4422: Archaeology of Asia
- ASIA 4457: South Asian Politics: A Comparative Perspective
- ASIA 4490: Special Topics for Asian Studies
- ORGC 3325: Intercultural Communication
- ECON 4310: Economic Development in Global Perspective
- GEOG 3360: Geography of Asia
- HIST 3372: Ancient to Pre-Modern China
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 4475: War and Revolution in Southeast Asia
- PHIL 4200: Indian Philosophy
- PHIL 4210: Chinese Philosophy
- PHIL 4220: Japanese Philosophy
- POLS 4452: Politics of the Pacific Rim
- SA 4490: Upper-division Study Abroad
- Any other Asia-focused course approved by faculty advisor

Select one of the following (3 Credit Hours)

- CHNS 1001: Introduction to Chinese Language and Culture I
- CHNS 1002: Introduction to Chinese Language and Culture II
- CHNS 2001: Intermediate Chinese Language and Culture I
- CHNS 2002: Intermediate Chinese Language and Culture II
- JPN 1001: Introduction to Japanese Language and Culture I
- JPN 1002: Introduction to Japanese Language and Culture II
- JPN 2001: Intermediate Japanese Language and Culture I
- JPN 2002: Intermediate Japanese Language and Culture II
- KOR 1001: Introduction to Korean Language and Culture I
- KOR 1002: Introduction to Korean Language and Culture II
- KOR 2001: Intermediate Korean Language and Culture I
- KOR 2002: Intermediate Korean Language and Culture II

Program Total (15 Credit Hours)

Chinese Studies Minor

Advisor: Liuxi (Louis) Meng

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguages.hss.kennesaw.edu/programs/minor-chinese/>

The minor in Chinese Studies consists of 15 credit hours of Chinese coursework calculated in the following manner. A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

Required (15 Credit Hours)

- CHNS 2002: Intermediate Chinese Language and Culture II
- CHNS 3200: Critical Reading and Applied Writing
- CHNS 3302: Practical Conversation
- CHNS 3303: Grammar and Composition
- One additional course at the 3000- or 4000-level specific to Chinese studies. This course must be approved by a Chinese advisor and may include FL 3309, study abroad, or internships.

Program Total (15 Credit Hours)

Communication B.S.

Degree: Bachelor of Science Degree

Office: College of Humanities and Social Sciences

School of Communication & Media

Phone: (470) 578-6298

The program of study in communication offers a Bachelor of Science degree with an emphasis in one of two academic concentrations: (1) Media and Entertainment Studies or (2) Organizational Communication.

Organizational Communication Concentration

Organizational Communication professionals study the role of communication in increasing corporate productivity and employee satisfaction. KSU is the only Georgia institution offering an undergraduate concentration in Organizational Communication. Organizational Communication students learn the skills they need to develop employee training programs, training manuals, and employee handbooks. Students also conduct communication audits at area companies to measure employee satisfaction with company communication practices. Students often intern in corporate human resources or training and development departments.

Media and Entertainment Studies Concentration

The Media Studies Concentration helps students navigate the media-rich culture as critical thinkers and intentional media creators and users in employment and in personal life. The three competency areas-Technology, Writing, and Media Literacy-offer a focused set of knowledge gains our media studies graduates will need in an increasingly complex and converging media world. The concentration is designed to give students the freedom to personalize their studies. Students can make creative combinations of courses to suit their interests and blend knowledge and insight in interdisciplinary ways. Graduates from this concentration will be more savvy media consumers, parents, and participants in the democratic process. Career directions could include, among others: media sales, media buyer, media research, public affairs, writing and publishing, public information officer, community outreach, political advocacy, ministry, as well as communication-based jobs in local, state and federal government. Media Studies also is useful preparation for graduate study.

The Communication major requires 18 credit hours of lower division course work (1000-2000

level) comprising various offerings, both inside and outside of the communication discipline, that serve as important groundwork leading to advanced studies. Lower division offerings include basic courses in communication research, visual communication, public speaking, writing, information systems, and an introductory course relevant to the student's selected concentration.

All communication majors must earn a grade of "C" or better in all communication courses counted toward their degree and pass the Communication Entrance Exam with a score of 70% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments.

To be eligible to apply to a major in Communication, students must meet the following criteria:

- Meet the School of Communication & Media (SOCM) Sophomore GPA Requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:
 - ◊ COM 2020
 - ◊ COM 2033
 - ◊ COM 2129
 - ◊ COM 2135
 - ◊ COM 2205 or COM 2230
- Achieve a satisfactory score on the SOCM Entrance Exam. Students may take the test no more than three times.

General Education (42 Credit Hours)

See listing of requirements

Lower Division Major Requirements (Area F) (18 Credit Hours)

- COM 2020: CSI: Communication Sources and Investigations
- COM 2033: Visual Communication
- COM 2129: Public Speaking
- COM 2135: Writing for Public Communication
- ICT 2101: Information and Communications Technology

Choose one of the following according to the selected concentration:

- COM 2230: Introduction to Mass Communication (Media and Entertainment Studies Concentration)
- ORGC 2205: Introduction to Organizational Communication (Organizational Communication concentration)

Upper Division Major Requirements (36 Credit hours)

- COM 3435: Communication Research Methods
- COM 4480: Communication Theory

Major Concentration

Select one of the two concentrations listed below:

Organizational Communication

Concentration requirements (15 Credit Hours)

- ORGC 3325: Intercultural Communication
- ORGC 3376: Interpersonal Communication
- ORGC 4344: Organizational Training and Development
- ORGC 4440: Leadership Communication
- ORGC 4455: Organizational Communication Audit (Capstone)

Concentration electives (choose two) (6 Credit Hours)

- ORGC 3345: Team Communication
- ORGC 3459: Communication and Conflict

Upper Division Elective Courses (9 Credit Hours)

- Choose 9 hours from any 3000-4000 level SOCM course not previously taken. Each concentration provides students a recommended list of electives for that concentration.

Media and Entertainment Studies

Concentration requirements (9 Credit Hours)

- MENT 3326: Global Media Systems
- MENT 4424: Uses and Effects of Mass Media
- MENT 4485: Media & Entertainment Studies Capstone

Technology Competency (choose one) (3 Credit Hours)

- JOUR 3340: Digital Media Production
- PR 4405: Digital Publication Design

Writing Competency (choose one) (3 Credit Hours)

- FILM 3105: Fundamentals of Writing for Film and Television
- JOUR 3330: News Reporting and Writing
- PR 3375: Public Relations Writing
- WRIT 3150: Topics in Digital Rhetoric

Media Literacy (choose two) (6 Credit Hours)

- AMST 3740: American Popular Culture
- MENT 4425: Gender, Race and Media
- MENT 4434: Topics in Media Studies

- MENT 4444: Film and Video Structure and Process
- FILM 3200: Film History and Theory I
- POLS 3380: Mass Media and Politics
- PR 3429: Persuasion Methods and Strategies
- JOUR 4470: Media Law

Major Electives (choose three courses for 9 credit hours, with at least 6 hours in SOCM)

- Select courses not chosen above. Check the course description section of the university catalog to determine prerequisites that might be needed for some courses.
 - ◊ AMST 3740: American Popular Culture
 - ◊ COM 3315: Interviewing
 - ◊ COM 3320: Health Communication
 - ◊ ORGC 3325: Intercultural Communication
 - ◊ COM 3350: Editing for Today's Media
 - ◊ ORGC 3376: Interpersonal Communication
 - ◊ COM 3398: Internship in Communication
 - ◊ COM 4100: Directed Applied Research
 - ◊ COM 4400: Directed Study
 - ◊ MENT 4425: Gender, Race and Media
 - ◊ MENT 4430: Media Management
 - ◊ MENT 4434: Topics in Media Studies
 - ◊ MENT 4444: Film and Video Structure and Process
 - ◊ COM 4490: Special Topics in Communication
 - ◊ FILM 3105: Fundamentals of Writing for Film and Television
 - ◊ FILM 3200: Film History and Theory I
 - ◊ POLS 3380: Mass Media and Politics
 - ◊ WRIT 3150: Topics in Digital Rhetoric
 - ◊ WRIT 3160: Argumentative Writing
 - ◊ PR 3335: Public Relations Principles
 - ◊ PR 3355: Public Relations Cases
 - ◊ PR 3375: Public Relations Writing
 - ◊ PR 4405: Digital Publication Design
 - ◊ PR 3429: Persuasion Methods and Strategies
 - ◊ JOUR 3310: Concepts in New Media
 - ◊ JOUR 3330: News Reporting and Writing
 - ◊ JOUR 3340: Digital Media Production
 - ◊ JOUR 3360: Photojournalism
 - ◊ JOUR 4412: Sports Reporting
 - ◊ JOUR 4420: Advanced Media Writing
 - ◊ JOUR 4445: Advanced Digital Audio Production
 - ◊ JOUR 4450: Video News Production
 - ◊ JOUR 4470: Media Law

Related Studies (12 Credit Hours)

Select 12 hours of upper division course work (3000-4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

Free Electives (12 Credit Hours)

Any courses (1000-4000) in the university curriculum. Students must earn a grade of "D" or better.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Comparative American Studies Minor

Rebecca Hill

Coordinator, American Studies

470-578-2431

<http://amst.hss.kennesaw.edu/programs/amst-minor/>

Required Courses (6 Credit Hours)

Students may take any two of the following courses:

- AMST 3700: American Studies: Principles and Methods
- AMST 3720: America and Empire
- ISD 2001: Introduction to Diversity and Social Justice

Select one or two of the following (3-6 Credit Hours)

- AMST 3710: U.S. in the World
- AMST 3740: American Popular Culture
- AMST 3750: Place in American Culture
- AMST 3760: Advanced Studies in American Identities
- AMST 3770: American Cultural Productions
- AMST 3780: American Cultural Movements
- AMST 4490: Special Topics in American Studies

Select one or two of the following (3-6 Credit Hours)

One to two courses in 3000 or 4000 level courses in ISD programs where content of courses relates to the study of cultures of the United States and/or the Americas.

- AADS 3780: Trends in African and African Diaspora Studies
- AADS 3500: The Black Woman
- AADS 4040: Major Issues and Figures
- ASIA 3760: Asian American Cultural Identities
- GWST 3010: Queer Theory & Sexuality
- GWST 3030: Gender in Popular Culture
- GWST 3070: Gender and Social Justice
- LALS 3770: Latin American Cinema
- LALS 3780: Trends in Latin American/Latino Studies
- LALS 4490: Special Topics in Latin American/Latino Studies
- RELS 3780: Trends in Religious Studies
- PAX 3780: Trends in Peace Studies
- PAX 3220: Peace and Film

Electives (0-3 Credit Hours)

The balance of credits is drawn from the following. Alternatively, students may take an additional course from the list of program courses above. With the permission of the AS coordinator, English majors may use one ENGL course toward the minor AREA II electives, and history majors may use one HIST course toward the minor AREA II electives.

- ANTH 3321: Indigenous Peoples of North America
- ENGL 3340: Ethnic Literatures
- ENGL 3500: Topics in African American Literature
- ENGL 3360: Major African American Writers
- ENGL 4360: American Literature Before 1800
- ENGL 4460: 19th-Century American Literature
- ENGL 4560: 20th-Century American Literature
- FILM 3220: Studies in Film
- HIST 3310: The Old South
- HIST 3311: The New South
- HIST 4204: The History of the American West
- HIST 3331: History of Religion in the U.S.
- HIST 3335: African American History, 1865 to Present
- HIST 3341: Women in U.S. History and Culture
- HIST 4435: History and Memory
- PHIL 3020: American Philosophy
- POLS 4427: American Political Thought
- SOCI 3314: Race and Ethnicity
- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3315: Indigenous Peoples of the Southeast United States

- ANTH 3365: Afro-Brazilian Culture and Politics
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ARH 3250: Latin American Art and Architecture
- ARH 3750: History of American Art and Architecture
- ARH 4150: African-American Art
- ARH 4750: American Landscape Painting
- MENT 4425: Gender, Race and Media
- HIST 4905: History of the Atlantic World
- HIST 4412: The Early Republic
- HIST 3366: History of Mexico and Central America
- HIST 3367: History of Brazil
- HIST 4911: Themes in American Environmental History
- HIST 4410: Colonial America to 1763
- HIST 4411: The American Revolution
- HIST 4415: Jacksonian America
- HIST 4451: Civil War and Reconstruction
- HIST 4461: Gilded Age & Progressive Era
- HIST 4471: Recent United States History
- PHIL 3210: Latin American and Caribbean Philosophy
- POLS 3300: U.S. Constitution and Courts
- POLS 3315: American Constitutional Law: Federalism
- POLS 3328: African American Politics
- POLS 3350: American Foreign Policy
- POLS 3356: U.S. Environmental Policy & Politics
- SOCI 3350: Intersections of Race, Class, and Gender

Program Total (15 Credit Hours)

Constitutional Studies Certificate - Embedded

College of Humanities and Social Sciences

Department of Political Science and International Affairs

(470) 578-6227

<http://psia.hss.kennesaw.edu/>

The certificate in Constitutional Studies will concentrate on the development of the U.S. Constitution and the Bill of Rights, their interpretation by judges through judicial decisions, and how the constitutional doctrines of federalism, enumerated powers, separation of powers, and the rule of law apply to the national and state governments. The capstone class, the American Legal System, will then examine broader considerations of how fundamental law has acted to define the powers of government and also sought to limit those powers through the institution of civil rights and civil liberties.

The Certificate in Constitutional Studies is awarded upon graduation and students must have a

3.0 overall Grade Point Average in classwork and complete certificate coursework with a 3.0 average or better. Students must also successfully complete a paper incorporating U.S. Constitutional law in the POLS 4410 capstone class as an assessment of achieving significant knowledge of constitutional law.

Curriculum Courses

- POLS 4405: Comparative Legal Systems
- POLS 4411: Criminal Law
- POLS 4416: Law and Gender
- POLS 4420: Judicial Process
- POLS 4429: Legal Theory & Philosophy
- POLS 4466: Trial Procedure and Evidence

Core Constitutional Certificate Classes

The core classes are one formal class in constitutional law, either POLS 3315 or POLS 4415, coupled with the capstone class of POLS 4410 American Legal Systems.

- POLS 4410: American Legal System
- POLS 3315: American Constitutional Law: Federalism
- POLS 4415: Civil Liberties

Note:

POLS 4415 or POLS 3315 meet the Core Requirement of 6 hours. POLS 4410 is the capstone class and is required for the certificate as the program assessment occurs in that class. POLS 3300 U.S. Constitution and Courts is a required class to enroll in upper division legal classes but is not required for the certificate.

Criminal Justice B.S.

Bachelor of Science Degree

College of Humanities and Social Sciences, Department of Sociology and Criminal Justice

470-578-6739

www.kennesaw.edu/scj

The Criminal Justice system is an institution that is at the crux of societal concern. When individuals are asked to define major social problems, the fear of and response to crime are found at the top of the list. People not only want to have a better understanding of these problems; many also want to become a part of the solution. It is these individuals who will be the primary beneficiaries of the Criminal Justice major at KSU. The secondary beneficiaries are members of the community; university educated criminal justice personnel make better criminal justice practitioners. This program of study is timely and relevant. It infuses knowledge about interpersonal communication skills, multicultural issues, leadership and management concerns, moral and ethical considerations, and technological applications into the coursework.

The program is appropriate for pre-service as well as in-service students.

General Education (42 Credit Hours)

See listing of requirements.

Note:

MATH 1107: Introduction to Statistics is recommended for this major in Area D.

Lower Division Major Requirements (Area F) and Selected Concentration (18 Credit Hours)

- CRJU 1101: Foundations of Criminal Justice
- SOCI 1101: Introduction to Sociology
- CRJU 2201: Crimes and Defenses

Select three of the following:

- ANTH 1102: Introduction to Anthropology
- PSYC 1101: Introduction to General Psychology

- GEOG 1101: Introduction to Human Geography
or
- GEOG 1130: World Regional Geography

- HS 2100: Overview of Human Services

- SPAN 1001: Introduction to Spanish Language and Culture I
or
- FL 1001: Introduction to Foreign Language and Culture I

- ICT 2101: Information and Communications Technology
- ACCT 2100: Introduction to Financial Accounting
- SPAN 2034: Spanish for Criminal Justice

Cultural Diversity (3 Credit Hours):

Select One:

- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3307: Cultural Anthropology
- SOCI 3314: Race and Ethnicity
- PSYC 3355: Cross-Cultural Psychology
- SOCI 3350: Intersections of Race, Class, and Gender

Upper Division Major Requirements (27 Credit Hours)

- CRJU 3301: Research Methods in Criminal Justice

- CRJU 3310: Police in America
or
- CRJU 3311: Police Administration
- CRJU 3300: Criminal Courts
- CRJU 3332: Corrections
- CRJU 3398: Internship
or
- CRJU 3396: Cooperative Study
or
- SA 4490: Upper-division Study Abroad
- CRJU 4100: Ethics in Criminal Justice
- CRJU 3315: Criminal Procedure
- SOCI 4432: Criminology
- CRJU 4499: Senior Seminar in Criminal Justice

Criminal Justice Electives (12 Credit Hours)

Select four courses:

- CRJU 3305: Technology and Criminal Justice
- CRJU 3310: Police in America
- CRJU 3311: Police Administration
- CRJU 3312: State and Federal Law Enforcement Initiatives
- CRJU 3315: Criminal Procedure
- CRJU 3320: Criminal Investigation
- CRJU 3332: Corrections
- CRJU 3340: Legal Analysis
- CRJU 3352: Juvenile Justice
- CRJU 3365: Profile of the Serial Offender
- CRJU 3398: Internship
- CRJU 3400: Ideological/Group Violence and Law Enforcement
- CRJU 4300: Organized Crime
- CRJU 4305: Technology and Cyber Crime
- CRJU 4410: Criminal Profiling and Analysis
- CRJU 4430: Victimology
- CRJU 4490: Special Topics in Criminal Justice
- POLS 4411: Criminal Law
- SOCI 3360: Sociology of Violence
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4442: Deviance and Social Control

Related Studies (6 Credit Hours)

Select 6 hours of upper division course work (3000-4000 level). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine prerequisites for upper-division elective courses and take them as electives in lower division major requirements or free electives.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Note:

*Students cannot use the same elective(s) for their upper division required core courses.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Criminal Justice Minor

Dawn Baunach

Department of Sociology and Criminal Justice

470-578-6739

<http://scj.hss.kennesaw.edu/programs/minor-cj>

Students will learn about crime and criminal justice issues, including interpersonal communication skills, leadership, and management concerns, technological applications, and ethical considerations.

Required Course (3 Credit Hours)

- CRJU 1101: Foundations of Criminal Justice

Law Enforcement (3 Credit Hours)

Select one from the following:

- CRJU 3310: Police in America
- CRJU 3311: Police Administration
- CRJU 3312: State and Federal Law Enforcement Initiatives

Corrections (3 Credit Hours)

Select one from the following:

- CRJU 3332: Corrections

- CRJU 3352: Juvenile Justice

Adjudication (3 Credit Hours)

Select one from the following:

- CRJU 3300: Criminal Courts
- CRJU 3315: Criminal Procedure
- CRJU 3340: Legal Analysis

Elective (3 Credit Hours)

Select one from the following:

- CRJU 3301: Research Methods in Criminal Justice *
- CRJU 3305: Technology and Criminal Justice
- CRJU 3320: Criminal Investigation
- CRJU 3400: Ideological/Group Violence and Law Enforcement
- CRJU 4100: Ethics in Criminal Justice
- CRJU 4305: Technology and Cyber Crime
- CRJU 4430: Victimology
- CRJU 4490: Special Topics in Criminal Justice
- SOCI 4432: Criminology *

Program Total (15 Credit Hours)

Note:

* Students whose undergraduate degrees are not in criminal justice, criminology, or related studies and who are interested in pursuing a master's degree program in Criminal Justice (MSCJ) at KSU should complete these two undergraduate courses (six hours) in Criminology and Research Methods in Criminal Justice. These two undergraduate courses are pre-requisites for the MSCJ program, and these six credit hours will not count toward the graduate degree requirements.

Criminology Minor

Dawn Baunach

Department of Sociology and Criminal Justice

470-578-6739

<http://scj.hss.kennesaw.edu/programs/minor-criminology/>

Economic conditions, rapid demographic changes, alterations in social institutions and extensive drug and alcohol abuse have led to high crime rates in the United States. Parallel social changes in other countries reflect concomitant increases in criminal behavior. Internationally, there is an increasing concern about public safety. Students will learn about the causes of crime, how to measure the extent of crime, and how to critically examine the approaches used to prevent, sanction, and change criminal behavior.

Required Courses (6 Credit Hours)

- CRJU 1101: Foundations of Criminal Justice
or
- SOCI 1101: Introduction to Sociology
- SOCI 4432: Criminology

Select three of the following (9 Credit Hours)

- CRJU 3352: Juvenile Justice
- CRJU 3365: Profile of the Serial Offender
- CRJU 4410: Criminal Profiling and Analysis
- CRJU 4430: Victimology
- GEOG 3300: Urban Geography
- POLS 4405: Comparative Legal Systems
- POLS 4411: Criminal Law
- PSYC 3310: Psychopharmacology
- PSYC 4430: Abnormal Psychology
- SOCI 3360: Sociology of Violence
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4442: Deviance and Social Control

Program Total (15 Credit Hours)

Crisis Preparedness Minor

Required Courses (9 Credit Hours)

- PR 4460: Crisis Communication
- ISA 3330: Information Security Approach to Crisis Management
- POLS 4200: Homeland Security Administration

Elective Courses (6 Credit Hours)

Choose two of the following:

- KSU 1101: First-Year Seminar
- PR 4415: Topics in Public Relations
- CRJU 3400: Ideological/Group Violence and Law Enforcement
- CRJU 4100: Ethics in Criminal Justice
- PR 4670: Crisis Leadership Communication
- LDRS 3400: Service as Leadership
- NURS 4423: International Health Policy
- POLS 4431: Politics of International Terrorism
- POLS 4437: Global Security

Program Total (15 Credit Hours)

Diversity and Community Engagement - Embedded

The Certificate in Diversity and Community Engagement explores the theory and praxis of diversity concerns as they relate to interdisciplinary study, while giving students an opportunity to design and carry out a community engagement project. It will serve students in a number of majors, providing insight into how diversity issues play out in organizations and community groups while providing them service.

Required Courses:

- ISD 2001: Introduction to Diversity and Social Justice
- ISD 3398: Interdisciplinary Studies Internship
- ISD 3399: ISD Certificate Colloquium
- Relative Elective (3 credit hours)

Program Total: (10 Credit Hours)

English B.A.

*Bachelor of Arts Degree
College of Humanities and Social Sciences
Department of English
(470) 578-6297*

English majors take 18 hours of courses in lower-division major requirements. These courses are designed as an introduction to the field of English Studies.

At the 3000/4000 level, students choose one course from each of eight categories: Language, Writing, Genres, Cultural Studies, Theory, and three period requirements.

The English major culminates in the Senior Seminar, which is the major's capstone course.

All English majors must demonstrate competence in foreign languages up through the level of FL 2002.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

Area C:

- ENGL 2110: World Literature
or
- ENGL 2111: Early World Literature
or
- ENGL 2112: World Literature mid 1600s to Present

Lower Division Major Requirements (Area F) (18 Credit Hours)

- FL 2001: Intermediate Foreign Language and Culture I
- FL 2002: Intermediate Foreign Language and Culture II
- ENGL 2145: Introduction to English Studies
- ENGL 2160: American Literature Survey
- ENGL 2172: British Literature, Beginnings to 1660
- ENGL 2174: British Literature, 1660 to Present

Upper Division Major Requirements (30 Credit Hours)

At least 24 of these 30 hours must be taken at Kennesaw State.

Three hours from each of the following eight groups (24 Credit Hours)

I. Linguistics

- LING 3020: Linguistics and Literature
- LING 3025: Linguistics for Education
- LING 3030: Studies in Grammar and Linguistics *
- LING 3035: Introduction to Language and Linguistics
- LING 3040: History of the English Language
- LING 3045: Grammar of Contemporary American English
- LING 3050: Sociolinguistics
- LING 3055: Politics and Language

II. Writing

- WRIT 3000: Introduction to Creative Writing Genres
- WRIT 3100: Poetry Writing
- WRIT 3109: Careers in Writing
- WRIT 3110: Playwriting
- WRIT 3111: Professional Editing
- WRIT 3120: Fiction Writing
- WRIT 3130: Literary Nonfiction
- WRIT 3140: Writing in the Workplace
- WRIT 3150: Topics in Digital Rhetoric *
- WRIT 3160: Argumentative Writing *
- WRIT 3170: Environmental Writing and Literature

III. Genres

- FILM 3200: Film History and Theory I
- FILM 3210: Film History and Theory II
- FILM 3220: Studies in Film *
- ENGL 3230: Literary Genre *

- ENGL 3232: Topics in Drama *

IV. Cultural Studies of Literature

- ENGL 3320: Scriptural Literature *
- ENGL 3322: Hebrew Scriptures as Literature *
- ENGL 3324: New Testament as Literature *
- ENGL 3330: Gender Studies *
- ENGL 3340: Ethnic Literatures *
- ENGL 3350: Regional Literature *
- ENGL 3360: Major African American Writers *
- ENGL 3400: Survey of African Literatures *
- ENGL 3500: Topics in African American Literature *
- ENGL 3600: Topics in African Diaspora Literatures *
- ENGL 4401: Topics in African Literatures *
- AMST 3700: American Studies: Principles and Methods
- AMST 3710: U.S. in the World
- AMST 3740: American Popular Culture
- AMST 3750: Place in American Culture
- AMST 3760: Advanced Studies in American Identities
- AMST 3770: American Cultural Productions
- AMST 3780: American Cultural Movements

V. Theory

- ENGL 4220: Critical Theory
- ENGL 4230: Theory-Based Studies in Literature *
- ENGL 4240: Rhetorical Theory

VI. Studies in Literature Before 1800

- ENGL 4340: Shakespeare
- ENGL 4360: American Literature Before 1800 *
- ENGL 4370: British Medieval and Chaucerian Literature
- ENGL 4372: British Renaissance Literature
- ENGL 4374: Studies in Restoration and Eighteenth-Century Literature
- ENGL 4380: World Literature Before 1800 *

VII. Studies in 19th-Century Literature

- ENGL 4460: 19th-Century American Literature *
- ENGL 4470: 19th-Century British Literature *
- ENGL 4480: 19th-Century World Literature *

VIII. Studies in 20th-Century Literature

- ENGL 4560: 20th-Century American Literature *

- ENGL 4570: 20th-Century British Literature *
- ENGL 4580: 20th-Century World Literature *

Note:

*This course can be taken more than once provided the course content differs entirely from the previous offering.

Senior Seminar (3 Credit Hours)

- ENGL 4620: Senior Seminar

Elective (3 Credit Hours)

- 3000 or 4000-Level ENGL/FILM/WRIT/LING

Upper Level Electives (9 Credit Hours)

Three 9 hours of upper-division studies can be selected from any 3000- or 4000-level courses in the university curriculum.

Free Electives (21 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

English Education B.S.

Bachelor of Science Degree

Leading to Certification for Grades 6-12

College of Humanities and Social Sciences

Department of English

(470) 578-6297

<http://www.kennesaw.edu/english>

This single field program is designed to prepare English teachers of adolescents, largely at the secondary school level (grades 6 through 12). It leads to 6-12 teacher certification in the teaching field of English/Language Arts in Georgia. Candidates complete the equivalent of a major in English/Language Arts and a second major in pedagogical studies with an emphasis on teaching English/Language Arts.

The English Education program aims to prepare teachers who have a broad, rich knowledge of the discipline of English (including courses in British, American, and world literature, language

theory, and writing) and who enact an integrated, reflective, and theoretically informed pedagogy for English/Language Arts.

This program is fully accredited by CAEP (the Council for the Accreditation of Educator Preparation), is nationally recognized by NCTE (National Council of Teachers of English), and is fully approved by Georgia's Professional Standards Commission for teacher certification.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for the Major:

Area C:

- ENGL 2110: World Literature
or
- ENGL 2111: Early World Literature
or
- ENGL 2112: World Literature mid 1600s to Present

Lower Division Major Requirements (Area F) (18 Credit Hours)

Register for an account with the Georgia Professional Standards Commission (<http://mypsc.org>) as soon as possible. Apply for Teacher Education Program (TEP) through Owl Express while taking EDUC 2110 (with teacher recommendation), passing or exempting GACE Program Admission (<http://gace.ets.org>), acquiring a 2.75 GPA, and earning at least 45 hours of accredited college coursework.

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- ENGL 2145: Introduction to English Studies
- ENGL 2160: American Literature Survey
- ENGL 2172: British Literature, Beginnings to 1660
- ENGL 2174: British Literature, 1660 to Present

Upper-Level Requirements (36 Credit Hours)

- EDUC 2130: Exploring Teaching and Learning
- ENGL 2271: Introduction to Teaching English Language Arts
- ENGL 3241: Technology and Digital Media in English/Language Arts
- ENGL 3310: Principles of Writing Instruction
- ENGL 3391: Teaching Literature to Adolescents
- ENGL 4340: Shakespeare
- EDRD 4411: Reading Diagnostics for Teachers of Adolescents
- LING 3025: Linguistics for Education
or
- LING 3035: Introduction to Language and Linguistics

Other Teaching Field Requirements

Cultural Studies of Literature (3 Credit Hours)

Choose One:

- ENGL 3320: Scriptural Literature
- ENGL 3330: Gender Studies
- ENGL 3340: Ethnic Literatures
- ENGL 3350: Regional Literature
- ENGL 3360: Major African American Writers
- ENGL 3400: Survey of African Literatures
- ENGL 3500: Topics in African American Literature
- ENGL 3600: Topics in African Diaspora Literatures
- ENGL 4401: Topics in African Literatures
- AMST 3700: American Studies: Principles and Methods
- AMST 3710: U.S. in the World
- AMST 3740: American Popular Culture
- AMST 3750: Place in American Culture
- AMST 3760: Advanced Studies in American Identities
- AMST 3770: American Cultural Productions
- AMST 3780: American Cultural Movements

Studies in 19th-Century Literature (3 Credit Hours)

Choose One:

- ENGL 4460: 19th-Century American Literature
- ENGL 4470: 19th-Century British Literature
- ENGL 4480: 19th-Century World Literature

Studies in 20th-Century Literature (3 Credit Hours)

Choose One:

- ENGL 4560: 20th-Century American Literature
- ENGL 4570: 20th-Century British Literature
- ENGL 4580: 20th-Century World Literature

Yearlong Clinical Experience (24 Credit Hours)

- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- INED 4435: Foundations of Teaching Adolescent English Learners
- INED 4436: Foundations of Teaching Adolescent English Learners II
- ENED 4414: Teaching of English Language Arts I
- ENED 4416: Teaching English Language Arts II
- EDUC 4610: Introduction to the Yearlong Clinical Experience

- ENED 4650: Yearlong Clinical Experience in ELA I
- ENED 4660: Yearlong Clinical Experience in ELA II

Note: Take GACE II Subject Area - English I and II (<http://gace.ets.org>) only during student teaching. These tests are required for certification.

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Environmental Studies Minor

*College of Humanities and Social Sciences
Department of Geography and Anthropology
(470) 578-2373
<http://ga.hss.kennesaw.edu/>*

Required Courses (3 Credit Hours)

Note: Students must take one of the following courses. Students may elect to take both of the courses; students who take both ANTH 4430 and GEOG 3700 will need an additional 9 credit hours (selected from the options below).

- ANTH 4430: Environmental Anthropology Field Methods
or -
- GEOG 3700: Introduction to Environmental Studies

Additional Courses (12 Credit Hours)

Note: Students may select any four courses from the list below. They may also apply credit earned in an environmentally-themed section of Special Topics (GEOG 4490) or Gender Studies (ENGL 3330, GWST 4040) courses with approval of the ENVS program coordinator.

- ENVS 3720: Sustainability at KSU
- ENVS 3730: Natural Resource Management
- ENVS 4300: Environmental Ethics
- GEOG 3305: Introduction to Cartographic Processes
- GEOG 3710: Local & Global Sustainability
- GEOG 3800: Climatology
- GEOG 3850: Global Climate Change
- GEOG 3900: Biogeography
- GEOG 4700: Geomorphology
- WRIT 3170: Environmental Writing and Literature
- POLS 4456: International Environmental Policy

- SCI 3360: Earth Science
- SCI 4700L: Applied Environmental Studies
- ENVS 3398: Internship

Program Total (15 Credit Hours)

European Studies Minor

The Minor in European Studies is an interdisciplinary program. The minor offers courses incorporating basic and applied research, Study Abroad, and experiential learning. The goals of the Minor in European Studies are: to expand knowledge of Europe and its cultures; to encourage students to study a broad range of topics; and to embrace a spirit of engaged humanities at KSU and after graduation. The Minor emphasizes critical thinking skills and encourages the crossing of national and disciplinary boundaries.

Required Courses (6 Credit Hours)

- EUST 2050: Introduction to European Studies
- EUST 4040: Capstone in European Studies

Electives (9 Credit Hours)

Select three (3) courses from the following:

- ARH 2850: Renaissance through Modern Art
- ENGL 4570: 20th-Century British Literature
- FL 2209: World Languages and Cultures
- FREN 3305: Literature and Culture II
- FREN 4402: Contemporary Culture
- GEOG 3312: Geography of Europe
- GEOG 3305: Introduction to Cartographic Processes
- GRMN 4402: Contemporary Culture
- GWST 2050: Global Perspectives on Gender
- HIST 4558: The Holocaust
- HIST 3361: Themes in Slavic and Eastern European Studies
- HIST 4454: Twentieth Century Europe
- HIST 4455: Twentieth Century Russia
- ITAL 3305: Literature and Culture II
- ITAL 4402: Contemporary Culture
- MUSI 3317: History of Opera
- PHIL 4000: Nineteenth Century Western Philosophy
- PHIL 4010: Contemporary Western Philosophy
- POLS 4433: European Union Politics
- POLS 4439: Political Economy of Russia and Central Asia in Transition
- POLS 4449: Russian Foreign Policy
- POLS 4451: Politics and Government in Post-Communist Europe

- PORT 3304: Introduction to Lusophone Literatures and Cultures
- SPAN 3305: Literature and Culture II
- SPAN 4402: Contemporary Culture

Program Total (15 Credit Hours)

European Union Studies Certificate - Embedded

*Contact: Dr. Thomas Doleys, Certificate Coordinator
Department of Political Science and International Affairs
(470) 578-6227*

The European Union Studies Certificate at Kennesaw State University is part of a multi-institution collaborative offered by the University System of Georgia. The program is designed to provide students in-depth multi-disciplinary knowledge of the European Union. Students who successfully complete the certificate will be prepared to move into a range of occupations for which familiarity with the European Union is an asset. They will also have the foundation necessary to pursue graduate study in fields related to the European Union.

Students wishing to earn the certificate must complete five (5) courses. They include: EURO 3234 Introduction to the European Union, three upper-division elective courses, and POLS 4433 European Union Politics and Policy (or other coordinator-approved capstone course). Certificate courses can be taken at KSU. EURO designated courses are also available online through the USG collaborative. Students must maintain a GPA of 3.0 in certificate courses.

Required Introductory Course (3 Credit Hours)

- EURO 3234: Introduction to the European Union

Upper-Division Electives (Choose Three) (9 Credit Hours)

Students should take no more than that two (2) courses in a given discipline area other than the EURO-designated courses.

EURO-Designated Courses

Courses are available via the USG EU Studies inter-institutional collaborative.

- EURO 4160: Federalism & Multilevel Governance
- EURO 4230: Doing Business in the EU
- EURO 4260: European Monetary Union
- EURO 4330: EU Science & Technology Policy
- EURO 4430: EU Environmental Policy
- EURO 4530: EU Social Policy
- EURO 4630: EU Communications Policy
- EURO 4730: EU Foreign Policy
- EURO 4760: EU-US Foreign Relations
- EURO 4830: EU in Comparative Perspective

Political Science

- POLS 4405: Comparative Legal Systems
- POLS 4430: International Law and Organization
- POLS 4435: Comparative Foreign Policy
- POLS 4448: Russian Politics and Culture
- POLS 4456: International Environmental Policy

Economics

- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance

Foreign Language

- FREN 3304: Literature and Culture I
- FREN 3305: Literature and Culture II
- ITAL 3304: Literature and Culture I
- ITAL 3305: Literature and Culture II
- GRMN 3304: Literature and Culture I
- GRMN 3305: Literature and Culture II
- SPAN 3304: Literature and Culture I
- SPAN 3305: Literature and Culture II

Geography

- GEOG 3320: Political Geography
- GEOG 3312: Geography of Europe
- GEOG 3330: Economic Geography

History

- HIST 3305: The World Since 1945
- HIST 4454: Twentieth Century Europe

Required Capstone Course (3 Credit Hours)

- POLS 4433: European Union Politics

Program Total (15 Credit Hours)

Film Studies Minor

Dorothy Kuykendal

Department of English

(470) 578-7531

<http://english.hss.kennesaw.edu/programs/minor-fs/>

The Minor in Film Studies provides a broad background in moving image media, art, and entertainment. Along with courses in film analysis, history, and theory, professional training is also offered at various levels in story development and scriptwriting for film and television. The minor offers interdisciplinary coursework that serves as a credential for students interested in graduate study or in working in the educational, commercial, or entertainment industries, whether locally, nationally, or internationally.

Required Course (3 Credit Hours)

- FILM 4200: Advanced Studies in Film

Select two of the following (6 Credit Hours)

- FILM 3200: Film History and Theory I
- FILM 3210: Film History and Theory II
- FILM 3220: Studies in Film

Select one of the following (3 Credit Hours)

- FILM 3105: Fundamentals of Writing for Film and Television
- FILM 3220: Studies in Film *
- FILM 4105: Advanced Writing for Film and Television
- FILM 4200: Advanced Studies in Film *
- MENT 4444: Film and Video Structure and Process
- TPS 3213: Acting for the Camera
- TPS 3703: Musical Theatre History and Literature
- FL 4490: Special Topics in Foreign Language
- Any 3000-4000 level film-based course taught in any other discipline at Kennesaw State University

Notes:

Because all minors require fifteen hours, a fifth course will be selected from the student's Area F requirements in consultation with the advisor for the minor.

*Can be taken a second time as the fourth course provided the course content differs entirely from the previous offering.

Program Total (15 Credit Hours)

French and Francophone Studies Minor

Advisor: Noah McLaughlin

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguages.hss.kennesaw.edu/programs/minor-french/>

The minor in French and Francophone Studies requires 15 hours of FREN course work at the level of 2002 or above. These 15 hours must include FREN 3200, FREN 3302, and FREN 3303. Advanced speakers should consult with a French advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

Program Total (15 credit hours)

Gender and the Workplace Certificate - Embedded

Letizia Guglielmo

Coordinator, Gender & Women's Studies

470-578-2431

<http://gwst.hass.kennesaw.edu>

The Certificate in Gender and the Workplace educates students regarding the numerous social, legal, and political implications of gender (and related issues such as race, socioeconomic class, and sexuality) that inevitably arise in the modern workplace. Students will take courses that focus specifically on issues connected to both regional and global workplace environments in their chosen careers, and they will participate in a colloquium allowing them to interact with local business leaders and mentors.

Required Courses

- GWST 2000: Introduction to Gender and Women's Studies
- GWST 3060: Gender in the Workplace
- GWST 4998: GWST Certificate Colloquium

Elective Courses

Select One.

- GWST 2050: Global Perspectives on Gender
- POLS 4416: Law and Gender
- NURS 4422: Women and Health
- NURS 4490: Special Topics in Nursing

Program Total (10 Credit Hours)

Students may substitute other courses at the discretion of the coordinator.

Gender and Women's Studies Minor

Letizia Guglielmo

Coordinator, Gender & Women's Studies

470-578-2431

<http://gwst.hass.kennesaw.edu>

The Gender & Women's Studies (GWST) minor is designed to increase students' awareness of the impact of changing gender roles. The program encourages students to understand and value diversity by exploring differences among people, promoting dialogue on issues of diversity, and providing service learning experiences in the community.

Required Courses (6 Credit Hours)

- GWST 2000: Introduction to Gender and Women's Studies
- GWST 4000: Research in Gender and Women's Studies

Electives (9 Credit Hours)

Select three additional GWST-prefixed courses.

Program Total (15 Credit Hours)

Geographic Information Science B.S.

Susan Kirkpatrick Smith, Department Chair

Bachelor of Science Degree

Department of Geography and Anthropology

College of Humanities and Social Sciences

<http://gis.hss.kennesaw.edu/>

(470) 578-2373

The Bachelor of Science degree program in Geographic Information Science (GISc) integrates Geographic Information Systems (GIS) technology with applied research domains. The GISc program aims at producing high caliber graduates who are well trained in the technology, theory, and application of GIS and information systems. Students receive fundamental knowledge of human and physical geography, along with specific content in one of two systems: environmental systems or urban systems. GISc provides students a set of skills to manipulate, analyze, assess, and visualize data by way of digital maps and/or map imagery to solve problems in areas like urban and regional design, marketing and industrial location, transportation, precision agriculture, forestry, environmental systems, engineering, epidemiology, emergency services, crime analysis, and utilities.

General Education (42 Credit Hours)

See listing of requirements.

Note: Students should see their advisor for specific general education requirements in their

concentration.

Lower Division Major Requirements (Area F) (16-18 Credit Hours)

Required (10 Credit Hours)

- GEOG 1130: World Regional Geography
- GEOG 1102: Earth from Above

- GEOG 1112: Weather and Climate
or
- GEOG 1113: Introduction to Landforms

Lower Division Concentration (6-8 Credit Hours)

(Choose one of the following concentrations):

Environmental Systems

- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

Urban Systems

- ANTH 1102: Introduction to Anthropology
- SOCI 1101: Introduction to Sociology

Major Requirements (39 Credit Hours)

Professional Skills Related Courses (12 Credit Hours)

- IS 2200: Information Systems and Communication

Choose three of the following:

- IS 3020: Application Development I
- IS 3100: Information Systems Management
- IS 3220: Global IS Project Management
- IS 3260: Web Development I
- IS 3280: Data Management

Upper Division Major Requirements (27 credit hours)

- GEOG 3305: Introduction to Cartographic Processes
- GEOG 3315: Introduction to Geographic Information Systems

- GEOG 2200: Research Methods
- GEOG 4405: Advanced Geographic Information Systems
- GEOG 4410: Introduction to Remote Sensing
- GEOG 4499: Senior Seminar in Geography
- GEOG 4500: Advanced Topics in Geospatial Science
- GIS 3398: Internship

Major Concentration (15 Credit Hours)

(Select one concentration):

Environmental Systems

- STAT 3125: Biostatistics

Choose four of the following courses:

- BIOL 3370: Ecology
- ENVS 3730: Natural Resource Management
- GEOG 3700: Introduction to Environmental Studies
- GEOG 3370: Geography of Latin America and the Caribbean
- GEOG 3710: Local & Global Sustainability
- GEOG 3800: Climatology
- GEOG 3900: Biogeography
- POLS 3356: U.S. Environmental Policy & Politics
- POLS 4456: International Environmental Policy

Urban Systems

- GEOG 3300: Urban Geography

Choose four of the following courses:

- ANTH 3307: Cultural Anthropology
- AMST 3750: Place in American Culture
- GEOG 3320: Political Geography
- GEOG 3330: Economic Geography
- GEOG 3340: Cultural Geography
- GEOG 3710: Local & Global Sustainability
- POLS 4412: Urban Affairs and Problems
- SOCI 4432: Criminology

Free Electives (6-8 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing requirements.

Graduation Credit Hour Total (123 Credit Hours)

Geographic Information Sciences Certificate - Stand-Alone and Embedded

*Susan Kirkpatrick Smith, Department Chair
Department of Geography and Anthropology
College of Humanities and Social Sciences
<http://gis.hss.kennesaw.edu/>
(470) 578-2373*

Geographic Information Sciences is a multidisciplinary certificate that considers fundamental questions related to the use of geographic information systems (GIS). GIS is computer-based mapping technologies that visualizes, edits, manipulates and analyzes spatial data and imagery for decision makers. GIS is an essential tool in understanding what is where, and is used in urban and regional design, marketing and industrial location, transportation, precision agriculture, forestry, environmental systems, engineering, emergency services, epidemiology, crime analysis, and utilities, among others. The Certificate can be completed in-class or online.

Students must earn a "B" or higher cumulative grade in all the required courses, with a "C" or higher grade in each course.

Applications for admission to the program are available in the Department of Geography and Anthropology.

Required Courses (9 Credit Hours)

- GEOG 3305: Introduction to Cartographic Processes
- GEOG 3315: Introduction to Geographic Information Systems
- GEOG 4405: Advanced Geographic Information Systems

Choose one from the following (3 Credit Hours):

- GEOG 4410: Introduction to Remote Sensing
- GEOG 4500: Advanced Topics in Geospatial Science

Required Capstone Course (3 Credit Hours)

- GIS 4415: Practicum in Geographic Information Systems

Program Total (15 Credit Hours)

Geography B.A.

Susan Kirkpatrick Smith, Department Chair

*Bachelor of Arts Degree
Department of Geography and Anthropology
College of Humanities and Social Sciences
(470) 578-2373*

The Bachelor of Arts in Geography provides students with an understanding of various aspects of the Earth, including its physical features, the role of humans in modifying the Earth, and the relationships between peoples and places.

General Education (42 Credit Hours)

It is required that Geography majors complete GEOG 1112 OR GEOG 1113 with a grade of C or higher. It must be taken as a free elective if not taken in Area D. It is recommended that students take MATH 1107 Elementary Statistics in Area D of the General Education Program.

See listing of requirements

- GEOG 1112: Weather and Climate
or -
- GEOG 1113: Introduction to Landforms

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ANTH 1102: Introduction to Anthropology
or
- GEOG 1101: Introduction to Human Geography
or
- GEOG 1130: World Regional Geography

- GEOG 1102: Earth from Above
- Select one 1000- or 2000- level course from GEOG or related disciplines (ANTH, AADS, AMST, ASIA, ENVS, FL, GWST, HIST, LALS, PAX, PHIL, POLS, PSYC, RELS, SOC, or STS). (3 credit hours)
- GEOG 2200: Research Methods

- FL 2001: Intermediate Foreign Language and Culture I
or
- SOCI 1101: Introduction to Sociology (if FL 2001 satisfied under General Education requirements)

- FL 2002: Intermediate Foreign Language and Culture II

Upper Division Major Requirements (27 Credit Hours)

Major Requirements (6 Credit Hours)

Select two (2) Courses:

- GEOG 3398: Internship

or

- GEOG 4100: Directed Applied Research
- GEOG 4499: Senior Seminar in Geography

Select a total of 7 Courses (21 Credit Hours):

Choose two courses from Group A listed below. Choose one course from Group B listed below. Choose any four courses from Groups A, B, C, and/or D listed below.

Group A: Human/Regional Geography

- GEOG 3300: Urban Geography
- GEOG 3310: Historical Geography
- GEOG 3312: Geography of Europe
- GEOG 3320: Political Geography
- GEOG 3330: Economic Geography
- GEOG 3340: Cultural Geography
- GEOG 3350: Geography of Sub-Saharan Africa
- GEOG 3360: Geography of Asia
- GEOG 3370: Geography of Latin America and the Caribbean
- GEOG 3380: Geography of North America
- GEOG 3390: Geography of the Middle East and North Africa

Group B: Physical/Environmental Geography

- GEOG 3700: Introduction to Environmental Studies
- GEOG 3800: Climatology
- GEOG 3850: Global Climate Change
- GEOG 3900: Biogeography
- GEOG 4700: Geomorphology

Group C: Geographic Techniques

- GEOG 3305: Introduction to Cartographic Processes
- GEOG 3315: Introduction to Geographic Information Systems
- GEOG 4405: Advanced Geographic Information Systems
- GEOG 4410: Introduction to Remote Sensing

Group D: Miscellaneous Courses

- Study Abroad 3000-4000 level (any subject)
- GEOG 4490: Special Topics in Geography

Related Studies (18 Credit Hours)

Upper-division studies beyond the major requirements as approved by the academic advisor.

Free Electives (15 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements

Graduation Credit Hour Total (123 Credit Hours)

Geography Minor

Susan Kirkpatrick Smith

Department of Geography and Anthropology

(470) 578-2373

<http://www.kennesaw.edu/sga/geogminor.html>

The Minor in Geography gives students the opportunity to obtain a geographic or spatial perspective on a variety of issues. Students who understand geography are capable of evaluating the complicated relationship between human communities and the natural environment. Three of geography's major themes are human-environmental interaction, regions of the world, and questions of location. Geographers analyze processes, systems, and behaviors that have spatial expression. Students will learn to apply their knowledge of patterns, distributions, allocations, and circulations towards solving problems in their chosen field of endeavor, be it in the public sector, private sector, or the academe.

Required Course (3 Credit Hours)

- GEOG 1101: Introduction to Human Geography
or
- GEOG 1130: World Regional Geography

Any Four Upper-Division Geography Courses (12 Credit Hours)

Students may take any four courses with a GEOG prefix at the 3000- or 4000-level.

Program Total (15 Credit Hours)

German Studies Minor

Advisors: Susanne Kelley or Sabine Smith

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguages.hss.kennesaw.edu/programs/minor-german/>

The minor in German Studies requires 15 hours of GRMN course work at the level of 2002 or above. These 15 hours must include GRMN 3200, GRMN 3302, and GRMN 3303. Advanced speakers should consult with a German advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

Gerontology Minor

Dawn Baunach

Department of Sociology and Criminal Justice

470-578-6739

<http://scj.hss.kennesaw.edu/programs/minor-gerontology/>

Required Courses (9 Credit Hours)

- SOCI 1101: Introduction to Sociology
- SOCI 3310: Introduction to Gerontology
- SOCI 3320: Exploring the Aging Network

Select two of the following (6 Credit Hours)

- HS 3700: Aging and the Family
- HS 3750: Death, Dying and Bereavement
- SOCI 4443: Medical Sociology

Program Total (15 Credit Hours)

History B.A.

The program of study in history offers a Bachelor of Arts degree. All majors complete several "major requirements" which provide needed background in research and writing, in the theory of the discipline, and in the various fields of history. Students must also complete a capstone experience including two research seminars. Students needing a writing sample or other credential for career advancement or graduate study can complete a Senior Thesis. A degree in history is useful to students interested in careers involving critical thinking, research and oral and written communication. It serves as a prerequisite for graduate study in a number of fields, including history and many other social science disciplines, education, law, and theology. A degree in history prepares students for careers in government, the international arena, law, theology, business, non-profit work, as well as for graduate study.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Must pass with a grade of "C" or better.

- HIST 1111: Pre-Modern World History
or
- HIST 1112: Modern World History
- HIST 2111: United States History to 1877

or

- HIST 2112: United States History Since 1877
- HIST 2206: Origins of Great Traditions
- FL 2001: Intermediate Foreign Language and Culture I
- FL 2002: Intermediate Foreign Language and Culture II
- GEOG 1130: World Regional Geography

Upper Division Major Requirements (9 Credit Hours)

Must pass with a grade of "C" or better.

- HIST 3100: Historical Methods
- Any two Research Seminars:
 - ◇ HIST 4495: Research Seminar in US History
 - ◇ HIST 4496: Research Seminar in European History
 - ◇ HIST 4497: Research Seminar in non-Western History
 - ◇ HIST 4498: Research Seminar in World Historyor
 - ◇ One Research Seminar from List Above
 - and
 - ◇ HIST 4499: Senior Thesis in History

Upper Division Content Courses (39 Credit Hours)

Must pass with a grade of "C" or better.

I. Non-Western History Courses (6 Credit Hours)

Choose at least two:

- HIST 3305: The World Since 1945
- HIST 3334: The Africans in the Diaspora
- HIST 3357: Africans in Asia
- HIST 3358: Africans in Latin America and the Caribbean
- HIST 3366: History of Mexico and Central America
- HIST 3367: History of Brazil
- HIST 3372: Ancient to Pre-Modern China
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3375: Silk Road
- HIST 3379: Central Asia in World History
- HIST 3380: Premodern Japan
- HIST 3381: Modern Japan
- HIST 3382: North Africa and Middle East in Modern Times
- HIST 4905: History of the Atlantic World

- HIST 3391: History of West Africa
- HIST 3392: History of Southern, Eastern and Central Africa
- HIST 4391: Emerging Themes in African History
- HIST 4453: World War I
- HIST 4456: World War II
- HIST 4475: War and Revolution in Southeast Asia
- HIST 4490: Special Topics in History (as appropriate)

II. European History Courses (6 Credit Hours)

Choose at least two:

- HIST 3337: Greek and Roman History
- HIST 4558: The Holocaust
- HIST 3350: England to 1688
- HIST 3351: Modern England
- HIST 4640: Modern Ireland
- HIST 3360: Russian Empire to 1917
- HIST 3361: Themes in Slavic and Eastern European Studies
- HIST 4428: The Third Reich
- HIST 4440: Medieval Europe
- HIST 4442: History of Religious Tolerance
- HIST 4444: Renaissance and Reformation Europe
- HIST 4445: Age of Enlightenment
- HIST 4454: Twentieth Century Europe
- HIST 4455: Twentieth Century Russia
- HIST 4490: Special Topics in History (as appropriate)

III. U.S. History Courses (6 Credit Hours)

Choose at least two:

- HIST 3304: History of Georgia
- HIST 3310: The Old South
- HIST 3311: The New South
- HIST 4204: The History of the American West
- HIST 4255: Diplomatic History of the United States
- HIST 3331: History of Religion in the U.S.
- HIST 4251: U.S. Social and Cultural History
- HIST 3333: African American History to 1865
- HIST 3335: African American History, 1865 to Present
- HIST 3340: U.S. Military Experience
- HIST 3341: Women in U.S. History and Culture
- HIST 4245: Business & Economic History of United States
- HIST 4163: The United States between the World Wars
- HIST 4410: Colonial America to 1763

- HIST 4411: The American Revolution
- HIST 4412: The Early Republic
- HIST 4415: Jacksonian America
- HIST 4451: Civil War and Reconstruction
- HIST 4461: Gilded Age & Progressive Era
- HIST 4471: Recent United States History
- HIST 4490: Special Topics in History (as appropriate)

IV. 3000-4000 Level History Courses (3-6 Credit Hours)

At least one but no more than two 3000-4000 level History courses from the list above plus:

- HIST 3325: Introduction to Public History
- HIST 3326: Historic Preservation
- HIST 3327: Architectural History
- HIST 3328: Introduction to Archives and Records Management
- HIST 3376: Historiographical Debates
- HIST 3377: History of Science
- HIST 3378: History of Technology
- HIST 4911: Themes in American Environmental History
- HIST 4425: Oral History
- HIST 4426: Documentation and Interpretation of Historic Sites
- HIST 4430: Museum Studies
- HIST 4435: History and Memory
- HIST 4490: Special Topics in History (as appropriate)
- HIST 3398: Internship
- HIST 3396: Cooperative Study
- HIST 4400: Directed Study

V. Minor, Certificate Program or Related Studies (15-18 Credit Hours)

Upper-level courses in appropriate minor, certificate program or related disciplines, in consultation with advisor. Students are encouraged to enroll in an internship or study abroad experience.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

History Education B.S.

Leading to Certification for Grades 6-12

Bryan McGovern

College of Humanities and Social Sciences

Department of History & Philosophy

(470) 578-6294

<http://hp.hss.kennesaw.edu/programs/bshe/>

This program is designed to prepare teachers of adolescents, largely at the secondary school level. It leads to 6-12 teacher certification in the teaching field of history in Georgia. Candidates complete the equivalent of a major in history and a second major in pedagogical studies. Candidates concentrate in history as this is the principal social science discipline in the secondary education curriculum and take additional course work in several other social science disciplines as part of their cross-disciplinary teaching field preparation.

The B.S. in History Education is fully accredited by the National Council for Accreditation of Teacher Education (NCATE), is fully approved by Georgia's Professional Standards Commission for teacher certification, and is nationally recognized by the National Council for the Social Studies (NCSS).

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- GEOG 1130: World Regional Geography
- HIST 2111: United States History to 1877
- HIST 1112: Modern World History
- HIST 2206: Origins of Great Traditions

Teaching Field Requirements (37 Credit Hours)

Must pass with a grade of "C" or better.

Courses to be chosen with advisor. One of these history courses must be a research seminar (HIST 4495, HIST 4496, HIST 4497, or HIST 4498).

American History (6 Credit Hours)

Choose two:

- HIST 3310: The Old South
- HIST 3311: The New South
- HIST 4204: The History of the American West
- HIST 4255: Diplomatic History of the United States

- HIST 3331: History of Religion in the U.S.
- HIST 4251: U.S. Social and Cultural History
- HIST 3333: African American History to 1865
- HIST 3335: African American History, 1865 to Present
- HIST 3340: U.S. Military Experience
- HIST 3341: Women in U.S. History and Culture
- HIST 4245: Business & Economic History of United States
- HIST 4410: Colonial America to 1763
- HIST 4411: The American Revolution
- HIST 4412: The Early Republic
- HIST 4415: Jacksonian America
- HIST 4451: Civil War and Reconstruction
- HIST 4461: Gilded Age & Progressive Era
- HIST 4163: The United States between the World Wars
- HIST 4471: Recent United States History
- HIST 4490: Special Topics in History (as appropriate)

European History (3 Credit Hours)

Choose one:

- HIST 3337: Greek and Roman History
- HIST 4558: The Holocaust
- HIST 3350: England to 1688
- HIST 3351: Modern England
- HIST 4640: Modern Ireland
- HIST 3360: Russian Empire to 1917
- HIST 3371: Modern Europe
- HIST 3377: History of Science
- HIST 4440: Medieval Europe
- HIST 4444: Renaissance and Reformation Europe
- HIST 4445: Age of Enlightenment
- HIST 4453: World War I
- HIST 4454: Twentieth Century Europe
- HIST 4455: Twentieth Century Russia
- HIST 4456: World War II
- HIST 4490: Special Topics in History (as appropriate)

Non-Western World Studies (6 Credit Hours)

Choose two:

- HIST 3334: The Africans in the Diaspora
- HIST 3357: Africans in Asia
- HIST 3358: Africans in Latin America and the Caribbean
- HIST 3366: History of Mexico and Central America

- HIST 3367: History of Brazil
- HIST 3372: Ancient to Pre-Modern China
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3379: Central Asia in World History
- HIST 3380: Premodern Japan
- HIST 3381: Modern Japan
- HIST 3382: North Africa and Middle East in Modern Times
- HIST 4905: History of the Atlantic World
- HIST 3391: History of West Africa
- HIST 3392: History of Southern, Eastern and Central Africa
- HIST 4475: War and Revolution in Southeast Asia
- HIST 4391: Emerging Themes in African History
- HIST 4490: Special Topics in History (as appropriate)

Specifically-Required History Courses (9 Credit Hours)

- HIST 3304: History of Georgia
- HIST 4488: Approaches to World History
- HIST 3100: Historical Methods

Political Science (3 Credit Hours)

- POLS 3300: U.S. Constitution and Courts

Economics (3 Credit Hours)

- ECON 2100: Principles of Microeconomics

Specifically Required Geography Course (3 Credit Hours)

- GEOG 3340: Cultural Geography

Geography (3 Credit Hours)

Choose one:

- GEOG 3300: Urban Geography
- GEOG 3310: Historical Geography
- GEOG 3312: Geography of Europe
- GEOG 3320: Political Geography
- GEOG 3330: Economic Geography
- GEOG 3350: Geography of Sub-Saharan Africa
- GEOG 3360: Geography of Asia
- GEOG 3370: Geography of Latin America and the Caribbean
- GEOG 3380: Geography of North America
- GEOG 3700: Introduction to Environmental Studies
- GEOG 4490: Special Topics in Geography (as appropriate)

Professional Education (6-12) Requirements (31 Credit Hours)

Must be admitted to Teacher Education and History Education before taking these courses.

- EDUC 2130: Exploring Teaching and Learning
- HIST 3271: Introduction to History Education
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- ITEC 3300: Improving Learning with Technology in High School Classrooms
- INED 4435: Foundations of Teaching Adolescent English Learners
- INED 4436: Foundations of Teaching Adolescent English Learners II
- HIED 4550: Methods of History Education
- HIED 4650: Yearlong Clinical Experience I
- HIED 4660: Yearlong Clinical Experience II
- EDUC 4610: Introduction to the Yearlong Clinical Experience

Program Total (128 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (131 Credit Hours)

History Minor

Alice Pate

Department of History and Philosophy

(470)578-6294

<http://hp.hss.kennesaw.edu/programs/minor-history/>

To earn a minor in History students must complete History 2206 (Origins of the Great Traditions) plus twelve (12) hours of History courses at the 3000 or 4000 level. Prerequisites for individual courses can be found in the course description section of the undergraduate catalog. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

Program Total (15 Credit Hours)

Interactive Design, B.S.

Department of Technical Communication and Interactive Design

College of Humanities and Social Sciences

Marietta Campus-Atrium Building, J333

470-578-7202 or tcid@kennesaw.edu

The Bachelor of Science in Interactive Design provides students with an interdisciplinary, hands-on approach to developing the technical, theoretical, and creative skills needed to serve in the

field of interactive design as visual designers, user interface designers, and data visualization designers. This approach to design merges technical knowledge and aesthetic creativity with an ultimate focus on the human needs of end users. Students will cross-pollinate a strong foundation in creative expression through courses in the School of Art and Design with theoretical and technical approaches to front-end digital design and culture. The emphasis here is on creating well-rounded designers that are suited to meet the growing marketplace need for interactive design.

Student Learning Outcomes for Interactive Design:

- Explain "design thinking" through reading, writing, and discussion.
- Design creative and technical work for your professional portfolio.
- Defend your creative and technical work through written and oral critiques.
- Assemble a professional portfolio for your creative and technical work.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (19 Credit Hours)

- DWMA 2170: Introduction to Digital Media and Culture
- ART 1100: Two-Dimensional Design and Color Theory
- ART 1150: Drawing I
- ART 2150: Drawing II
- ART 2550: Computer Applications in Art
- CS 130I: Programming Principles I
or
- CSE 130I: Programming and Problem Solving I

Upper Division Major Requirements (18 Credit Hours)

- INDS 3000: Visual Design: Theory
- INDS 3150: Visual Design I
- INDS 3230: User Interface Design I
- DWMA 3400: Front-End Development I
- INDS 4700: Visual Design: Senior Project
- DWMA 4800: Project Portfolio

Upper Division Electives (18 Credit Hours)

Choose six of the following:

- INDS 3100: Visual Design: History
- INDS 3300: Ethnography for Designers
- INDS 3350: Information Visualization I
- INDS 3398: Internship
- INDS 4150: Visual Design II

- INDS 4230: User Interface Design II
- INDS 4400: Directed Study
- INDS 4490: Special Topics in Interactive Design
- DWMA 3800: Front-End Development II
- DWMA 4500: Front-End Development III
- ART 3011: Typography I
- ART 3015: Electronic Illustration
- ART 3020: Typography II
- ART 4024: Motion Graphics

Related Studies (12 Credit Hours)

Select 12 hours of upper division course work (3000 - 4000 level) outside of the Interactive Design Major. These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal.

Students should determine prerequisites for Related Studies courses and take them as free electives.

Completion of a Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

Students must pass with a C or better.

Free Electives (11 Credit Hours)

Select 11 credit hours of courses in the university curriculum. This includes any course (1000 - 4000) in the university curriculum (including Interactive Design) passing with a D or better. Students may combine 1 or 2 hour courses to total 11 hours total in this section.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements

Graduation Credit Hour Total (123 Credit Hours)

International Affairs B.A.

Bachelor of Arts Degree

College of Humanities and Social Sciences, Department of Political Science and International Affairs

(470) 578-6227

The program of study in International Affairs leads to a Bachelor of Arts degree. The degree plays an integral role in the Department of Political Science and International Affairs and draws upon disciplines such as political science, economics, history, foreign language, geography and anthropology. In this interdisciplinary major, the student must complete five required upper

division major courses including the senior seminar followed by five courses in one of the four major concentrations.

Firsthand international experiences can be acquired through a coop/internship option or study abroad programs. This degree prepares graduates for careers in business, nonprofit organizations, law or government service.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Foreign Languages (The 2001-2002 sequence must be taken in a single foreign language) (6 Credit Hours) All IA Majors must take either ECON 2200: Principles of Macroeconomics or POLS 240I: Global Issues. Concentration II students MUST take ECON 2200. Concentration I, III, and IV students may take either ECON 2200 or POLS 240I.

- POLS 2240: Introduction to Comparative Politics
- POLS 2250: Introduction to International Relations

- POLS 2280: Research Methods
or
- ACCT 2100: Introduction to Financial Accounting
or
- ECON 2300: Business Statistics

- ECON 2100: Principles of Microeconomics (Counted in General Education)

- ECON 2200: Principles of Macroeconomics
or
- POLS 240I: Global Issues

Lower Division Career Program (3 Credit Hours)

- POLS 2230: Careers in International Affairs

Upper Division Major Requirements (15 Credit Hours)

Students shall complete five courses from those listed below; one of which MUST be POLS 4499 Senior Seminar.

- HIST 3305: The World Since 1945
- POLS 3350: American Foreign Policy
- POLS 4423: Great Political Thinkers
- POLS 4430: International Law and Organization
- POLS 4436: Politics of Developing Areas
- POLS 4437: Global Security
- POLS 4438: International Political Economy

- POLS 4499: Senior Seminar

Related Studies (15 Credit Hours)

Upper-division studies beyond the major requirements as approved by the academic advisor. Students are encouraged to complete a minor and/or certificate (these credits may count toward both Related Studies and towards a minor/certificate).

Major Concentration (15 Credit Hours)

Students will take five courses in their concentration. For Concentration I, select five courses, two (2) of which must be POLS. For Concentration II, select five courses, two (2) of which must be POLS. For Concentration III, students should select a language track (e.g., French, Italian, Spanish, German, Chinese) and complete five upper-division courses in that language.

Concentration I: Diplomatic and Government Service

- ANTH 3350: Cultures and Societies of the World
- ANTH 3307: Cultural Anthropology
- EURO 4730: EU Foreign Policy
- EURO 4760: EU-US Foreign Relations
- EURO 4830: EU in Comparative Perspective
- GEOG 3312: Geography of Europe
- GEOG 3320: Political Geography
- GEOG 3350: Geography of Sub-Saharan Africa
- GEOG 3360: Geography of Asia
- GEOG 3370: Geography of Latin America and the Caribbean
- HIST 4255: Diplomatic History of the United States
- HIST 3334: The Africans in the Diaspora
- HIST 3366: History of Mexico and Central America
- HIST 3367: History of Brazil
- HIST 3373: Modern India and South Asia
- HIST 3374: Modern China
- HIST 3382: North Africa and Middle East in Modern Times
- HIST 3391: History of West Africa
- HIST 3392: History of Southern, Eastern and Central Africa
- HIST 4454: Twentieth Century Europe
- HIST 4455: Twentieth Century Russia
- POLS 4000: Practicum in Political Science and International Affairs
- POLS 4431: Politics of International Terrorism
- POLS 4448: Russian Politics and Culture
- POLS 4449: Russian Foreign Policy
- POLS 4452: Politics of the Pacific Rim
- POLS 4453: Latin America: Democracy and Development
- POLS 4454: Politics of the Middle East
- POLS 4455: International Relations of Africa

- POLS 4457: South Asian Politics: A Comparative Perspective
- PSYC 3355: Cross-Cultural Psychology

Concentration II: International Business, Economics and Policy

- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance
- EURO 3234: Introduction to the European Union
- EURO 4130: EU Law & Legal Systems
- EURO 4160: Federalism & Multilevel Governance
- EURO 4230: Doing Business in the EU
- EURO 4260: European Monetary Union
- EURO 4330: EU Science & Technology Policy
- EURO 4430: EU Environmental Policy
- EURO 4530: EU Social Policy
- EURO 4630: EU Communications Policy
- GEOG 3330: Economic Geography
- HIST 3374: Modern China
- HIST 3381: Modern Japan
- MGT 3600: Introduction to International Business
- MGT 4174: International Human Resource Management
- MGT 4190: International Management
- MGT 4476: Contemporary Global Business Practices
- MKTG 4476: Contemporary Global Business Practices
- MKTG 4820: International Marketing
- NURS 4423: International Health Policy
- POLS 3350: American Foreign Policy
- POLS 4000: Practicum in Political Science and International Affairs
- POLS 4433: European Union Politics
- POLS 4438: International Political Economy
- POLS 4439: Political Economy of Russia and Central Asia in Transition
- POLS 4452: Politics of the Pacific Rim
- POLS 4456: International Environmental Policy
- PSYC 3355: Cross-Cultural Psychology

Concentration III: Applied Languages

- CHNS 3200: Critical Reading and Applied Writing
- CHNS 3302: Practical Conversation
- CHNS 3303: Grammar and Composition
- or
- FREN 3200: Critical Reading and Applied Writing
- FREN 3302: Practical Conversation
- FREN 3303: Grammar and Composition
- or

- GRMN 3200: Critical Reading and Applied Writing
- GRMN 3302: Practical Conversation
- GRMN 3303: Grammar and Composition
- or
- ITAL 3200: Critical Reading and Applied Writing
- ITAL 3302: Practical Conversation
- ITAL 3303: Grammar and Composition
- or
- SPAN 3200: Critical Reading and Applied Writing
- SPAN 3302: Practical Conversation
- SPAN 3303: Grammar and Composition

Notes:

Students may complete up to six credit hours of POLS 4000 Practicum in Political Science and International Affairs in lieu of upper-division elective courses.

- Any 3000- or 4000-level course within your selected language track
- POLS 4000: Practicum in Political Science and International Affairs

Concentration IV: Applied Global Experience

Students will complete a full-time study abroad program of ten weeks or more. Full-time status will be based upon the criteria set by host institution. Courses must be pre-approved by your International Affairs advisor and by the PSIA department chair prior to departure.

Note:

Students should be mindful of the 39 credit hour university requirement for upper-division courses when making course selections.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

International Affairs Minor

Department of Political Science and International Affairs
(470) 578-6227

<http://psia.hss.kennesaw.edu/programs/minor-ia/>

The International Affairs Minor is designed to provide undergraduate students exposure to the

analytical tools and substantive knowledge necessary to make sense of an increasingly complex global environment. The curriculum is flexible enough to engage a wide range of interests. Students can focus on particular geographic regions, including Africa, Asia, Latin America, Europe, and the Middle East. Alternatively, they can focus on substantive issues, such as development, security, or the politics of international economic relations.

Required Courses (6 Credit Hours)

- POLS 2240: Introduction to Comparative Politics
- POLS 2250: Introduction to International Relations

Elective Courses (9 Credit Hours)

Elective courses must be selected from among those fulfilling IA major upper-division, concentration I and/or concentration II requirements. At least six hours of elective coursework must be in political science. For a complete list of courses, see the PSIA department webpage at <http://psia.hss.kennesaw.edu/programs/baia/>

Program Total (15 credit hours)

Italian Studies Minor

Advisors: Federica Santini or Renata Creekmur

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguages.hss.kennesaw.edu/programs/minor-italian/>

The minor in Italian requires 15 hours of ITAL course work at the level of 2002 or above. These 15 hours must include ITAL 3200, ITAL 3302, and ITAL 3303. Advanced speakers should consult with an Italian advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

Program Total (15 Credit Hours)

Journalism and Emerging Media B.S.

The Journalism and Emerging Media major offers a professionally-focused, marketplace-relevant, and theoretically-rigorous program. It includes courses in news writing, media law, digital media production, sports reporting, investigative reporting, and community-based capstone experience. It encourages students to enroll in a for-credit internship. To be eligible to apply to a major in Journalism and Emerging Media, students must meet the School of Communication & Media (SOCM) sophomore GPA requirement of 2.75, pass the SOCM Entrance Exam (three attempts), and be accepted.

General Education (42 Credit Hours)

see listing of requirements

Lower Division Major Requirements (Area F) (18 Credit Hours)

- COM 2020: CSI: Communication Sources and Investigations
- COM 2129: Public Speaking
- COM 2033: Visual Communication
- COM 2135: Writing for Public Communication
- COM 2240: Communication Law, Ethics and Diversity
- COM 2230: Introduction to Mass Communication

Upper Division Major Requirements: (21 Credit Hours)

- JOUR 3330: News Reporting and Writing
- JOUR 3340: Digital Media Production
- JOUR 4420: Advanced Media Writing
- JOUR 4470: Media Law
- JOUR 4488: Multi-Media Visions of Community (Capstone)
- COM 3435: Communication Research Methods
- COM 4480: Communication Theory

Advanced Digital Journalism (3 Credit Hours)

Select one of the following:

- JOUR 3360: Photojournalism
- JOUR 4445: Advanced Digital Audio Production
- JOUR 4450: Video News Production

Advanced Journalism Writing: (3 Credit Hours)

Select one of the following:

- JOUR 4410: Investigative Reporting
- JOUR 4412: Sports Reporting
- JOUR 4300: Topics in Journalism

Advanced Journalism Professional Practice: (3 Credit Hours)

Select one of the following:

- COM 3350: Editing for Today's Media
- JOUR 3395: Journalism Study Tour
- COM 3398: Internship in Communication
- PR 4605: Magazine Media

Upper Division Electives (6 Credit Hours)

Students may choose from any SOCM course not previously taken. The list below provides recommended electives for Journalism and Emerging Media majors. Please take into account

any prerequisites required. (These courses may also be taken as Free Electives) Choose two of the following (6 credit hours) Any above course taken by a student does NOT count in this category.

- JOUR 3310: Concepts in New Media
- COM 3315: Interviewing
- COM 3350: Editing for Today's Media
- JOUR 3360: Photojournalism
- JOUR 4300: Topics in Journalism
- JOUR 4410: Investigative Reporting
- JOUR 4412: Sports Reporting
- JOUR 4445: Advanced Digital Audio Production
- JOUR 4450: Video News Production
- PR 4405: Digital Publication Design
- PR 4605: Magazine Media
- PR 4210: Social Media for Strategic Communication
- COM 3398: Internship in Communication
- COM 4490: Special Topics in Communication
- MENT 3100: Fundamentals of Media and Entertainment Studies
- MENT 3326: Global Media Systems
- MENT 4424: Uses and Effects of Mass Media
- MENT 4425: Gender, Race and Media
- MENT 4430: Media Management
- MENT 4436: Topics in Entertainment Studies
- MENT 4444: Film and Video Structure and Process
- MENT 4464: Documentary Filmmaking

Related Studies (12 Credit Hours)

Upper division course work (3000-4000 level) outside of the School of Communication & Media (SOCM). These hours do not have to be taken in a single discipline, but should relate to a particular interest or career goal. Students should determine needed prerequisites. Completion of Formal Minor or Certificate Program would also satisfy the Related Studies requirement.

Free Electives (12 Credit Hours)

Any course (1000-4000 level) in the university curriculum. Students must earn a grade of D or better.

Program Total: (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Language and Literary Studies Minor

Dorothy Kuykendal

Department of English

(470) 578-7531

<http://english.hss.kennesaw.edu/programs/minor-lls/>

The minor in language and literary studies cultivates the skills of critical reading and analysis. Students gain proficiency in research as well as in written and oral communication. The minor fosters the crucial ability to understand the complexity of our world and to engage with language in sophisticated ways. These skills prepare students for numerous careers and effectively supplement existing majors in other fields.

Select four of the following (12 Credit Hours)

- LING 3030: Studies in Grammar and Linguistics
- LING 3035: Introduction to Language and Linguistics
- LING 3040: History of the English Language
- ENGL 3230: Literary Genre
- ENGL 3232: Topics in Drama
- ENGL 3320: Scriptural Literature
- ENGL 3322: Hebrew Scriptures as Literature
- ENGL 3324: New Testament as Literature
- ENGL 3330: Gender Studies
- ENGL 3340: Ethnic Literatures
- ENGL 3350: Regional Literature
- ENGL 3360: Major African American Writers
- ENGL 3400: Survey of African Literatures
- ENGL 3500: Topics in African American Literature
- ENGL 3600: Topics in African Diaspora Literatures
- ENGL 4220: Critical Theory
- ENGL 4230: Theory-Based Studies in Literature
- ENGL 4340: Shakespeare
- ENGL 4360: American Literature Before 1800
- ENGL 4370: British Medieval and Chaucerian Literature
- ENGL 4372: British Renaissance Literature
- ENGL 4374: Studies in Restoration and Eighteenth-Century Literature
- ENGL 4380: World Literature Before 1800
- ENGL 4401: Topics in African Literatures
- ENGL 4460: 19th-Century American Literature
- ENGL 4470: 19th-Century British Literature
- ENGL 4480: 19th-Century World Literature
- ENGL 4560: 20th-Century American Literature
- ENGL 4570: 20th-Century British Literature
- ENGL 4580: 20th-Century World Literature

Note:

Because all minors require fifteen hours, a fifth course will be selected from the student's Area F requirements in consultation with the advisor for the minor.

Program Total (15 Credit Hours)

Latin American Studies Certificate - Embedded

*College of Humanities and Social Sciences
Department of Foreign Languages
Campus coordinator: Lynn Fedeli
(470) 578-6366
<http://foreignlanguages.hss.kennesaw.edu/>*

A collaborative program of the University System of Georgia and the Americas Council, the Certificate in Latin American Studies offers a common curriculum open to all university system institutions. The course of study is designed to be interdisciplinary and complementary to existing undergraduate programs. Students from all majors who hold a 2.80 GPA are eligible to participate. A student may formally apply to enroll in the program after successful completion of thirty hours of academic credit.

Language Area

Six hours of Spanish or French at the 3000-level or above with a minimum grade of "C". These hours may be taken as part of an approved study abroad program as long as the course is beyond the intermediate level.

OR

Demonstration of written and oral proficiency in Spanish, Portuguese, French, Haitian Creole, or Quechua. Demonstration of language proficiency above the intermediate level as defined by ACTFL standards through examination, or successful completion of an oral and written examination evaluated by a qualified University System of Georgia faculty member (for Haitian Creole and Quechua)

Latin American Area

(students must complete the following course work)

One 3 (three) hour course which focuses on contemporary Latin America or a three-hour course on Latin American Culture and Civilization. Three courses (nine hours) in Latin American Studies, two of which must be outside the student's major, from the following options:

- Any Latin American upper division courses offered in the University System of Georgia
- Six hours may come from courses that have a minimum 25% Latin American component
- No more than 6 (six) hours from study abroad or internships.

NOTE: All courses, study abroad programs and internships must be approved by the Campus Certificate in Latin American Studies Coordinator. All courses require a grade of C (2.0) or better. No more than one course may be taken at the 1000-2000 level.

Program Total (18 Credit Hours)

Latin American/Latino Studies Minor

Gabriel Soldatenko

Coordinator, Latin American/Latino Studies

(470) 578-2431

<http://lals.hss.kennesaw.edu/program/>

The Minor in Latin American Studies provides a solid foundation for understanding contemporary Latin American society. To achieve this goal, this minor offers a range of courses in history, political science, art, and language. You will also be permitted to take appropriate directed studies, special topics, or study abroad courses. The minor will be especially useful to students who seek to enhance their study of the Spanish or Portuguese language with knowledge of this world region.

Required Course (3 Credit Hours)

- LALS 3780: Trends in Latin American/Latino Studies

Select one or two of the following (3-6 Credit Hours)

One of these two classes are required

- HIST 3366: History of Mexico and Central America
- GEOG 3370: Geography of Latin America and the Caribbean

Select two or three of the following (6-9 Credit Hours)

- ANTH 3380: Maya Archeology
- ARH 3250: Latin American Art and Architecture
- GEOG 3370: Geography of Latin America and the Caribbean
- HIST 3358: Africans in Latin America and the Caribbean
- HIST 3366: History of Mexico and Central America
- HIST 3367: History of Brazil
- ISD 3333: Year of _____ in Interdisciplinary Context I
- ISD 3334: Year of _____ in Interdisciplinary Context II
- ISD 3398: Interdisciplinary Studies Internship
- LALS 3770: Latin American Cinema
- LALS 4490: Special Topics in Latin American/Latino Studies
- PHIL 3210: Latin American and Caribbean Philosophy
- POLS 4436: Politics of Developing Areas
- POLS 4453: Latin America: Democracy and Development
- PORT 3304: Introduction to Lusophone Literatures and Cultures
- SA 4400: Study Abroad Directed Study
- SA 4490: Upper-division Study Abroad

- SPAN 3304: Literature and Culture I
- SPAN 3305: Literature and Culture II
- SPAN 3398: Internship

Program Total (15 Credit Hours)

Legal Studies Minor

William Gillespie

Department of Political Science and International Affairs

(470) 578-6227

<http://psia.hss.kennesaw.edu/programs/minor-ls/>

Required Course (3 Credit Hours)

- POLS 3300: U.S. Constitution and Courts

Select four of the following (12 Credit Hours)

- BLAW 3400: Negotiation
- BLAW 4100: Advanced Business Law
- JOUR 4470: Media Law
- POLS 3315: American Constitutional Law: Federalism
- POLS 3320: Legal Research
- POLS 4405: Comparative Legal Systems
- POLS 4410: American Legal System
- POLS 4411: Criminal Law
- POLS 4415: Civil Liberties
- POLS 4416: Law and Gender
- POLS 4420: Judicial Process
- POLS 4466: Trial Procedure and Evidence
- POLS 4470: Alternative Dispute Resolution

Program Total (15 Credit Hours)

Linguistics Minor

Dorothy Kuykendal

Department of English

(470) 578-7531

The minor in linguistics deepens students' understanding of the nature of language. Linguistics addresses two fundamental questions: What is language? And how does it work? Courses in the minor explore issues such as language history, structure, and acquisition; dialects; literary language; and the relationship between language and society. The minor would be useful to students who want to pursue careers in fields such as teaching, advertising, communications,

computer applications, literature, law, government, and non-profit work.

Select four of the following (12 Credit Hours)

- ANTH 3303: Introduction to Linguistic Anthropology
- FL 2209: World Languages and Cultures
- FLED 4408: Second Language Acquisition
- FREN 4456: Advanced Grammar and Linguistics
- GRMN 4456: Advanced Grammar and Linguistics
- INED 4430: Applied Linguistics and English Language Literacy
- ITAL 4456: Advanced Grammar and Linguistics
- LING 3020: Linguistics and Literature
- LING 3025: Linguistics for Education
- LING 3030: Studies in Grammar and Linguistics
- LING 3035: Introduction to Language and Linguistics
- LING 3040: History of the English Language
- LING 3045: Grammar of Contemporary American English
- LING 3050: Sociolinguistics
- LING 3055: Politics and Language
- SPAN 4456: Advanced Grammar and Linguistics

Note:

A fifth course will be selected from the student's Area F requirements in consultation with the advisor for the professional writing minor.

Program Total (15 Credit Hours)

Lusophone Studies Minor

The Minor in Lusophone Studies is an interdisciplinary program consisting of 15 credit hours of coursework in Portuguese Language and Lusophone cultures, literature, and history. *A minimum of six (6) credit hours must be taken in residence at Kennesaw State University*

Please address questions to *Dr. Robert Simon*, Coordinator of Portuguese

Required Courses (9 Credit Hours)

Students must take the following courses or equivalents:

- PORT 2002: Intermediate Portuguese Language and Lusophone Cultures II
- PORT 3200: Advanced Reading and Writing in Portuguese
- PORT 3304: Introduction to Lusophone Literatures and Cultures

Elective Courses (6 Credit Hours)

In addition, students will need to complete at least two (2) courses from the following options, with exception to student who has passes the Advanced Standing Exam and/or is exempt from

PORT 2002. Those students will need to complete three (3) courses from the following options:

- ANTH 3365: Afro-Brazilian Culture and Politics
- FL 4400: Directed Study

Note: Directed Study must be related to Portuguese/Lusophone language, literature, and/or cultures. Please see the Coordinator of Portuguese about this option.

- HIST 3367: History of Brazil
- PORT 3302: Conversation in Portuguese
- SA 4490: Upper-division Study Abroad

Note: Study Abroad must be to a Portuguese-speaking country of region

Program Total (15 Credit Hours)

Military Leadership Minor

The Military Leadership Minor challenges cadets to study and practice adaptive leadership skills as they are presented with challenging scenarios related to garrison and tactical operations. The challenges increase throughout the minor courses to build cadet awareness and skills leading tactical operations up to a platoon level. They also conduct various styles of briefings to small and large audiences. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in Contemporary Operating Environments (COE). The upper-level courses develop individual proficiency in planning, executing, and assessing complex operations; functioning as a member of a staff and providing performance feedback to subordinates. Cadets assess risk, determine ethical decision making, evaluate and instruct cadets at lower levels. Furthermore, cadets will examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. The minor is designed to prepare cadets for their first assignment with case studies, scenarios, and exercises emphasized on practical demands of leading as commissioned officers in the United States Army.

Required Courses (16 Credit Hours)

The following courses must be completed in sequential order:

- MILS 3011: Adaptive Tactical Leadership
- MILS 3012: Leadership Change Environment
- MILS 4011: Developing Adaptive Leadership
- MILS 4012: Leaders Complex World

Program Total (16 Credit Hours)

Modern Language and Culture B.A.

Bachelor of Arts Degree

College of Humanities and Social Sciences

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguage.hss.kennesaw.edu/>

Speaking a second language and understanding other cultures are of strategic importance in a world in which international collaboration is not only necessary for political survival, but also indispensable for economic success. The B.A. in Modern Language and Culture prepares graduates who are able to communicate effectively in one or more foreign languages and have a keen understanding of how humans interact across world cultures. Graduates will be familiar with current global issues and possess the knowledge, skills, and versatility needed to succeed academically and professionally in an ever-changing society.

The B.A. in Modern Language and Culture is designed to develop students' communication skills and understanding of other cultures and to foster respect for difference and diversity in a global society. Students choose one of five primary languages - Chinese, French, German, Italian, or Spanish - in which they develop and refine language proficiency as well as cross-cultural competence. In the course of their studies, Modern Language and Culture majors acquire and practice the communication skills and cultural competence necessary to function effectively in a global society. The curriculum prepares degree candidates for future academic programs and professional careers in which foreign language proficiency and cultural knowledge are desirable or required or both.

The B.A. in Modern Language and Culture is fully accredited by NCATE (National Council for Accreditation of Teacher Education) and nationally recognized by ACTFL (American Council on the Teaching of Foreign Languages).

All majors must take an official Oral Proficiency Interview (OPI). In addition, majors choosing the "Teacher Certification in a Foreign Language" concentration must receive a minimum rating of "Advanced Low" to graduate and to receive a recommendation for certification. For information about the OPI, see <http://www.actfl.org>.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Select a primary language: Chinese, French, German, Italian, or Spanish.

- CHNS 200I: Intermediate Chinese Language and Culture I
or
- FREN 200I: Intermediate French Language and Culture I
or
- GRMN 200I: Intermediate German Language and Culture I
or
- ITAL 200I: Intermediate Italian Language and Culture I

- or
- SPAN 2001: Intermediate Spanish Language and Culture I
- CHNS 2002: Intermediate Chinese Language and Culture II
- or
- FREN 2002: Intermediate French Language and Culture II
- or
- GRMN 2002: Intermediate German Language and Culture II
- or
- ITAL 2002: Intermediate Italian Language and Culture II
- or
- SPAN 2002: Intermediate Spanish Language and Culture II
- FL 2209: World Languages and Cultures

Select three courses from one of the following concentrations:

Second Language and Culture

(the language chosen must be different from the primary language)

- CHNS 1002: Introduction to Chinese Language and Culture II
- or
- FREN 1002: Introduction to French Language and Culture II
- or
- GRMN 1002: Introduction to German Language and Culture II
- or
- ITAL 1002: Introduction to Italian Language and Culture II
- or
- PORT 1002: Introduction to Portuguese Language and Lusophone Cultures II
- or
- SPAN 1002: Introduction to Spanish Language and Culture II
(or higher)
- CHNS 2001: Intermediate Chinese Language and Culture I
- or
- FREN 2001: Intermediate French Language and Culture I
- or
- GRMN 2001: Intermediate German Language and Culture I
- or
- ITAL 2001: Intermediate Italian Language and Culture I
- or
- PORT 2001: Intermediate Portuguese Language and Lusophone Cultures I
- or
- SPAN 2001: Intermediate Spanish Language and Culture I

- CHNS 2002: Intermediate Chinese Language and Culture II
or
- FREN 2002: Intermediate French Language and Culture II
or
- GRMN 2002: Intermediate German Language and Culture II
or
- ITAL 2002: Intermediate Italian Language and Culture II
or
- PORT 2002: Intermediate Portuguese Language and Lusophone Cultures II
or
- SPAN 2002: Intermediate Spanish Language and Culture II (or higher)

OR Teacher Certification in Foreign Language

- FL 1001: Introduction to Foreign Language and Culture I * (or higher)
or
- CHNS 1001: Introduction to Chinese Language and Culture I *(or higher)
or
- FREN 1001: Introduction to French Language and Culture I * (or higher)
or
- GRMN 1001: Introduction to German Language and Culture I * (or higher)
or
- ITAL 1001: Introduction to Italian Language and Culture I * (or higher)
or
- SPAN 1001: Introduction To Spanish Language and Culture I * (or higher)

- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning

Note:

*Must be different from the Primary Language.

OR Applied Business

- ACCT 2100: Introduction to Financial Accounting

- ECON 2100: Principles of Microeconomics
or
- ECON 2200: Principles of Macroeconomics *

- BLAW 2200: Legal and Ethical Environment of Business

Note:

* If ECON 2100 already taken in General Education.

OR Cross-disciplinary Perspectives

(choose three of the following courses)

- ARH 2750: Ancient through Medieval Art
- GEOG 1101: Introduction to Human Geography
- HIST 2206: Origins of Great Traditions
- HS 2100: Overview of Human Services

Upper Division Required Core Courses (Chinese, French, German, Italian, or Spanish) (30 Credit Hours)

Chinese

- CHNS 3200: Critical Reading and Applied Writing
- CHNS 3302: Practical Conversation
- CHNS 3303: Grammar and Composition
- CHNS 3304: Readings in Culture I
- CHNS 3305: Readings in Culture II

- CHNS 3398: Internship (Completed in Chinese)
or
- CHNS 3390: Upper-division Study Abroad in Chinese

- CHNS 4404: Commercial Chinese
- CHNS 4434: Topics in Language, Literature, and Culture
- CHNS 4456: Advanced Grammar and Linguistics
- CHNS 4499: Senior Seminar

French

- FREN 3200: Critical Reading and Applied Writing
- FREN 3302: Practical Conversation
- FREN 3303: Grammar and Composition
- FREN 3304: Literature and Culture I
- FREN 3305: Literature and Culture II

- FREN 3398: Internship (completed in French)
or
- FREN 3390: Upper-division Study Abroad in French

- FREN 4402: Contemporary Culture
- FREN 4434: Topics in Language, Literature, and Culture
- FREN 4456: Advanced Grammar and Linguistics
- FREN 4499: Senior Seminar

German

- GRMN 3200: Critical Reading and Applied Writing
- GRMN 3302: Practical Conversation
- GRMN 3303: Grammar and Composition
- GRMN 3304: Literature and Culture I
- GRMN 3305: Literature and Culture II

- GRMN 3398: Internship (completed in German)
or
- GRMN 3390: Upper-division Study Abroad in German

- GRMN 4402: Contemporary Culture
- GRMN 4434: Topics in Language, Literature, and Culture
- GRMN 4456: Advanced Grammar and Linguistics
- GRMN 4499: Senior Seminar

Italian

- ITAL 3200: Critical Reading and Applied Writing
- ITAL 3302: Practical Conversation
- ITAL 3303: Grammar and Composition
- ITAL 3304: Literature and Culture I
- ITAL 3305: Literature and Culture II

- ITAL 3390: Upper-division Study Abroad in Italian
or
- ITAL 3398: Internship

- ITAL 4402: Contemporary Culture
- ITAL 4434: Topics in Language Literature and Culture
- ITAL 4456: Advanced Grammar and Linguistics
- ITAL 4499: Senior Seminar

Spanish

- SPAN 3200: Critical Reading and Applied Writing
- SPAN 3302: Practical Conversation
- SPAN 3303: Grammar and Composition
- SPAN 3304: Literature and Culture I
- SPAN 3305: Literature and Culture II

- SPAN 3398: Internship (completed in Spanish)
or
- SPAN 3390: Upper-division Study Abroad in Spanish

- SPAN 4402: Contemporary Culture

- SPAN 4434: Topics in Language, Literature, and Culture
- SPAN 4456: Advanced Grammar and Linguistics
- SPAN 4499: Senior Seminar

Other Requirements

Select one concentration I. Second Language and Culture II. Teacher Certification in Foreign Languages III. Applied Business IV. Cross-disciplinary Perspectives

Concentration I: Second Language and Culture (9 Credit Hours)

Select three 3000 level courses (or higher) within your second language (Chinese, French, German, Italian, Portuguese, or Spanish)

Concentration II: Teacher Certification in Foreign Languages (33 Credit Hours)

The Teacher Certification in Foreign Language concentration is designed to prepare Foreign Language Education teachers at all grade levels (pre-kindergarten through grade 12). It leads to P-12 teacher certification in the teaching field of (Chinese, French, German, or Spanish) in Georgia. Candidates complete a major in Modern Language and Culture (primary language: Chinese, French, German, or Spanish) and the equivalent of a second major in pedagogical studies with an emphasis on teaching a foreign language.

- EDUC 2130: Exploring Teaching and Learning
- FLED 4408: Second Language Acquisition
- FLED 4410: Methods, Materials, and Curriculum of Foreign Language Education, P-8
- FLED 4412: Methods, Materials, and Curriculum of Foreign Language Education, 9-12
- FLED 4414: Technology for Foreign Language Teaching
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- FLED 4650: Yearlong Clinical Experience I
- FLED 4651: FLED Seminar I
- FLED 4660: FLED Yearlong Clinical Experience II
- FLED 4661: FLED Seminar II

Concentration III: Applied Business (9 Credit Hours)

- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- CHNS 4404: Commercial Chinese *
- or
- FREN 4404: Commercial French *
- or
- GRMN 4404: Commercial German *
- or

- ITAL 4404: Commercial Italian *
- or
- SPAN 4404: Commercial Spanish *

Note:

* Must be the same as the primary language

Concentration IV: Cross-Disciplinary Perspectives (9 Credit Hours)

(Choose three of the following courses):

- ANTH 3310: Cultural Diversity in the U.S.
- ORGC 3325: Intercultural Communication
- HIST 3305: The World Since 1945
- PSYC 3355: Cross-Cultural Psychology

Related Studies (9 Credit Hours)

(Applies to concentrations I, III, and IV only): Nine hours of upper-division studies beyond the major requirements as approved by the academic advisor. Lower division courses or additional internship or study abroad hours may also be approved when appropriate.

Free Electives (12 Credit Hours)

(Applies to concentrations I, III, and IV only): Any courses in the university curriculum.

Program Total: Concentrations I, III, and IV (120 Credit Hours)

Program Total: Concentration II (123 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Multi-platform News Reporting Certificate

Required Courses (12 Credit Hours)

- JOUR 3330: News Reporting and Writing
- JOUR 3340: Digital Media Production
- JOUR 4488: Multi-Media Visions of Community (Capstone)
- JOUR 4445: Advanced Digital Audio Production
- or
- JOUR 4450: Video News Production

Elective Courses (6 Credit Hours)

Choose 2 of the following:

- COM 3398: Internship in Communication
- JOUR 3310: Concepts in New Media
- JOUR 3360: Photojournalism
- JOUR 4445: Advanced Digital Audio Production
- JOUR 4450: Video News Production

Program Total (18 Credit Hours)

Native-American Studies Minor

Susan Kirkpatrick Smith

Department of Geography and Anthropology

(470) 578-2373

<http://www.kennesaw.edu/sga/nativeminor.html>

The Minor in Native American Studies gives interested students an opportunity to expand their knowledge and understanding of the history and cultural diversity of Native Americans.

Required (6 Credit Hours)

- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3321: Indigenous Peoples of North America

Select three of the following (9 Credit Hours)

- AMST 3760: Advanced Studies in American Identities (if related to Native American Studies)
- AMST 4490: Special Topics in American Studies (if related to Native American Studies)
- ANTH 3315: Indigenous Peoples of the Southeast United States
- ANTH 4100: Directed Applied Research (if related to Native American Studies)
- ANTH 4421: North American Archeology
- ANTH 4490: Special Topics in Anthropology (if related to Native American Studies)
- ARH 3200: Ancient American Art and Architecture
- ARH 3240: Native North American Art and Architecture
- ENGL 3340: Ethnic Literatures (if related to Native American Studies)
- GEOG 3370: Geography of Latin America and the Caribbean
- GEOG 3380: Geography of North America
- HIST 3310: The Old South
- HIST 4204: The History of the American West
- HIST 3366: History of Mexico and Central America
- HIST 4410: Colonial America to 1763
- PSYC 3385: Ethnic Minority Psychology

- SOCI 3314: Race and Ethnicity

Program Total (15 Credit Hours)

Peace Studies Minor

Anne Richards

Coordinator, Peace Studies

(470) 578-2431

<http://peacestudies.hss.kennesaw.edu/>

The Peace Studies Minor program consists of five courses (two required and three elective) of undergraduate study across the disciplines. The five courses may be taken in any order, and the capstone is optional. A minimum of six hours in the minor must be taken in residence at Kennesaw State University.

Required Courses (6 Credit Hours)

- PAX 3600: Theories of Non-violence
- PAX 4000: Peacebuilding Methods

Elective Courses (9 Credit Hours)

Select three (3) courses from the following:

- ORGC 3325: Intercultural Communication
- GWST 3070: Gender and Social Justice
- PAX 3300: Peace and the Environment
- PAX 3100: Peace and Religion
- PAX 3220: Peace and Film
- PAX 3780: Trends in Peace Studies
- PAX 4400: Directed Study in Peace Studies
- PAX 4490: Special Topics in Peace Studies
- PAX 4499: Seminar in Peace Studies
- SOCI 3360: Sociology of Violence
- MUSI 3316: Music and the Holocaust
- PHIL 3120: Philosophies of Peace
- PHIL 3100: Ethics
- BIOL 4486: Bioethics

Program Total (15 Credit Hours)

Philosophy B.A.

Susan Rouse

Department of History and Philosophy

470-578-6294

<http://hp.hss.kennesaw.edu/programs/bap/>

The program of study in philosophy offers a Bachelor of Arts degree. All majors take several general requirements, including a foreign language through FL 2002 and a three-hour senior seminar. The program allows selection of one of three concentrations: Western Philosophy, Non-western Philosophy, and Ethics/Social and Political Philosophy. Philosophy majors are expected to demonstrate:

- General knowledge of philosophical traditions and their social and historical contexts;
- Knowledge of varied philosophical questions, problems, and issues; relevant social and historical contexts; and various methodological approaches to them;
- Ability to conduct philosophical research;
- Ability to read and think critically; and
- Ability to communicate effectively both orally and in writing.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Requirements (AREA F) (18 credit hours):

- PHIL 2100: Values and Society
or
- PHIL 2110: Religions of the World

- PHIL 2500: Logic
- PHIL 2700: Methods and Themes in Comparative Philosophy
- FL 2001: Intermediate Foreign Language and Culture I
- FL 2002: Intermediate Foreign Language and Culture II
- HIST 2206: Origins of Great Traditions

Upper Division Major Requirements (30 Credit Hours)

Must pass with a grade of "C" or better.

A. Common Requirements (18 Credit Hours)

- PHIL 3200: Asian Philosophy
or
- PHIL 3210: Latin American and Caribbean Philosophy

- PHIL 3100: Ethics

- or
- PHIL 3110: Social and Political Philosophy
- PHIL 3000: Ancient and Medieval Philosophy
- PHIL 3010: Modern Western Philosophy
- PHIL 4450: Major Figures in Philosophy
- or
- PHIL 4460: Major Themes in Philosophy
- PHIL 4499: Senior Seminar

B. Upper Division Electives (12 hours)

Select twelve hours from the following courses:

- PHIL 3020: American Philosophy
- PHIL 3030: Existentialism
- PHIL 3100: Ethics
- PHIL 3110: Social and Political Philosophy
- PHIL 3120: Philosophies of Peace
- PHIL 3130: Feminist Philosophy
- PHIL 3200: Asian Philosophy
- PHIL 3210: Latin American and Caribbean Philosophy
- PHIL 4000: Nineteenth Century Western Philosophy
- PHIL 4010: Contemporary Western Philosophy
- PHIL 4030: Phenomenology
- PHIL 4200: Indian Philosophy
- PHIL 4210: Chinese Philosophy
- PHIL 4220: Japanese Philosophy
- PHIL 4450: Major Figures in Philosophy
- PHIL 4460: Major Themes in Philosophy

Related Studies (15 credit hours):

Upper division related studies or a minor.

Free Electives (15 Credit Hours)

Any courses in the university curriculum.

Program Total (120 credit hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Philosophy Minor

Susan Rouse

Department of History and Philosophy

(470) 578-6294

<http://hp.hss.kennesaw.edu/programs/minor-philosophy/>

Students may earn a minor in Philosophy by completed fifteen (15) hours as described below. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

Select two of the following (6 Credit Hours)

- PHIL 3000: Ancient and Medieval Philosophy
- PHIL 3010: Modern Western Philosophy
- Any 3000-level Non-Western Philosophy course

For the remaining 9 credit hours, students may select from any of the following courses:

- PHIL 2110: Religions of the World
- PHIL 2500: Logic
- Any 3000 or 4000-level Philosophy course.

Program Total (15 Credit Hours)

Political Communication Certificate - Embedded

College of Humanities and Social Sciences

Department of Political Science and International Affairs

(470) 578-6227

<http://psia.hss.kennesaw.edu/>

This certificate program emphasizes the intersection of politics and communication. Students will gain exposure to academic theory and hands-on learning experience that focuses on the relationship between political structures, systems, and processes and professional communication, in particular journalism and public relations. It is designed for students seeking preparation for careers in a number of fields, for example, political consultants, campaign managers, legislative aids, lobbyists, public policy and media analysts, speech writers, political journalists, and public relations professionals.

Required Courses (9 Credit Hours)

- PR 3335: Public Relations Principles
or
- PR 3429: Persuasion Methods and Strategies

- POLS 3380: Mass Media and Politics
- POLS 3398: Internship
or
- COM 3398: Internship in Communication

Elective Courses (9 Credit Hours)

No more than 6 hours of elective coursework may come from one department.

- JOUR 3310: Concepts in New Media
- PR 4415: Topics in Public Relations
- POLS 3385: Campaigns and Elections
- POLS 3388: Lobbying and Interest Groups
- POLS 3390: Political Research On-Line
- POLS 3394: Public Polling and Survey Techniques
- POLS 4412: Urban Affairs and Problems

Program Total (18 Credit Hours)

Political Science B.S.

Bachelor of Science Degree

College of Humanities and Social Sciences

Department of Political Science and International Affairs

(470) 578-6227

Political Science is the study of the formal institutions of government and the actual behavior of people in public life. It examines both the institutions and processes of government using both empirical and normative research methodologies. A degree in political science is of value to all persons who take the responsibilities and opportunities of membership in a democratic society seriously. Specifically, political science is the undergraduate major of a majority of persons who attend law school; serves as prerequisite for graduate study in a number of social science disciplines; and is an ideal liberal arts major for careers in business, journalism, public and international affairs, the federal government, state and local government, teaching, interest groups, campaign management, communications, and many others.

Supervised internships and cooperative study programs at sites in business, industry and government are available and students are strongly urged to participate.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- POLS 2212: State and Local Government
- POLS 2240: Introduction to Comparative Politics

- POLS 2250: Introduction to International Relations
- POLS 2270: Political Ideologies
- POLS 2280: Research Methods
and
- Option A: Foreign Language 2001 level
or
- Option B: STAT 1107 (if MATH 1107 has been taken in Area D, student may choose MATH 1160 or MATH 1190)

Upper-Division Major Requirements (15 Credit Hours)

- POLS 4499: Senior Seminar

Choose one course from four of the five subfields

Subfield 1: American Government and Politics

- POLS 3360: The United States Congress
- POLS 3370: The United States Presidency
- POLS 3385: Campaigns and Elections

Subfield 2: Global Studies

- POLS 3350: American Foreign Policy
- POLS 4430: International Law and Organization
- POLS 4436: Politics of Developing Areas

Subfield 3: Political Theory

- POLS 4423: Great Political Thinkers
- POLS 4427: American Political Thought
- POLS 4428: Race, Gender, and the Politics of Difference

Subfield 4: Public Law and Administration

- POLS 3300: U.S. Constitution and Courts
- POLS 3343: Principles of Public Administration
- POLS 4412: Urban Affairs and Problems

Subfield 5: Research Methods

- POLS 4280: Advanced Research Methods and Data Analysis
- POLS 3313: Public Policy Analysis
- POLS 3320: Legal Research
- POLS 3394: Public Polling and Survey Techniques

Upper-Division Electives (15 Credit Hours)

- Choose five 3000-4000 level POLS courses

Related Studies (15 Credit Hours)

Choose five of the following courses:

- POLS 3396: Cooperative Study
- POLS 3398: Internship
- POLS 4100: Directed Applied Research
- Any 3000-4000 level POLS courses
- Any 3000-4000 level courses in HSS College
- BLAW 3400: Negotiation
- BLAW 4100: Advanced Business Law
- BLAW 4200: Employment Law
- BLAW 4300: Real Estate Law
- BLAW 4500: Franchise Law
- ECON 4310: Economic Development in Global Perspective
- ECON 4410: International Trade and Finance
- ECON 4530: Public and Urban Economics
- STAT 3010: Computer Applications of Statistics
- STAT 3120: Statistical Methods I
- STAT 3130: Statistical Methods II
- STAT 4120: Applied Experimental Design
- STAT 4210: Applied Regression Analysis
- Any other 3000-4000 level course approved by the PSIA department

Free Electives (15 Credit Hours)

- Any courses in the university curriculum totaling 15 credit hours.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Political Science Minor

This is a minor in political science requiring one lower division political science course, one upper division course in American politics, policy, or legal system, and one upper division course in international affairs. In addition, students will complete 6 credit hours of elective upper division political science courses.

Lower Division Requirements

Students complete 3 (three) credits from the following courses:

- POLS 2212: State and Local Government

- POLS 2240: Introduction to Comparative Politics
- POLS 2250: Introduction to International Relations
- POLS 2260: Current Political Issues
- POLS 2270: Political Ideologies
- POLS 2280: Research Methods

Upper Division Requirements: American Politics, Policy, and Legal Studies

Students complete 3 (three) credits from the following options:

- POLS 3300: U.S. Constitution and Courts
- POLS 3310: Foundations of Public Policy
- POLS 3313: Public Policy Analysis
- POLS 3315: American Constitutional Law: Federalism
- POLS 3320: Legal Research
- POLS 3328: African American Politics
- POLS 3340: Legal Analysis
- POLS 3343: Principles of Public Administration
- POLS 3356: U.S. Environmental Policy & Politics
- POLS 3360: The United States Congress
- POLS 3370: The United States Presidency
- POLS 3380: Mass Media and Politics
- POLS 3385: Campaigns and Elections
- POLS 3388: Lobbying and Interest Groups
- POLS 3390: Political Research On-Line
- POLS 3394: Public Polling and Survey Techniques
- POLS 4200: Homeland Security Administration
- POLS 4280: Advanced Research Methods and Data Analysis
- POLS 4402: Political Parties
- POLS 4405: Comparative Legal Systems
- POLS 4410: American Legal System
- POLS 4411: Criminal Law
- POLS 4412: Urban Affairs and Problems
- POLS 4415: Civil Liberties
- POLS 4416: Law and Gender
- POLS 4420: Judicial Process
- POLS 4423: Great Political Thinkers
- POLS 4427: American Political Thought
- POLS 4428: Race, Gender, and the Politics of Difference
- POLS 4429: Legal Theory & Philosophy
- POLS 4444: Administrative Practices and Organization
- POLS 4446: Governmental Budgeting

Upper Division Requirements: International Affairs

Students complete 3 (three) credits from the following options:

- POLS 4430: International Law and Organization
- POLS 4431: Politics of International Terrorism
- POLS 4433: European Union Politics
- POLS 4435: Comparative Foreign Policy
- POLS 4436: Politics of Developing Areas
- POLS 4437: Global Security
- POLS 4438: International Political Economy
- POLS 4439: Political Economy of Russia and Central Asia in Transition
- POLS 4449: Russian Foreign Policy
- POLS 4450: Canada & North America
- POLS 4451: Politics and Government in Post-Communist Europe
- POLS 4452: Politics of the Pacific Rim
- POLS 4453: Latin America: Democracy and Development
- POLS 4454: Politics of the Middle East
- POLS 4455: International Relations of Africa
- POLS 4456: International Environmental Policy
- POLS 4457: South Asian Politics: A Comparative Perspective

Electives

Complete any 6 (six) credit hours in 3000-4000 level POLS courses.

Program Total (15 Credit Hours)

Professional Politics Certificate - Embedded

Department of Political Science and International Affairs
(470) 578-6227

Courses in the program focus on applied skills and settings: campaign management, media and politics, polling, public policy, and lobbying.

Students receiving the certificate must complete 15 semester hours, as outlined below. The internship serves as a capstone experience for the program and is limited to professional political settings. Credit hours for the internship may range from 3 to 12 semester hours depending on the number of hours worked per week.

Choose 12 hours from the following options:

- POLS 3313: Public Policy Analysis
- POLS 3380: Mass Media and Politics
- POLS 3385: Campaigns and Elections
- POLS 3388: Lobbying and Interest Groups
- POLS 3390: Political Research On-Line
- POLS 3394: Public Polling and Survey Techniques
- POLS 4410: American Legal System

- POLS 4420: Judicial Process
- POLS 4444: Administrative Practices and Organization

Required Capstone Experience (3 Credit Hours)

- POLS 3398: Internship

Program Total (15 Credit Hours)

Professional Writing Minor

Dorothy Kuykendal

Department of English

(470) 578-7531

<http://english.hss.kennesaw.edu/programs/minor-pw/>

The minor in professional writing prepares students to be critical thinkers, careful researchers, and creative and capable writers who are able to respond effectively to contemporary writing tasks and opportunities. Students receive advanced instruction in rhetoric, editing, technologies of writing, workshop critique, and the production of workplace, academic, and creative texts. The minor provides a credential in writing, which is a desirable supplement to a variety of undergraduate majors.

Select four of the following (12 Credit Hours)

- FILM 3105: Fundamentals of Writing for Film and Television
- FILM 4105: Advanced Writing for Film and Television
- WRIT 3000: Introduction to Creative Writing Genres
- WRIT 3100: Poetry Writing
- WRIT 3109: Careers in Writing
- WRIT 3110: Playwriting
- WRIT 3111: Professional Editing
- WRIT 3120: Fiction Writing
- WRIT 3130: Literary Nonfiction
- WRIT 3140: Writing in the Workplace
- WRIT 3150: Topics in Digital Rhetoric
- WRIT 3160: Argumentative Writing
- WRIT 3170: Environmental Writing and Literature
- Any 4000-level WRIT course

Note:

A fifth course will be selected from the student's Area F requirements in consultation with the advisor for the professional writing minor.

Program Total (15 Credit Hours)

Psychology B.S.

Bachelor of Science Degree

College of Humanities and Social Sciences, Department of Psychology

(470) 578-6225

Psychology is the scientific study of behavior and mental processes. It examines behavior and mental processes in an effort to serve human welfare. The Bachelor of Science degree in Psychology is designed to provide students with strong research, communication, and critical thinking skills. As such, the program requires completion of an Introductory Psychology course, a Careers in Psychology course, a laboratory-based two-semester research sequence, courses from the primary areas of the discipline, and a Senior Capstone Experience. The undergraduate degree in psychology provides students with a strong foundation for graduate study in a variety of disciplines. It also provides a broad liberal arts education that can serve as an entry point into bachelor's degree-level careers. Students are encouraged to select courses in consultation with an advisor.

General Education (42 Credit Hours)

See Listing of Requirements.

Specific General Education Requirements for this Major:

- STAT 1107: Introduction to Statistics (must be taken in Area D)

Lower-Division Major Requirements (Area F) (18 Credit Hours)

Must earn a "C" or better in all courses in this area. Must earn a "C" or better for prerequisites to be satisfied.

- PSYC 1101: Introduction to General Psychology

Cannot be used to satisfy General Education requirements.

- PSYC 2210: Careers in Psychology
- PSYC 2300: Research Methods and Statistics

Electives: Any 1000 - 2000 level courses (2 credit hours) Supporting Disciplines: Any 1000- or 2000-level courses in MATH, BIOL, CHEM, or PHYS (6 credit hours)

Upper-Division Major Requirements (36 Credit Hours)

Must earn a "C" or better in all courses in this area. Must earn a "C" or better for prerequisites to be satisfied. Complete one course from each of the five areas and one capstone course. At least 21 of the 36 required hours in this section must be completed at KSU. At least 39 upper-level hours are required to graduate. Lower-level courses substituted for upper-level courses do not count toward the 39 hours. No more than 6 hours of PSYC 4400 can be used in this section.

- PSYC 3301: Experimental Design and Analysis

Major Electives

Choose one class in each of the following 5 Areas plus the Senior Capstone Experience and Psychology Electives:

Developmental Area:

Prereq: PSYC 1101

- PSYC 3305: Life-Span Developmental Psychology

Diversity and Multicultural Area:

Prereq: PSYC 1101. Choose one of the following courses:

- PSYC 3355: Cross-Cultural Psychology
- PSYC 3385: Ethnic Minority Psychology
- PSYC 3395: Psychology of Prejudice and Privilege
- PSYC 3401: Psychology of Diversity
- PSYC 3425: Psychology of Gender
- PSYC 4000: International Psychology

Personality and Social Area:

Prereq: PSYC 2300 Choose one of the following courses:

- PSYC 3325: Social Psychology
- PSYC 3335: Theories of Personality

Biological Bases Area:

Prereq: PSYC 2300. Choose one of the following courses:

- PSYC 4410: Physiological Psychology
- PSYC 4415: Perception

Learning and Cognition Area:

Prereq: PSYC 3301. Choose one of the following:

- PSYC 4345: Learning and Behavior
- PSYC 4455: Cognitive Psychology

Senior Capstone Experience: *

See notes below. One 3-credit hour course from the following:

- PSYC 4445: History and Systems of Psychology
- PSYC 4498: Capstone Internship in Psychology
- PSYC 4499: Senior Seminar in Psychology

Note: HON 4498 and HON 4499 may substitute. See an advisor.

Psychology Electives:

Twelve credit hours of 3000-4000 level PSYC courses.

Related Studies (12 Credit Hours)

3000-4000 level courses outside of PSYC.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Psychology Minor

The psychology minor is open to all undergraduate students. Students gain a basic understanding and awareness of behavior through a curriculum that emphasizes psychology as a science. By exploring individual areas of interest in psychology through a variety of courses, students learn information that will complement knowledge acquired through their major.

Note: Students using PSYC 1101 for the psychology minor may not use it to fulfill Area B of the General Education requirements.

Lower-Level Required Foundational Courses (6 Credit Hours)

- PSYC 1101: Introduction to General Psychology *
- PSYC 2000: The Science of Psychology **

**Must be used in the minor. May not be used to fulfill Area B General Education requirements.*

***May not be used as a substitute for PSYC 2300.*

Upper-Level Psychology Courses (9 Credit Hours)

Choose three courses:

- PSYC 3010: Educational Psychology
- PSYC 3040: Motivation and Emotion
- PSYC 3270: Engineering Psychology
- PSYC 3273: Forensic Psychology
- PSYC 3305: Life-Span Developmental Psychology
- PSYC 3310: Psychopharmacology
- PSYC 3320: Leadership and Group Dynamics
- PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective

- PSYC 3355: Cross-Cultural Psychology
- PSYC 3365: Human Sexuality
- PSYC 3370: Industrial-Organizational Psychology
- PSYC 3375: Psychology of Career Development
- PSYC 3385: Ethnic Minority Psychology
- PSYC 3395: Psychology of Prejudice and Privilege
- PSYC 3401: Psychology of Diversity
- PSYC 3410: Health Psychology
- PSYC 3425: Psychology of Gender
- PSYC 3775: The Psychology of Religion: An Empirical Approach
- PSYC 4000: International Psychology
- PSYC 4130: Psychology of Aging
- PSYC 4420: Ethics and Professional Issues in Applied Psychology
- PSYC 4430: Abnormal Psychology
- PSYC 4440: Clinical and Counseling Psychology: Science and Practice
- PSYC 4475: Psychology of Workplace Motivation and Leadership

Program Total (15 Credit Hours)

Public History Certificate - Embedded

Dr. Jennifer Dickey, Coordinator

Department of History & Philosophy

(470) 578-6294

<http://hp.hss.kennesaw.edu/programs/cert-ph/>

Kennesaw State University's public history certificate program trains students to think critically about the public presentation of history and culture. Students will develop tangible skills that enable them to pursue graduate study in a number of fields as well as professional work at historic and cultural sites. Classroom and fieldwork combine to deliver both theoretical understanding of memory and history and practical experience in historic preservation, community documentation, museums, and cultural program development.

To be awarded the Certificate in Public History students must maintain a GPA of 3.0 in certificate requirements. The certificate is awarded with the completion of a bachelor's degree or, if the student already has a bachelor's degree, after the successful completion of the certificate program.

Required Course

- HIST 3100: Historical Methods

Core Requirements:

- HIST 3325: Introduction to Public History
- HIST 3398: Internship

(All internships must be approved by the public history program coordinator.)

and at least two of the following:

- HIST 3326: Historic Preservation
- HIST 3327: Architectural History
- HIST 3328: Introduction to Archives and Records Management
- HIST 4426: Documentation and Interpretation of Historic Sites *
- HIST 4430: Museum Studies *
- HIST 4435: History and Memory

remaining courses drawn from the following:

- HIST 4424: Museum Education
- HIST 4425: Oral History
- HIST 4490: Special Topics in History
- ANTH 4425: Historical Archeology
- HS 4100: Grant Writing and Fundraising *
- HIST 3398: Internship **

**HIST 3325 is a pre-requisite for these courses. See public history coordinator for a permit to register.*

***A second internship may be used as an elective as long as the experiences are independent of each other, with different identifiable learning outcomes.*

Program Total (18 Credit Hours)

Public Relations B.S.

Degree: Bachelor of Science Degree

Office: College of Humanities and Social Sciences, School of Communication & Media

Phone: (470) 578-6298

The Public Relations major at Kennesaw State University offers a professionally-focused, marketplace-relevant, and theoretically-rigorous academic program for aspiring public relations communicators throughout Metro Atlanta and Northwest Georgia. Kennesaw State is one of only three universities in the state of Georgia to offer a specific major in the ever-evolving discipline of Public Relations. The major offers students a public relations education that includes public relations principles, case study analysis, public relations writing, crisis communication, graphic design for organizational publications, persuasion methods and strategies, and use of social media and other multi-media communication strategies in public relations. Internships and study tours to New York and Atlanta public relations agencies supplement the traditional classroom and online learning settings.

The major requires 18 credit hours of lower division course work (1000-2000 level) comprising various offerings, both inside and outside of the communication discipline, that serve as important groundwork leading to advanced studies. Lower division offerings include basic courses in communication research, visual communication, public speaking, writing, information systems, and an introductory course relevant to the student's selected program of study.

All communication majors must earn a grade of "C" or better in all communication courses counted toward their degree and pass the Communication Entrance Exam with a score of 70% or higher. Students who fail to pass the grammar test in three attempts must pursue majors in other departments.

To be eligible to apply to a major in Public Relations, students must meet the following criteria:

- Meet the School of Communication & Media (SOCM) Sophomore GPA Requirement. This Sophomore GPA requirement consists of combined adjusted 2.75 GPA in the following five courses:
 - ◊ COM 2020
 - ◊ COM 2033
 - ◊ COM 2129
 - ◊ COM 2135
 - ◊ COM 2230
- Achieve a satisfactory score on the SOCM Entrance Exam. Students may take the test no more than three times.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirement (Area F) (18 hours)

- COM 2020: CSI: Communication Sources and Investigations
- COM 2129: Public Speaking
- COM 2033: Visual Communication
- COM 2135: Writing for Public Communication
- COM 2240: Communication Law, Ethics and Diversity
- COM 2230: Introduction to Mass Communication

Upper Division Major Requirements (21 Credit Hours)

- COM 3435: Communication Research Methods
- COM 4480: Communication Theory
- PR 3335: Public Relations Principles
- PR 3355: Public Relations Cases
- PR 3375: Public Relations Writing
- PR 4460: Crisis Communication
- PR 4465: Public Relations Campaigns (Capstone)

Major Electives (12 Credit Hours)

Choose four from the courses below:

- COM 3350: Editing for Today's Media
- COM 3398: Internship in Communication
- JOUR 3310: Concepts in New Media

- JOUR 3330: News Reporting and Writing
- JOUR 3340: Digital Media Production
- JOUR 4420: Advanced Media Writing
- JOUR 4470: Media Law
- PR 3380: PR Strategies and Tactics
- PR 3385: International Public Relations
- PR 3429: Persuasion Methods and Strategies
- PR 4210: Social Media for Strategic Communication
- PR 4405: Digital Publication Design
- PR 4415: Topics in Public Relations
- PR 4495: Public Relations Study Tour
- PR 4605: Magazine Media
- PR 4670: Crisis Leadership Communication

Upper Division Electives (3 Credit Hours)

Students may choose from any PR or COM course not previously taken. The list below provides recommended electives for Public Relations majors. Please take into account any prerequisites required.

- COM 3315: Interviewing
- COM 3320: Health Communication
- COM 3350: Editing for Today's Media
- COM 3398: Internship in Communication
- COM 4100: Directed Applied Research
- COM 4400: Directed Study
- ORGC 4440: Leadership Communication
- COM 4490: Special Topics in Communication
- COM 4499: Senior Thesis
- JOUR 3310: Concepts in New Media
- JOUR 3330: News Reporting and Writing
- JOUR 3340: Digital Media Production
- JOUR 3360: Photojournalism
- JOUR 4420: Advanced Media Writing
- JOUR 4470: Media Law
- ORGC 3325: Intercultural Communication
- ORGC 3376: Interpersonal Communication
- PR 3380: PR Strategies and Tactics
- PR 3385: International Public Relations
- PR 4210: Social Media for Strategic Communication
- PR 4405: Digital Publication Design
- PR 4415: Topics in Public Relations
- PR 4495: Public Relations Study Tour
- PR 4605: Magazine Media
- PR 4670: Crisis Leadership Communication

Related Studies (12 Credit Hours)

Upper division coursework (3000-4000 level) must be outside of the School of Communication & Media.

Free Electives (12 Credit Hours)

Any course (1000-4000) in the university curriculum, with a grade of "D" or better.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Public Relations Minor

Required Courses (12 Credit Hours)

- PR 3335: Public Relations Principles
- PR 3355: Public Relations Cases
- PR 3429: Persuasion Methods and Strategies
- PR 4460: Crisis Communication

Elective Courses (3 Credit Hours)

Choose one of the following:

- PR 4415: Topics in Public Relations
- PR 4210: Social Media for Strategic Communication

Program Total (15 Credit Hours)

Religious Studies Minor

Thomas Pynn

Coordinator, Religious Studies

(470) 578-2431

<http://rels.hss.kennesaw.edu/program/rels-minor/>

The Religious Studies Minor program consists of fifteen (15) credit hours (five courses) of undergraduate study across traditional disciplines. A minimum of six (6) hours in the minor must be taken in residence at Kennesaw State University.

Required Courses (9 Credit Hours)

- HIST 2206: Origins of Great Traditions

- PHIL 2110: Religions of the World
- SOCI 3334: Religion and Society

Electives (6 Credit Hours)

Select two from the following:

- ENGL 3320: Scriptural Literature
- ENGL 3322: Hebrew Scriptures as Literature
- ENGL 3324: New Testament as Literature
- HIST 3331: History of Religion in the U.S.
- PHIL 3200: Asian Philosophy
- PHIL 4210: Chinese Philosophy
- PHIL 4220: Japanese Philosophy
- Any KSU directed study with content appropriate to Religious Studies*
- Any 3000- or 4000-level KSU study abroad course with content appropriate to Religious Studies*

*With the approval of the coordinator of the minor and the chair of the department offering the course.

Program Total 15 Credit Hours

Slavic, East European, and Eurasian Studies Minor

Katya Vladimirov, Coordinator
Department of History & Philosophy
(470) 578-6294

The minor in Slavic, East European, and Asian Studies allows students to study the culture, politics, and history of one of the most significant world regions. Although students in any major will benefit from completing this minor, students in history, international affairs, political science, philosophy, economics, and business will gain knowledge in an area vital to our national interests that advances their career opportunities. At least twelve hours counted toward the minor must not duplicate hours counted toward the major.

Required Courses (9 Credit Hours)

- HIST 3379: Central Asia in World History
- HIST 4455: Twentieth Century Russia
- POLS 4451: Politics and Government in Post-Communist Europe

6 Credit Hours from the following:

- ARH 3150: Islamic Art and Architecture
- HIST 3360: Russian Empire to 1917
- HIST 3361: Themes in Slavic and Eastern European Studies

- HIST 3375: Silk Road
- PHIL 2110: Religions of the World
- POLS 4431: Politics of International Terrorism
- Any directed studies course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies
- Any 3000-4000 level course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies
- Any 3000-4000 level study abroad course offered at KSU with content appropriate to Slavic, Eastern European, and Eurasian Studies

Program Total (15 Credit Hours)

Sociology B.S.

Bachelor of Science Degree

College of Humanities and Social Sciences, Department of Sociology and Criminal Justice

470-578-6739

The Bachelor of Science degree in Sociology prepares students to understand and deal with diversity, modernization, and social change ranging from the local to global scale. The core competencies of the program prepare students to enter careers requiring technological facility, communication skills, data gathering and analysis skills, community awareness and involvement, problem-solving, critical thinking, an understanding of the structure and functioning of groups and organizations, greater awareness of their environment, critical self-reflection, and interpersonal and intercultural skills. Besides career preparation, specific concentrations in the major also provide background for graduate study in sociology and other related disciplines.

With the applied focus on modernization and social change, students who graduate with a degree in Sociology that is complemented by a knowledge of other social sciences would be prepared to work as urban planners, demographers and data analysts, public survey workers, social research assistants, affirmative action officers, employee specialists, cultural diversity trainers, criminologists in law enforcement and corrections, and numerous other occupations.

The program of study offers students both intellectual growth and marketable technical skills. Students who plan graduate work in sociology or related fields will likewise be introduced to the core studies necessary for the pursuit of their respective disciplines. Included in the curriculum are concentrations in:

Organizational and Social Change

Among other things students will understand how organizations and occupations are modified, how and why family structures are transformed, and how social mobility occurs.

Cultural Diversity Studies

Students will acquire a global perspective and the conceptual tools necessary to work in a variety of professional settings and academic positions

Criminology

Students will learn about the causes of crime, how to measure the extent of crime, and how to

critically examine the approaches used to prevent, sanction, and change criminal behavior.

Medical Sociology

Students will develop a critical understanding of the health care delivery system and its various stakeholders, including patients, organizations, and providers. Other areas with the medical sociology concentration include aging, mental health, human sexuality, biotechnology and ethical issues, and substance abuse.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Required Courses (9 Credit Hours)

- SOCI 1101: Introduction to Sociology
- SOCI 2251: Social Problems
- SOCI 2210: Professional Development for Sociology Students

Electives (9 Credit Hours)

Select three of the following:

- ANTH 1102: Introduction to Anthropology
- COM 1100: Human Communication
- CRJU 1101: Foundations of Criminal Justice
- GEOG 1101: Introduction to Human Geography
- HS 2100: Overview of Human Services
- POLS 2212: State and Local Government
- PSYC 1101: Introduction to General Psychology

Upper Division Major Requirements (24 Credit Hours)

- ANTH 3310: Cultural Diversity in the U.S. *
- or
- SOCI 3314: Race and Ethnicity *
- or
- SOCI 3350: Intersections of Race, Class, and Gender *
- SOCI 3300: Foundations of Social Theory
- SOCI 3304: Social Organization
- SOCI 3305: Research Methods in Sociology
- SOCI 3333: Technology and Society
- or
- SOCI 3344: Biotechnology and Social Change *

- SOCI 3354: Social Class and Mobility
or
- SOCI 4444: Social Change and Modernization
- SOCI 3396: Cooperative Study
or
- SOCI 3398: Internship
or
- SA 4490: Upper-division Study Abroad
- SOCI 4499: Senior Seminar in Sociology

Note:

*Students cannot use the same upper division level course for their upper division requirement and their concentration requirement.

Major Concentration (15 Credit Hours)

Select five courses in one concentration area:

Criminology Concentration

- CRJU 3352: Juvenile Justice
- CRJU 3365: Profile of the Serial Offender
- CRJU 4410: Criminal Profiling and Analysis
- CRJU 4430: Victimology
- GEOG 3300: Urban Geography
- PSYC 4430: Abnormal Psychology
- SOCI 3360: Sociology of Violence
- SOCI 4410: Advanced Qualitative Research Methods in Sociology
- SOCI 4420: Advanced Quantitative Research Methods in Sociology
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4432: Criminology
- SOCI 4442: Deviance and Social Control

Cultural Diversity Studies Concentration

- ANTH 3307: Cultural Anthropology
- ANTH 3310: Cultural Diversity in the U.S.
- ANTH 3321: Indigenous Peoples of North America
- ANTH 3350: Cultures and Societies of the World
- GEOG 3340: Cultural Geography
- PSYC 3355: Cross-Cultural Psychology
- SOCI 3314: Race and Ethnicity
- SOCI 3324: Sociology of Gender
- SOCI 3334: Religion and Society

- SOCI 3350: Intersections of Race, Class, and Gender
- SOCI 3354: Social Class and Mobility
- SOCI 4410: Advanced Qualitative Research Methods in Sociology
- SOCI 4420: Advanced Quantitative Research Methods in Sociology
- SOCI 4434: Emerging Social Issues in Africa
- SOCI 4435: Sociology of South Asia

Medical Sociology Concentration

- HS 3750: Death, Dying and Bereavement
- PSYC 3365: Human Sexuality
- SOCI 3310: Introduction to Gerontology
- SOCI 3320: Exploring the Aging Network
- SOCI 3344: Biotechnology and Social Change
- SOCI 3360: Sociology of Violence
- SOCI 3380: Society, Community, & Health
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4410: Advanced Qualitative Research Methods in Sociology
- SOCI 4420: Advanced Quantitative Research Methods in Sociology
- SOCI 4443: Medical Sociology
- SOCI 4445: Sociology of Mental Illness

Organizational and Social Change Concentration

- GEOG 3330: Economic Geography
- MGT 3100: Management and Behavioral Sciences
- PSYC 3370: Industrial-Organizational Psychology
- MKTG 3100: Principles of Marketing
- SOCI 3310: Introduction to Gerontology
- SOCI 3315: Comparative and Transnational Sociology
- SOCI 3324: Sociology of Gender
- SOCI 3354: Social Class and Mobility
- SOCI 3364: Sociology of the Family
- SOCI 3374: Sociology of Occupations
- SOCI 4410: Advanced Qualitative Research Methods in Sociology
- SOCI 4420: Advanced Quantitative Research Methods in Sociology

Related Studies (9 Credit Hours)

- Related Studies Electives 9 hours: Nine hours of upper-division (3000-4000) studies beyond the major requirements as approved by the academic advisor. Lower division courses or additional internship hours may also be approved when appropriate.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Sociology Minor

Dawn Baunach

Department of Sociology and Criminal Justice

470-578-6739

<http://scj.hss.kennesaw.edu/programs/minor-sociology/>

In a society dramatically reshaped by evolving social and technological forces, there is a need for a greater socio-cultural understanding. The Sociology minor provides students majoring in other disciplines with the knowledge and skills necessary to succeed in a radically changing and diverse interpersonal environment. It offers students the opportunity to fit information from their disciplines within a larger social framework.

Required Course (3 Credit Hours)

- SOCI 1101: Introduction to Sociology

Select one of the following (3 Credit Hours)

- SOCI 3300: Foundations of Social Theory
- SOCI 3304: Social Organization

Select three of the following (9 Credit Hours)

- SOCI 3310: Introduction to Gerontology
- SOCI 3314: Race and Ethnicity
- SOCI 3320: Exploring the Aging Network
- SOCI 3324: Sociology of Gender
- SOCI 3333: Technology and Society
- SOCI 3334: Religion and Society
- SOCI 3344: Biotechnology and Social Change
- SOCI 3354: Social Class and Mobility
- SOCI 3360: Sociology of Violence
- SOCI 3364: Sociology of the Family
- SOCI 3374: Sociology of Occupations
- SOCI 4200: Drugs, Alcohol and Society
- SOCI 4400: Directed Study in Sociology
- SOCI 4410: Advanced Qualitative Research Methods in Sociology
- SOCI 4420: Advanced Quantitative Research Methods in Sociology

- SOCI 4432: Criminology
- SOCI 4434: Emerging Social Issues in Africa
- SOCI 4443: Medical Sociology
- SOCI 4442: Deviance and Social Control
- SOCI 4444: Social Change and Modernization
- SOCI 4445: Sociology of Mental Illness
- SOCI 4464: Population
- SOCI 4490: Special Topics in Sociology

Program Total (15 Credit Hours)

Spanish Minor

Advisor: Patricia P. Wood

Department of Foreign Languages

(470) 578-6366

<http://foreignlanguages.hss.kennesaw.edu/programs/minor-spanish/>

The minor in Spanish requires 15 hours of SPAN course work at the level of 2002 or above. These 15 hours must include SPAN 3200, SPAN 3302, and SPAN 3303. Advanced speakers should consult with a Spanish advisor about testing options using the Advanced Standing examinations available in the Department of Foreign Languages.

Program Total (15 credit hours)

Technical Communication, B.S.

Department of Technical Communication and Interactive Design

College of Humanities and Social Sciences

Marietta Campus - Atrium Building, J333

(470) 578-7202 or tcid@kennesaw.edu

The Bachelor of Science in Technical Communication provides students a hands-on approach to developing the competencies to become professionals in the field of technical communication. Our program's emphasis on digital environments means our graduates can work as user experience designers, data visualization specialists, or instructional designers. Our emphasis in this program is to create students who can customize information so audiences can understand new concepts and complex ideas.

This approach to technical communication merges technical knowledge and information design with an ultimate focus on understanding audience. Students will take classes in technical writing, technical research, front-end development, and visual design while also selecting a concentration in Data Analysis and Presentation, Technical Training, or User Experience Design.

General Education (42 Credit Hours)

General Education Requirements

- STAT 1107: Introduction to Statistics is recommended in Area D of the General Education Program.
- COM 1100: Human Communication is recommended in Area B2.

Area F Lower Division Major Requirements (18 - 19 Credit Hours)

- TCOM 2002: Productivity Tools and Technologies for Technical Communicators
- TCOM 2010: Technical Writing
- TCOM 2030: Research in Technical Communication
- DWMA 2170: Introduction to Digital Media and Culture

Take one of the following:

- CS 1301: Programming Principles I
- CSE 1301: Programming and Problem Solving I
- ACST 2301: Problem-Solving and Digital Game Design
- ICT 2101: Information and Communications Technology

Take one of the following:

- DWMA 2050: Digital Collaboration
- BUSA 1000: Introduction to Business
- COM 2033: Visual Communication

Upper Division Major Requirements (18 Credit Hours)

- TCOM 3130: Technical Communication: Theory, Ethics, and Practice
- TCOM 4000: Technical Editing
- DWMA 3430: Visual Design I for Content Creators
- DWMA 3400: Front-End Development I
- DWMA 4800: Project Portfolio
- ENGL 4240: Rhetorical Theory

Major Concentration (15 Credit Hours)

Select one of the following:

Technical Training Concentration

- TCOM 3030: Instructional Design
- TCOM 3070: User Assistance
- TCOM 4045: Multi-Media for Technical Communicators
- TCOM 4050: Instructional Video for Technical Communicators
- DWMA 4430: Visual Design II for Content Creators

Data Analysis and Presentation Concentration

- TCOM 3020: Designing Effective Proposals
- TCOM 3145: Designing Social Media Infrastructure
- TCOM 3245: SEO and Analytics for Technical Communicators
- INDS 3350: Information Visualization I
- DWMA 4430: Visual Design II for Content Creators

User Experience Design Concentration

- TCOM 3045: Fundamentals of Information Design
- TCOM 3070: User Assistance
- TCOM 4120: Usability Testing
- DWMA 3800: Front-End Development II
- DWMA 4430: Visual Design II for Content Creators

Related Studies (12 Credit Hours)

12 hours of additional 3000-4000 level courses in the Technical Communication major or from any 3000-4000 level courses in the university curriculum.

Must pass with a C or better.

Free Electives (14* - 15 credit hours)

- Any courses within the university curriculum.

Must pass with a D or better.

*If CS 1301 or CSE 1301 is taken in Area F

Program Total: (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Writing and New Media B.A.

Department of Technical Communication and Interactive Design

College of Humanities and Social Sciences

Marietta Campus - Atrium Building, J-333

(470) 578-7202 or tcid@kennesaw.edu

The Bachelor of Arts in Writing and New Media degree program emphasizes the role and place of text and image within a world increasingly dependent upon writing and new media proficiency. Project driven courses challenge students to implement real-world applications in nearly every class. Specialized course-work and individual attention allows graduated to begin work immediately, satisfying the demand for professionals who can communicate using both text and image.

Important Note About the Writing and New Media Degree

No new majors are being accepted into the program. All information in this catalog is for the current Writing and New Media majors only.

Students should contact the department and refer to the archived 2014-2015 SPSU Undergraduate catalog: <http://curriculum.kennesaw.edu/resources/curriculum-resources.php> for more information.

College of Science and Mathematics

Applied Mathematics Minor

Contact: Ana-Maria Croicu

Department of Mathematics

(470) 578-6327

<http://csm.kennesaw.edu/mathematics/programs/applied-mathematics-minor.php>

Required Courses (12 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- MATH 3000: Software of Mathematics
- MATH 3260: Linear Algebra I
- MATH 3261: Numerical Methods I

Elective (3 Credit Hours)

- Select any 3000 or 4000 level MATH or STAT course

Program Total (15 Credit Hours)

Applied Statistics and Data Analysis Minor

Contact: Michael Frankel

Department of Statistics and Analytical Sciences

(470) 578-2389

<http://csm.kennesaw.edu/statistics/programs/applied-statistics-data-analysis-minor.php>

Required Courses (9 Credit Hours)

- STAT 3010: Computer Applications of Statistics
- STAT 3120: Statistical Methods I
- or
- STAT 3125: Biostatistics
- STAT 3130: Statistical Methods II

Select two of the following (6 Credit Hours)

- IS 4540: Data Mining
- STAT 4025: Clinical Trial Design
- STAT 4120: Applied Experimental Design
- STAT 4210: Applied Regression Analysis
- STAT 4125: Design and Analysis of Human Studies
- STAT 4310: Statistical Data Mining

- STAT 4330: Applied Binary Classification
- STAT 4490: Special Topics in Statistics
- PSYC 3301: Experimental Design and Analysis
- One of the two upper-level electives may consist of 3 credit hours for either
- STAT 3396: Cooperative Study
or
- STAT 3398: Internship

Program Total (15 Credit Hours)

Biochemistry B.S.

Bachelor of Science Degree

College of Science and Mathematics,

Department of Chemistry and Biochemistry

(470) 578-6159

<http://csm.kennesaw.edu/chemistry-biochemistry/programs/bs-biochemistry.php>

The BS in Biochemistry is designed to prepare students for graduate school in biochemistry or for a variety of professional schools including medical, veterinary, and dental. This degree also provides training for BS level biochemist positions in industrial, academic, and government laboratories.

The Department of Chemistry and Biochemistry provides American Chemical Society (ACS) approved programs. Students completing a baccalaureate degree that meets the ACS Guidelines will receive an ACS-certified degree. To achieve ACS certification, specific course work and experience are necessary.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Lab/Math credit from General Education (2 Credit Hours)
- CHEM 1211: General Chemistry I *
- CHEM 1211L: General Chemistry I Laboratory *
- CHEM 1212: General Chemistry II *
- CHEM 1212L: General Chemistry II Laboratory *
- CHEM 2800: Quantitative Analytical Chemistry
- CHEM 2800L: Quantitative Analytical Chemistry Laboratory
- MATH 1190: Calculus I *
- MATH 2202: Calculus II
- PHYS 2211: Principles of Physics I *
- PHYS 2211L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II *
- PHYS 2212L: Principles of Physics Laboratory I

* If not taken in General Education.

Upper Division Major Requirements (30 Credit Hours)

- CHEM XXXX Chemistry Elective (Choose from any 3000/4000 level course in chemistry)
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3050: Physical Chemistry
- CHEM 3501: Biochemistry I: Structure and Function of Biological Macromolecules
- CHEM 3501L: Biochemistry I Laboratory
- CHEM 3502: Biochemistry II: Metabolism
- CHEM 4500K: Methods in Nucleic Acid and Protein Biochemistry

Choose One of the Following:

- CHEM 3398: Internship
- CHEM 3540L: Advanced Biochemistry Laboratory
- CHEM 4100: Directed Applied Research
- CHEM 4120L: Research Methods Laboratory

Supporting Disciplines (18 Credit Hours)

- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory
- BIOL 3300: Genetics
- BIOL 3300L: Genetics Laboratory

Supporting Discipline Electives:

Choose six hours from the following:

- BIOL 3301K: Introduction to Biotechnology
- BIOL 3317: Pathophysiology
- BIOL 3327: Medical Genetics
- BIOL 3340: Microbiology
- BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval
- BIOL 3410: Cell Biology
- BIOL 4100K: Molecular Genetics
- BIOL 4411K: Stem Cell Technology
- BIOL 4412K: Cell and Tissue Culture

- BIOL 4420K: Plant Physiology
- BIOL 4440: Toxicology
- BIOL 4455: Case Studies in Forensic Science
- BIOL 4460K: Medical Microbiology
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4490: Special Topics in Biology
- BIOL 4500K: Bioinformatics I
- BIOL 4510K: Bioinformatics II
- BIOL 4550: Cancer Biology
- BIOL 4630: Advanced Topics in Cell & Molecular Biology
- Other 3000-4000 level course as approved by the department chair

Free Electives (12 Credit Hours)

Any courses in university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Biology B.S.

Bachelor of Science Degree

College of Science and Mathematics

Contact: Scott A. Reese

Curriculum Coordinator for the Natural Sciences

(470) 578-6158

<http://csm.kennesaw.edu/bs-biology/>

The program of study in biology leading to a Bachelor of Science degree provides students with the opportunity to pursue a major field of concentration in biology with the necessary specialization to succeed in a wide array of post-baccalaureate opportunities. The following degree tracks include the course work and experience necessary for student success. See an academic advisor for specific course information and important aspects of each of these tracks.

General Biology Track: This track is designed to allow flexibility in preparing students for a multitude of biological roles. Students can design a course of study that will prepare them for work in private sectors, government agencies or for continued graduate education. Due to the variety of options in this track, students are strongly encouraged to meet with an academic advisor early to plan a course of study.

Pre-Professional Track: This track is designed to prepare students for a multitude of post-baccalaureate education in the medical and professional fields. Course specifications exist for

students interested in Human Medicine, Veterinary Medicine, Pharmaceutical Sciences, Dentistry, Optometry, and a number of related fields. Given the intense nature of the course requirements for many of these specialties, students are encouraged to talk to an advisor early in their course of study.

Cell, Molecular, and Developmental Biology Track: This track is designed to prepare students for graduate school in a number of sub-disciplines that focus on cellular and sub-cellular processes or use a range of molecular techniques.

Ecology/Environmental Biology Track: This track is designed for students interested in pursuing a career in the field of Ecology or Environmental Biology. Students completing this track will have the knowledge and skills to pursue further graduate education or obtain environmentally-related professional positions in the public and private sector.

Plant Biology Track: This track is designed for students interested in attending graduate school or entering the professional workforce where plants are the principal study organism.

Microbiology Track: This track is designed for students with a strong interest in pursuing professional work or graduate education in microbiology. After completing the track, students will be qualified to sit for certification as Registered Microbiology Specialists in Food Safety and Quality Assurance, Pharmaceutical and Medical Devices, or Specialists in Microbiology.

Biotechnology Track: This track is designed for students interested in pursuing a career in the multitude of biotechnology companies in the Atlanta region and around the world. This track replaces the Biotechnology degree and specifically targets the concepts and techniques necessary to make students marketable across a range of professional opportunities.

Bioinformatics Track: This track is designed to prepare students for professional work or graduate education that uses bioinformatics. Bioinformatics underlies all genomic advances, encompassing principles and techniques for learning from sequence data stored in databases.

Cytogenetics Track: This track is designed to prepare students for a variety of cytogenetic laboratory opportunities, from diagnostic and basic research to graduate studies in molecular cytogenetics. This training program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences¹; students who complete the track are eligible to sit for national certification as a clinical cytogenetic specialist. Students are encouraged to meet with the program director.

Biology Education Track: This track prepares students to teach adolescent learners in middle and high school biological science courses. This program allows students to pursue post-graduate opportunities as a biologist, while also providing professional education courses integrated with school-based teaching internships and mentored support, demonstrating all competencies expected of effective, reform-based science teachers.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this major

- CHEM 1211: General Chemistry I

- CHEM 1211L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
- MATH 1113: Precalculus
- MATH 1190: Calculus I

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Lab/math credit from General Education (2 Credit Hours)
 - BIOL 1107: Biological Principles I
 - BIOL 1107L: Biological Principles I Laboratory
 - BIOL 1108: Biological Principles II
 - BIOL 1108L: Biological Principles II Laboratory
 - PHYS 1111: Introductory Physics I
 - PHYS 1111L: Introductory Physics Laboratory I
or
 - PHYS 2211: Principles of Physics I
 - PHYS 2211L: Principles of Physics Laboratory I
AND
 - PHYS 1112: Introductory Physics II
 - PHYS 1112L: Introductory Physics Laboratory II
or
 - PHYS 2212: Principles of Physics II
 - PHYS 2212L: Principles of Physics Laboratory II
 - CHEM 1211: General Chemistry I *
 - CHEM 1211L: General Chemistry I Laboratory *
 - AND
 - CHEM 1212: General Chemistry II *
 - CHEM 1212L: General Chemistry II Laboratory *
- * If not taken in General Education

Upper Division Major Requirements (48 Credit Hours)

I. Biology Core Courses

- BIOL 3300: Genetics
- BIOL 3300L: Genetics Laboratory
- BIOL 3370: Ecology
- BIOL 3370L: Ecology Laboratory
- BIOL 3410: Cell Biology
- BIOL 4399: Seminar ²

II. Statistics Requirements

- STAT 3125: Biostatistics

III. Organic Chemistry Requirements

- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II

IV.A. General Biology Track (25 Credit Hours)

- Any 3000 or 4000-level Biology course (with the exception of BIOL 3317 or BIOL 3396).
- A student must have a minimum of four (4) laboratory courses: BIOL 3300L, BIOL 3370L; plus any two upper-level Biology laboratory courses of the student's choosing (BIOL 3110L, 4400, or 4402 may count for only 1 of these).
- A student may include up to 4 credit hours of any 3000 or 4000-level Physics, Chemistry, Math, Statistics, GIS, or SCI 3360, HIST 3377, POLS 4456, PSY 4410, or BIOL 3398.

See footnote 3.

IV.B. Pre-Professional Track (25 Credit Hours)

Pre-M.D./Dentistry/Optomety/Pharmacy

- For notes on Pre-M.D. see footnote 4.
- For notes on Pre-Optometry see footnote 5.
- For notes on Pre-Pharmacy see footnote 6.

Required Courses (10 Credit Hours)

- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 4431: Human Physiology
- BIOL 4431L: Human Physiology Laboratory
- CHEM 3500: Biochemistry

Electives (15 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3315K: Vertebrate Zoology
- BIOL 3327: Medical Genetics
- BIOL 3375K: Behavioral Biology
- BIOL 3338K: Histology
- BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval
- BIOL 4115: Parasitology

- BIOL 4350K: Comparative Vertebrate Anatomy
- BIOL 4390K: Developmental Biology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4431L: Human Physiology Laboratory
- BIOL 4432K: Human Anatomy
- BIOL 4440: Toxicology
- BIOL 4460K: Medical Microbiology
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4486: Bioethics
- CHEM 3010: Medicinal Chemistry
- CHEM 3500L: Biochemistry Laboratory

Pre-D.V.M.

Required Courses (14 Credit Hours)

- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 4350K: Comparative Vertebrate Anatomy
- BIOL 4431: Human Physiology
- CHEM 3500: Biochemistry

Electives (11 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3315K: Vertebrate Zoology
- BIOL 3327: Medical Genetics
- BIOL 3338K: Histology
- BIOL 3375K: Behavioral Biology
- BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval
- BIOL 4115: Parasitology
- BIOL 4390K: Developmental Biology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4440: Toxicology
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4486: Bioethics
- BIOL 4431L: Human Physiology Laboratory
- BIOL 4432K: Human Anatomy
- BIOL 4460K: Medical Microbiology

- CHEM 3010: Medicinal Chemistry
- CHEM 3500L: Biochemistry Laboratory

IV.C. Cell, Molecular, and Developmental Biology Track (25 Credit Hours)

Required Courses (11 Credit Hours)

- BIOL 4100K: Molecular Genetics
- BIOL 4390K: Developmental Biology
- CHEM 3500: Biochemistry
or
- CHEM 3501: Biochemistry I: Structure and Function of Biological Macromolecules ⁷
- CHEM 3500L: Biochemistry Laboratory
or
- CHEM 3501L: Biochemistry I Laboratory ⁷

Electives (14 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3301K: Introduction to Biotechnology
- BIOL 3327: Medical Genetics
- BIOL 3338K: Histology
- BIOL 3398: Practical Internship
- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4411K: Stem Cell Technology
- BIOL 4412K: Cell and Tissue Culture
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4486: Bioethics
- BIOL 4490: Special Topics in Biology
- BIOL 4630: Advanced Topics in Cell & Molecular Biology
- CHEM 3502: Biochemistry II: Metabolism
- CHEM 3540L: Advanced Biochemistry Laboratory
- CHEM 4500K: Methods in Nucleic Acid and Protein Biochemistry

IV.D. Ecology and Environmental Biology Track (25 Credit Hours)

Required Courses (17 Credit Hours)

Organismal Courses (at least 8 Credit Hours)

- BIOL 3310K: Invertebrate Zoology
- BIOL 3315K: Vertebrate Zoology
- BIOL 3320K: Plant Morphology
- BIOL 3330K: Biology of the Algae
- BIOL 3335: Natural History of Georgia
- BIOL 3372K: Aquatic Biodiversity
- BIOL 3700K: Ichthyology
- BIOL 4322: Plant Systematics

Concept and Techniques Courses (at least 9 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3250K: Ecosystem Ecology
- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 3371K: Freshwater Ecology
- BIOL 3373K: Methods in Aquatic Ecology
- BIOL 3375K: Behavioral Biology
- BIOL 3380: Evolutionary Biology
- BIOL 3650: Marine Biology
- BIOL 3720: Sustainability at KSU
- BIOL 4242K: Ecological Genetics
- BIOL 4333: WIKled Biology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4422K: Plant Ecology
- BIOL 4440: Toxicology

Electives (8 Credit Hours)

- Any 3000 or 4000-level Biology course (with the exception of BIOL 3317, BIOL 3396, or BIOL 3398). A student may include up to 4 credits of any 3000 or 4000-level Physics, Chemistry, Math, Statistics, GIS, or HIST 3377 or POLS 4456.

See footnote 3.

IV.E. Plant Biology Track (25 Credit Hours)

Required Courses (16 Credit Hours)

- BIOL 3320K: Plant Morphology
- BIOL 4322: Plant Systematics
- BIOL 4420K: Plant Physiology

- BIOL 4422K: Plant Ecology

Electives (9 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3250K: Ecosystem Ecology
- BIOL 3301K: Introduction to Biotechnology
- BIOL 3330K: Biology of the Algae
- BIOL 3335: Natural History of Georgia
- BIOL 3372K: Aquatic Biodiversity
- BIOL 4100K: Molecular Genetics
- BIOL 4242K: Ecological Genetics
- BIOL 4333: WIKled Biology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4412K: Cell and Tissue Culture
- BIOL 4620: Advanced Topics in Ecology & Evolution
- BIOL 4630: Advanced Topics in Cell & Molecular Biology
- BIOL 4490: Special Topics in Biology
- CHEM 3500: Biochemistry
- ENVS 3100K: Soil & Water Science
- ENVS 4000K: Wetlands and Mitigation
- GEOG 3900: Biogeography

IV.F. Microbiology Track (25 Credit Hours)

Required Courses (8 Credit Hours)

- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 3341K: Advanced Microbiology

Electives (17 Credit Hours)

See footnote 8.

- BIOL 3110L: Directed Methods
- BIOL 3301K: Introduction to Biotechnology
- BIOL 4115: Parasitology
- BIOL 3398: Practical Internship
- BIOL 4200: Industrial Microbiology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4460K: Medical Microbiology
- BIOL 4465: Immunology

- BIOL 4475: Virology
- BIOL 4480: Food Microbiology
- BIOL 4490: Special Topics in Biology
- BIOL 4620: Advanced Topics in Ecology & Evolution
- BIOL 4630: Advanced Topics in Cell & Molecular Biology
- BIOL 4635: Advanced Topics in Microbiology
- BIOL 4800K: Diagnostic Microbiology

IV.G. Biotechnology Track (25 Credit Hours)

Required Courses (18 Credit Hours)

See footnote 7.

- BIOL 3301K: Introduction to Biotechnology
- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 4100K: Molecular Genetics

- CHEM 3500: Biochemistry
or
- CHEM 3501: Biochemistry I: Structure and Function of Biological Macromolecules

- CHEM 3500L: Biochemistry Laboratory
or
- CHEM 3501L: Biochemistry I Laboratory

Electives (7 Credit Hours)

See footnote 3.

- BIOL 3110L: Directed Methods
- BIOL 3341K: Advanced Microbiology
- BIOL 3398: Practical Internship
- BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval
- BIOL 4110K: Global Biotechnology-Study Abroad
- BIOL 4200: Industrial Microbiology
- BIOL 4400: Directed Study
- BIOL 4402: Research Internship
- BIOL 4411K: Stem Cell Technology
- BIOL 4412K: Cell and Tissue Culture
- BIOL 4455: Case Studies in Forensic Science
- BIOL 4460K: Medical Microbiology
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4480: Food Microbiology
- BIOL 4486: Bioethics

- BIOL 4490: Special Topics in Biology
- BIOL 4500K: Bioinformatics I
- BIOL 4510K: Bioinformatics II
- BIOL 4550: Cancer Biology
- BIOL 4630: Advanced Topics in Cell & Molecular Biology
- BIOL 4800K: Diagnostic Microbiology
- CHEM 3502: Biochemistry II: Metabolism
- CHEM 3540L: Advanced Biochemistry Laboratory
- CHEM 3010: Medicinal Chemistry

IV. H. Bioinformatics Track (25 Credit Hours)

Required Courses (22 Credit Hours)

- BIOL 4100K: Molecular Genetics
- BIOL 4490: Special Topics in Biology
- BIOL 4500K: Bioinformatics I
- BIOL 4510K: Bioinformatics II
- CSE 130I: Programming and Problem Solving I

- CHEM 3500: Biochemistry
or
- CHEM 350I: Biochemistry I: Structure and Function of Biological Macromolecules

Electives (3 Credit Hours)

- Any 3000 or 4000-level Biology course (with the exception of BIO 3317, 3396, or 3398). A student may include CHEM 3500L and CHEM 3500L or CHEM 350I and CHEM 350IL (see footnote 7).
- See footnote 3.

IV.I. Cytogenetics Track (25 Credit Hours)

Required Courses (17 Credit Hours)

- BIOL 3327: Medical Genetics
- BIOL 4300K: Chromosome Preparation and Analysis
- BIOL 4310L: Cytogenetics Practicum

Electives (8 Credit Hours)

- Any 3000 or 4000-level Biology course (with the exception of BIOL 3317, BIOL 3396, or BIOL 3398). A student may include CHEM 3500 and CHEM 3500L or CHEM 350I and CHEM 350IL⁷.
- See footnote 3.

IV.J. Biology Education Track (39 Credit Hours)

Biology Content Courses (10 Credit Hours)

- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- 4 credits of any 3000 or 4000-level BIOL course (with the exception of BIOL 3317)

- BIOL 3110L: Directed Methods
or
- BIOL 4400: Directed Study *
- or
- BIOL 3398: Practical Internship
or
- BIOL 4402: Research Internship

*Only 2 credits.

Professional Education Courses (29 Credit Hours)

- EDSM 1101: Step 1: Inquiry Approaches to Teaching
- EDSM 1102: Step 2: Inquiry-based Lesson Planning
- EDSM 2010: Knowing and Learning in Science
- ITEC 3300: Improving Learning with Technology in High School Classrooms
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- INED 4435: Foundations of Teaching Adolescent English Learners
- INED 4436: Foundations of Teaching Adolescent English Learners II
- SCED 2421: Classroom Interactions
- SCED 3010: Perspectives in Teaching Science
- BED 4422: Project-based Instruction
- BED 4660: Yearlong Clinical Experience

Free Electives (0-12 Credit Hours)

Any credit courses in university curriculum.

Program Total (120 - 122 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123-125 Credit Hours)

Notes:

¹ NAACLS: www.naacls.org; 773-714-8880; 5600 North River Road, Suite 720, Rosemont, Illinois 60018-5119

²BIOL 4399 may only be taken once for credit toward a biology degree.

³ A maximum of 8 hours from BIOL 3110, BIOL 4400, BIOL 4402, and/or BIOL 4450 can be used to satisfy biology upper-level electives. Credit for BIOL 3317 and BIOL 3396 can be applied to Free Electives only.

⁴ Students should take PSYC 3105 and COMI 100 in Area B and are encouraged to take some of the following in Free Electives: PSYC 3105, SOCI 1101, HPE 3300, PSYC3200, SOCI 3380, HPE 4500.

⁵ Students should take PSYC2105 and FLI002 in Area B, ENGL2110 and ART1107 in Area C, and are encouraged to take some of the following in Free Electives: ART1100, BUSA 1000.

⁶ Students are encouraged to take BIOL2221/2221L and BIOL2222/2222L as Free Electives.

⁷ Students planning on taking CHEM 3501/3501L need to take CHEM2800 and those planning on taking CHEM 4500 need to take CHEM 3501/3501L.

⁸ A maximum of 6 hours from BIOL 3110, BIOL 4400, BIOL 4402, BIOL 3398, and/or BIOL 4110 can be used in this track. Two of the elective classes must have laboratories. A student may include up to 4 credits of any 3000 or 4000-level Physics, Chemistry, Math, GIS, or SCI 3360, HIST 3377, POLS 4456, PSY 4410, or BIOL 3398.

⁹This track consists of 126 credits and allows for no Free Electives.

Biology Minor

College of Science and Mathematics

Contact: Scott A. Reese

Curriculum Coordinator for the Natural Sciences

(470)578-6168

<http://csm.kennesaw.edu/departments-programs/biology-minor.php>

To be eligible for a minor in Biology, the student must complete:

- A minimum of 18 semester hours of BIOL
- 9 of the 18 hours in BIOL must be above the 2XXX level
- Students who use BIOL 1107/1107L and/or BIOL 1108/1108L to satisfy Core D requirements cannot use these courses to satisfy requirements of the minor.

Program Total (18 Credit Hours)

Chemistry B.S.

Bachelor of Science Degree

College of Science and Mathematics,

Department of Chemistry and Biochemistry

(470) 578-6159

<http://csm.kennesaw.edu/chemistry-biochemistry/programs/bs-chemistry.php>

The Department of Chemistry and Biochemistry provides American Chemical Society (ACS)

approved programs. Students completing a baccalaureate degree that meets the ACS Guidelines will receive an 'ACS-certified degree'. Some of the following degree tracks include the course work and experience necessary to satisfy requirements for ACS certification. See an academic advisor for more information on the requirements for ACS certification and other aspects of these tracks.

Professional Chemistry Track: This track is designed to prepare students for graduate school in chemistry or the professional workforce. Students completing this track receive a B.S. degree that is certified by the American Chemical Society.

General Chemistry Track: This track is designed to allow flexibility in choosing supporting discipline credits that support individual career goals. Due to the variety of options in this track, students are strongly encouraged to meet with an academic advisor to plan a course of study that meets graduation requirements. This track can be ACS certified with specific coursework and laboratory experiences. See an advisor for more information.

Forensic Chemistry Track: This track is designed to prepare students for graduate school or a career in the forensic field. This track can be ACS certified with specific coursework and laboratory experiences. See an advisor for more information.

Pharmaceutical Chemistry Track: This track is designed to prepare students for pharmacy school while they work towards a degree in Chemistry. Students may also go to graduate school or work in the pharmaceutical industry after completing this track. As pharmacy school prerequisites change, students need to be diligent in ensuring they are meeting the requirements of the pharmacy school they wish to attend. The streamlining of both the requirements for a degree in chemistry and the needed prerequisites is best done in consultation with an academic advisor. This track can be ACS certified with specific coursework and laboratory experiences. See an advisor for more information.

Chemistry Education Track: This track is designed to prepare chemistry teachers at the secondary school level. It leads to 6-12 grade level teacher certification in the teaching field of chemistry in Georgia.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

Lab/math credit from General Education Area D

- PHYS 221 I: Principles of Physics I *
- PHYS 221 I L: Principles of Physics Laboratory I *
- PHYS 2212: Principles of Physics II *
- PHYS 2212L: Principles of Physics Laboratory II *
- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
- CHEM 2800: Quantitative Analytical Chemistry

- CHEM 2800L: Quantitative Analytical Chemistry Laboratory
- MATH 1190: Calculus I *
- MATH 2202: Calculus II *

**If not taken in General Education.*

Professional Chemistry Track (60 Credit Hours)

Upper Division Major Requirements (36 Credit Hours)

- CHEM 3000: Chemical Literature
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3500: Biochemistry 2
- CHEM 3500L: Biochemistry Laboratory
- CHEM 3601: Physical Chemistry I: Atomic and Molecular Structure and Spectroscopy
- CHEM 3601L: Physical Chemistry Lab I
- CHEM 3602: Physical Chemistry II: Reaction Kinetics and Thermodynamics
- CHEM 3602L: Physical Chemistry Lab II
- CHEM 4300: Instrumental Analytical Chemistry
- CHEM 4310L: Advanced Analytical Chemistry Lab
- Chemistry Elective: Any 3000/4000-level chemistry course I

Choose one from the following:

- CHEM 3398: Internship
- CHEM 4100: Directed Applied Research
- CHEM 4120L: Research Methods Laboratory

Supporting Disciplines (12 Credit Hours)

3000-4000 level course in the College of Science and Math (3 Credit Hours) Electives Courses from any department (including chemistry) should be taken that reflect and complement the student's chemical interests and career goals. (5 Credit Hours)

- MATH 2203: Calculus III

Free Electives (12 Credit Hours)

Any courses in university curriculum.

General Chemistry Track (60 Credit Hours)

Upper Division Major Requirements (28 Credit Hours)

- CHEM 3000: Chemical Literature
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3050: Physical Chemistry
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3500: Biochemistry
- CHEM 4310L: Advanced Analytical Chemistry Lab

Chemistry Elective: Any 3000/4000 level chemistry course (3 Credit Hours)

Choose one of the following:

- CHEM 3030: Pharmaceutical Analytical Chemistry
- CHEM 3800: Forensic Analytical Chemistry
- CHEM 4300: Instrumental Analytical Chemistry

Supporting Disciplines (20 Credit Hours)

- Electives* (11 hours must be at the 3000- or 4000-level)

Sequences of courses from any department (including chemistry) should be taken that reflect and complement the student's chemical interests and career goals.

Free Electives (12 Credit Hours)

Any courses in university curriculum.

Forensic Chemistry Track (60 Credit Hours)

Upper Division Major Requirements (31 Credit Hours)

- CHEM 3000: Chemical Literature
- CHEM 3050: Physical Chemistry
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3500: Biochemistry
- CHEM 3500L: Biochemistry Laboratory
- CHEM 3800: Forensic Analytical Chemistry
- CHEM 4300: Instrumental Analytical Chemistry
- CHEM 4310L: Advanced Analytical Chemistry Lab

Choose One of the Following:

- CHEM 3398: Internship (2 credit hours)

- CHEM 4100: Directed Applied Research (2 credit hours)
- CHEM 4120L: Research Methods Laboratory

Supporting Disciplines (21 Credit Hours)

- CRJU 1101: Foundations of Criminal Justice
- CRJU 3320: Criminal Investigation
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory
- STAT 3125: Biostatistics

Choose One:

- BIOL 3300: Genetics and
- BIOL 3300L: Genetics Laboratory
- or
- BIOL 3338K: Histology
- or
- BIOL 3340: Microbiology and
- BIOL 3340L: Microbiology Laboratory

Free Electives (8 Credit Hours)

Any courses in university curriculum. See advisor for recommendations.

Pharmaceutical Chemistry Track (60 Credit Hours)

Upper-Division Major Requirements (29 Credit Hours)

- CHEM 3000: Chemical Literature
- CHEM 3010: Medicinal Chemistry
- CHEM 3030: Pharmaceutical Analytical Chemistry
- CHEM 3050: Physical Chemistry
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3500: Biochemistry
- CHEM 3500L: Biochemistry Laboratory
- CHEM 4310L: Advanced Analytical Chemistry Lab

Supporting Disciplines (26 Credit Hours)

- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

- BIOL 222I: Human Anatomy & Physiology I
- BIOL 222IL: Human Anatomy & Physiology I Laboratory
- BIOL 2222: Human Anatomy & Physiology II
- BIOL 2222L: Human Anatomy & Physiology II Laboratory
- STAT 3125: Biostatistics
- Choose 7 hours from any CHEM, BIOL, MATH, STAT, PSYC, CRJU, ENVS, PHYS, SCI, MKTG, or MGT 3000- or 4000-level courses

Free Electives (5 Credit Hours)

Chemistry Education Track (62 Credit Hours)

Upper Division Major Requirements (27 Credit Hours)

- CHEM 3050: Physical Chemistry
- CHEM 3105: Inorganic Chemistry
- CHEM 3105L: Inorganic Synthesis
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3400: The Teaching and Learning of Chemistry
- CHEM 3500: Biochemistry
- CHEM 3500L: Biochemistry Laboratory
- CHEM 3XXX/4XXX (3 Credit Hours) Upper level CHEM elective

Choose One of the Following:

- CHEM 3398: Internship (2 credit hours)
- CHEM 4100: Directed Applied Research (2 credit hours)
- CHEM 4120L: Research Methods Laboratory

Professional Education Sequence (31 Credit Hours)

- EDSM 1101: Step 1: Inquiry Approaches to Teaching
- EDSM 1102: Step 2: Inquiry-based Lesson Planning
- EDSM 2010: Knowing and Learning in Science
- ITEC 3300: Improving Learning with Technology in High School Classrooms
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- INED 4435: Foundations of Teaching Adolescent English Learners
- INED 4436: Foundations of Teaching Adolescent English Learners II
- SCED 3010: Perspectives in Teaching Science
- CHED 4422: Project-based Instruction
- CHED 4423: Pedagogical Content Knowledge for Chemistry
- CHED 4660: Yearlong Clinical Experience

- SCED 2421: Classroom Interactions

Supporting Disciplines (4 Credit Hours)

- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory

Program Total (120-122 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123-125 Credit Hours)

Notes:

1 The chemistry elective 3000/4000 course must have one prerequisite from the upper division major requirements. 2 Students may substitute CHEM 3501/L and CHEM 3502 for CHEM 3500/L, in which case CHEM 3502 may count as the 3000/4000 level chemistry elective.

Chemistry Minor

Department of Chemistry and Biochemistry

<http://csm.kennesaw.edu/chemistry-biochemistry/programs/chemistry-minor.php>

The Chemistry minor consists of 16 semester hours, at least 12 of which must be non-duplicative outside the major's primary discipline and beyond the courses required for the student's major and general education requirements. Courses taken in Core Area F (lower division major requirements) may be counted as coursework in the minor. Courses taken to satisfy Core Areas A through E (general education) may not be counted as coursework in the minor. Students must earn a grade of at least "C" in all course work applicable to a formal minor. When a student's major and minor programs require the same courses, the credit hours for some of those courses may be counted toward both the major and minor. However, at least 12 hours of a minor must be non-duplicative with course requirements in the major."

The rule does not allow for a general listing of courses required for a minor, since the courses required for the minor depend on the requirements of the student's major. Therefore, we require that a student develop the minor courses with a chemistry advisor and with the approval of the student's major advisor. Biochemistry majors are excluded from earning a minor in Chemistry. At least 6 hours of chemistry must be taken at KSU to satisfy the minor requirement.

At a minimum, the following courses must be taken as part of a student's course of study for a student to earn a minor in Chemistry.

Required Courses

- CHEM 2800: Quantitative Analytical Chemistry
- CHEM 2800L: Quantitative Analytical Chemistry Laboratory

- CHEM 336I: Modern Organic Chemistry I
- CHEM 336IL: Modern Organic Chemistry Lab I
- Any 3000- or 4000-level CHEM courses to make the non-duplicative number of CHEM credit hours equal to 12, with 16 total CHEM credit hours.

Program Total (16 Credit Hours)

Computational and Applied Mathematics B.S.

Bachelor of Science Degree

College of Science and Mathematics

Department of Mathematics

(470) 578-6327

<http://csm.kennesaw.edu/mathematics/programs/bs-computational-applied-mathematics.php>

The program of study leading to the Bachelor of Science degree in Computational and Applied Mathematics provides a solid foundation in the application of analytical, geometrical, and numerical methods in problem solving and logical deduction. This program is highly customizable. In addition to a core set of mathematics courses, the program also requires completion of a minor or track that prepares the student for graduate study or for employment in various mathematics and statistics-related fields. The program also offers accelerated tracks leading to the MAT teacher certification and the M.S. in applied statistics. The goal of this major is to assist students in acquiring both an understanding of mathematics and an ability to apply it to the sciences.

General Education (42 Credit Hours)

See listing of requirements

Specific General Education Requirements for this Major

- MATH 1190: Calculus I
- MATH 2202: Calculus II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Overflow hour from Calculus I
- MATH 2203: Calculus III
- MATH 2306: Ordinary Differential Equations
- MATH 2332: Probability and Data Analysis
- MATH 2390: Introduction to Logic, Set Theory, and Proofs
- CS 130I: Programming Principles I

Upper Division Major Requirements (22 Credit Hours)

- MATH 3260: Linear Algebra I
- MATH 326I: Numerical Methods I

- MATH 3322: Graph Theory
- MATH 3332: Probability and Inference
- MATH 3324: Enumerative Combinatorics
- MATH 4361: Modern Algebra I
- MATH 4381: Real Analysis I
- Overflow hour from Calculus II

Upper Division Mathematics and Statistics Electives (14 Credit Hours)

Choose 14 credit hours from:

- MATH 3000: Software of Mathematics
- MATH 3204: Calculus IV
- MATH 3272: Introduction to Linear Programming
- MATH 3396: Cooperative Study
- MATH 3398: Internship
- MATH 3405: Probabilistic Foundations of Actuarial Science
- MATH 3496: Elementary Number Theory
- MATH 3696: College Geometry
- MATH 4260: Linear Algebra II
- MATH 4310: Partial Differential Equations
- MATH 4345: Numerical Methods II
- MATH 4362: Modern Algebra II
- MATH 4382: Real Analysis II
- MATH 4391: Complex Analysis
- MATH 4400: Directed Study
- MATH 4490: Special Topics in Mathematics
- MATH 4596: Topology
- MATH 4699: Undergraduate Research
- STAT 3010: Computer Applications of Statistics
- STAT 3120: Statistical Methods I
- STAT 3125: Biostatistics
- STAT 3130: Statistical Methods II
- STAT 3396: Cooperative Study
- STAT 3398: Internship
- STAT 4025: Clinical Trial Design
- STAT 4030: Programming in R
- STAT 4120: Applied Experimental Design
- STAT 4125: Design and Analysis of Human Studies
- STAT 4210: Applied Regression Analysis
- STAT 4310: Statistical Data Mining
- STAT 4330: Applied Binary Classification
- STAT 4400: Directed Study

- STAT 4490: Special Topics in Statistics

Formal Minor or Track Electives (15 Credit Hours)

Complete a formal minor, or complete one of the following B.S. Computational & Applied Mathematics Tracks:

1. Combined study in MATHEMATICS & STATISTICS
 - Any 15 hours from Upper Division Electives. Many different directions can be taken with these 15 additional hours such as concentrations on mathematical applications in continuous or discrete areas, preparation for graduate programs in mathematics, etc. Consult with your advisor to carefully select the courses that best suit your career plans.
2. Accelerated Bachelor's Master's Degree Option for Kennesaw State University's MASTER OF SCIENCE in APPLIED STATISTICS.
 - Take the maximum number of MSAS graduate courses. Complete the rest of the track with any additional courses for Upper Division Electives.
3. Accelerated Bachelor's Master's Degree Options for Kennesaw State University's MASTER OF ART in TEACHING SECONDARY MATHEMATICS.
 - Take the maximum allowed number of MAT graduate courses. Complete the rest of the track with any additional courses from the following list:
 - ◇ MATH 3295 - Mathematics for Middle and Secondary Teachers
 - ◇ MATH 3395 - Geometric Proofs and Applications
 - ◇ MATH 3495 - Advanced Perspectives on School Math I
 - ◇ MATH 4495- Advanced Perspectives on School Math II

Free Electives (9 Credit Hours)

Any credit courses in the university curriculum.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Environmental Science Minor

College of Science and Mathematics

Department of Ecology, Evolution and Organismal Biology

(470) 578-5100

<http://csm.kennesaw.edu/eeob/programs/environmental-science-minor.php>

Required Courses (8 Credit Hours)

- ENVS 2202K: Introduction to Environmental Science
- BIOL 3370: Ecology
- BIOL 3370L: Ecology Laboratory

Elective Courses (7 Credit Hours)

- BIOL 3371K: Freshwater Ecology
- BIOL 3650: Marine Biology
- BIOL 4431: Human Physiology
- BIOL 4486: Bioethics
- CHEM 3700: Environmental Chemistry
- CHEM 3710L: Environmental Chemistry Lab
- ENVS 3100K: Soil & Water Science
- ENVS 3350: Oceanography
- GEOG 3315: Introduction to Geographic Information Systems
- POLS 3356: U.S. Environmental Policy & Politics
- ENVS 4300: Environmental Ethics

Program Total (15 Credit Hours)

Environmental Science, B.S.

Bachelor of Science Degree

College of Science and Mathematics

Department of Ecology, Evolution and Organismal Biology

(470) 578-5100

<http://csm.kennesaw.edu/eeob/programs/bs-environmental-science.php>

Environmental Science is a broad and interdisciplinary field primarily concerned with the interrelationships between the lithosphere, the hydrosphere, the atmosphere, and the biosphere. It integrates diverse scientific disciplines such as biology, chemistry, physics, geology, hydrology, atmospheric science, oceanography, and toxicology. Environmental science also touches on many other disciplines such as engineering, psychology, economics, communications, business, and public policy. Environmental science is very inclusive, because we all interact with the environment every single day and it is so critical to our survival.

Kennesaw State University's Bachelor of Science degree in Environmental Science provides students a truly interdisciplinary program drawing on faculty expertise and existing courses in the natural sciences, engineering technology, policy, and law. Students completing this program are prepared to enter into industry, consulting, state agencies, or advanced professional programs in the environmental sciences. Graduates will be educated in assessment and control of pollutants, remediation and restoration of toxic sites, sustainable development, management and conservation of natural resources, and conducting environmental research.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

- MATH 1190: Calculus I
- MATH 1113: Precalculus
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Lab/Math credit from General Education (2 credit hours)
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory

- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I
or
- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory I

- GEOL 1121K: Introductory Geosciences I

Upper Division Major Requirements (49-51 Credit Hours)

I. Environmental Science Core Courses

- ENVS 2202K: Introduction to Environmental Science
- BIOL 3300: Genetics
- BIOL 3300L: Genetics Laboratory
- BIOL 3370: Ecology
- BIOL 3370L: Ecology Laboratory

- BIOL 4486: Bioethics
or
- ENVS 4300: Environmental Ethics

- ENVS 3100K: Soil & Water Science

II. Statistics Requirements

- STAT 3125: Biostatistics

III. Chemistry Requirements

- CHEM 336I: Modern Organic Chemistry I
- CHEM 336IL: Modern Organic Chemistry Lab I
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3700: Environmental Chemistry
- CHEM 3710L: Environmental Chemistry Lab

IV. Political Science Requirement

- POLS 3356: U.S. Environmental Policy & Politics
- ENVS 3450: Conservation Biology

V. Surveying Requirement

- SURV 2110: Introduction to Mapping

VI. Environmental Science Electives (8-10 Credit Hours)

Choose from the list below:

- BIOL 3310K: Invertebrate Zoology
- BIOL 3315K: Vertebrate Zoology
- BIOL 4422K: Plant Ecology
- BIOL 3340: Microbiology
- BIOL 3250K: Ecosystem Ecology
- BIOL 3371K: Freshwater Ecology
- BIOL 3650: Marine Biology
- BIOL 3700K: Ichthyology
- BIOL 3372K: Aquatic Biodiversity
- BIOL 3320K: Plant Morphology
- BIOL 3380: Evolutionary Biology
- BIOL 4115: Parasitology
- CHEM 2800: Quantitative Analytical Chemistry
- CHEM 2800L: Quantitative Analytical Chemistry Laboratory
- CHEM 370I: Atmospheric Chemistry
- ENVS 3398: Internship
- ENVS 3350: Oceanography
- ENVS 3150K: Environmental Toxicology
- ENVS 3730: Natural Resource Management
- ENVS 3450: Conservation Biology
- ENVS 4000K: Wetlands and Mitigation

- STAT 3010: Computer Applications of Statistics
- STAT 3130: Statistical Methods II
- STAT 4120: Applied Experimental Design
- SURV 3421: Geographic Information Systems I
- SURV 4420: Remote Sensing
- SURV 4422: Geographic Information Systems II

Free Electives (9-11 Credit Hours)

Any credit courses in the university curriculum

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Mathematics B.S.

Bachelor of Science Degree

College of Science and Mathematics

Department of Mathematics

(470) 578-6327

<http://csm.kennesaw.edu/mathematics/programs/bs-mathematics.php>

The program of study leading to the Bachelor of Science degree in Mathematics offers formal training in problem solving, critical and quantitative thinking and logical argument. With these highly employer-valued skills, the B.S. in Mathematics is intended for students deeply interested in mathematics and wishing to pursue a career in a mathematical field or graduate study.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education requirements for this major

- MATH 1190: Calculus I
- MATH 2202: Calculus II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Overflow hour from Calculus I
- MATH 2203: Calculus III
- MATH 2390: Introduction to Logic, Set Theory, and Proofs
- MATH 2306: Ordinary Differential Equations
- MATH 2332: Probability and Data Analysis
- CS 1301: Programming Principles I

Upper Division Major Requirements (28 Credit Hours)

- Overflow hour from Calculus II
- MATH 3204: Calculus IV
- MATH 3260: Linear Algebra I

- MATH 3322: Graph Theory
or
- MATH 3324: Enumerative Combinatorics

- MATH 4260: Linear Algebra II
- MATH 4361: Modern Algebra I
- MATH 4362: Modern Algebra II
- MATH 4381: Real Analysis I
- MATH 4382: Real Analysis II
- MATH 4391: Complex Analysis

Upper Division Mathematics Electives (12 Credit Hours)

Choose 12 credit hours from:

- MATH 3000: Software of Mathematics

- MATH 3261: Numerical Methods I
or
- MATH 2335: Numerical Methods for Engineers

- MATH 3272: Introduction to Linear Programming

- MATH 3322: Graph Theory
or
- MATH 3324: Enumerative Combinatorics

- MATH 3332: Probability and Inference
- MATH 3396: Cooperative Study
- MATH 3398: Internship
- MATH 3405: Probabilistic Foundations of Actuarial Science
- MATH 3496: Elementary Number Theory
- MATH 3696: College Geometry
- MATH 4310: Partial Differential Equations
- MATH 4345: Numerical Methods II
- MATH 4400: Directed Study
- MATH 4490: Special Topics in Mathematics
- MATH 4596: Topology
- MATH 4699: Undergraduate Research

Guided Electives (20 Credit Hours)

May include additional mathematics courses or other courses as approved by an advisor.

Notes:

Science Requirement - If not fulfilled in Area D, then coursework must be completed as Guided Electives.

- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123 Credit Hours)

Mathematics Education B.S.

Bachelor of Science Degree

Leading to Certification for Grades 6-12

College of Science & Mathematics

Department of Mathematics and Statistics

(470) 578-6327

<http://csm.kennesaw.edu/mathematics/programs/bs-mathematics-education.php>

This single field program is designed to prepare mathematics teachers of adolescents, largely at the secondary school level (grades 6 through 12). It leads to 6-12 teacher certification in the teaching field of mathematics in Georgia. Candidates complete the equivalent of a major in mathematics and a second major in pedagogical studies with an emphasis on teaching mathematics.

The B.S. in Mathematics Education is fully accredited by NCATE, the National Council for Accreditation of Teacher Education, is fully approved by Georgia's Professional Standards Commission for 6-12 teacher certification, and is nationally recognized by NCTM, the National Council of Teachers of Mathematics.

A degree is granted by Kennesaw State University upon completion of all university and program requirements while meeting minimum requirements. Individuals completing a program in education that prepares teachers at the baccalaureate level, and petitioning KSU for a degree, are expected to have met the following requirements:

1. Grades of 'C' or better in all Lower-Division Major Requirements (Area F), Teaching Field, and Professional Education course work.
2. A 2.75 adjusted GPA in all course work at Kennesaw State University.

3. Responsible professional behavior in all classes, field experiences, and interactions with peers, staff, and faculty.
4. The candidate should complete the Dispositions self-evaluation instrument on Chalk and Wire at the beginning of MATH 3295, end of MATH 3495 and MAED 4416.
5. Attempted the Georgia PSC Ethics Exit Exam #360.
6. Attempted the GACE Mathematics Content Assessments #022-023.
7. Attempted the edTPA.
8. Successful completion of Student Teaching or Yearlong Clinical Experience while demonstrating the achievement of program and unit outcomes and proficiencies through the following:
 - (a) The entire Yearlong Clinical Experience or one entire semester of Student Teaching that includes including eight to ten continuous weeks of full-time teaching (during one semester), unless otherwise stated by the program area.
 - (b) Intern Keys - the evaluation instrument used for field experiences (c) End-of-semester YCE/Student Teaching surveys from school-based personnel. Also note that posting of the degree is required for processing of state teacher certification paperwork.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

- MATH 1190: Calculus I
- MATH 2202: Calculus II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- One overflow hour from MATH 1190
- One overflow hour from MATH 2202
- EDUC 2110: Investigating Critical and Contemporary Issues in Education
- EDUC 2120: Sociocultural Influences on Teaching and Learning
- MATH 2332: Probability and Data Analysis
- MATH 2390: Introduction to Logic, Set Theory, and Proofs
- MATH 2203: Calculus III

Teaching Field Requirements (24 Credit Hours)

- MATH 3260: Linear Algebra I
- MATH 3295: Mathematics for Middle Grades and Secondary Teachers
- MATH 3395: Geometric Proofs and Applications
- MATH 3495: Advanced Perspectives on School Mathematics I
- MATH 4361: Modern Algebra I
- MATH 4495: Advanced Perspectives on School Mathematics Part II

- Six credit hours selected from any 3000/4000 level Mathematics or Statistics courses except MATH 3316, 3317, 3318, 3390. Note: at most 9 total hours of credit can be given for MATH 3398 (Internship) and at most 3 of these hours can be used as a Teaching Field Elective.

Professional Education (6-12) Requirements (34 Credit Hours)

- MAED 3475: Historical and Modern Approaches to Mathematics
- MAED 4415: Teaching of Mathematics I (6 - 12)
- MAED 4416: Teaching of Mathematics II (6 - 12)
- INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- INED 4435: Foundations of Teaching Adolescent English Learners
- INED 4436: Foundations of Teaching Adolescent English Learners II
- ITEC 3300: Improving Learning with Technology in High School Classrooms
- EDUC 4610: Introduction to the Yearlong Clinical Experience
- MAED 4650: Yearlong Clinical Experience I
- MAED 4660: Yearlong Clinical Experience II
- EDUC 2130: Exploring Teaching and Learning

Free Electives (3 Credit Hours)

Any courses in the university curriculum.

Program Total (121 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (124 Credit Hours)

Mathematics Minor

Department of Mathematics

(470) 678-6327

<http://csm.kennesaw.edu/mathematics/programs/mathematics-minor.php>

Required Courses (4 Credit Hours)

- MATH 2203: Calculus III

Elective Courses (11 Credit Hours)

Choose 11 additional hours with at least 9 hours at the 3000- or 4000-level from the following:

- MATH 2306: Ordinary Differential Equations
- MATH 2332: Probability and Data Analysis

- MATH 2390: Introduction to Logic, Set Theory, and Proofs
or
- MATH 2345: Discrete Mathematics

- MATH 3000: Software of Mathematics
- MATH 3204: Calculus IV
- MATH 3260: Linear Algebra I

- MATH 3261: Numerical Methods I
or
- MATH 2335: Numerical Methods for Engineers

- MATH 3272: Introduction to Linear Programming
- MATH 3322: Graph Theory
- MATH 3324: Enumerative Combinatorics
- MATH 3332: Probability and Inference
- MATH 3405: Probabilistic Foundations of Actuarial Science
- MATH 3496: Elementary Number Theory
- MATH 3696: College Geometry
- MATH 4260: Linear Algebra II
- MATH 4310: Partial Differential Equations
- MATH 4345: Numerical Methods II
- MATH 4361: Modern Algebra I
- MATH 4362: Modern Algebra II
- MATH 4381: Real Analysis I
- MATH 4382: Real Analysis II
- MATH 4391: Complex Analysis
- MATH 4400: Directed Study
- MATH 4490: Special Topics in Mathematics
- MATH 4596: Topology
- MATH 4699: Undergraduate Research

Program Total (15 Credit Hours)

Physics B.S.

Bachelor of Science Degree

College of Science and Mathematics

Department of Physics

(470) 578-7215

<http://csm.kennesaw.edu/physics/programs/bs-physics.php>

The program of study in physics leading to a Bachelor of Science degree provides students with the opportunity to pursue a major field of concentration in physics with the necessary

specialization to succeed in a wide array of post-baccalaureate opportunities. The following degree tracks include the course work and experience necessary for student success. See an academic advisor for specific course information and important aspects of each of these tracks.

General Physics Track: Physics is the study of matter, motion, force and energy across space and time. This area of study is wide-ranging and math-intensive; students who earn a Bachelor's degree in physics develop broad analytical skills and are well prepared to pursue graduate education in physics or related areas of study. Other graduates pursue careers in the engineering, computer science or other STEM-related areas.

Electrical Engineering Track: This BS degree with a concentration in electrical engineering combines the study of physics with 25 credit hours of courses in electrical engineering, thus further broadening the students' analytical skills. In addition, adding electrical engineering courses will increase the marketability of the physics student.

Mechanical Engineering Track: This BS degree with a concentration in mechanical engineering combines the study of physics with 29 credit hours of courses in mechanical engineering. This curriculum design helps to further broaden the students' analytical skills. In addition, adding skills developed in mechanical engineering courses will increase the marketability of the physics student.

Physics Education Track: The Physics Education track is an option that allows undergraduate students to obtain the skills they need to be successful teachers. The physics degree provides the necessary content knowledge, the education courses provide the foundations of how to teach while the physics education courses brings the two together so that individuals not only know physics and how to teach but more importantly how to teach physics in the classroom.

General Education (42 Credit Hours)

See listing of requirements.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- PHYS 221 I: Principles of Physics I
- PHYS 221 IL: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- PHYS 2213: Principles of Physics III I
- MATH 2202: Calculus II
- MATH 2203: Calculus III

Upper Division Major Requirements (48-68 Credit Hours)

I. Physics Core Courses: (23 credits)

- PHYS 3210: Intermediate Mechanics
- PHYS 3220: Electromagnetism I
- PHYS 3500K: Introduction to Computational Physics
- PHYS 3710: Modern Physics

- PHYS 3720L: Modern Physics Laboratory
- PHYS 4210: Quantum Physics
- PHYS 4230: Thermal Physics

II. Math Requirement (3 Credit Hours)

- MATH 2306: Ordinary Differential Equations (must pass with a "C" or better)

IIIa. General Physics Track (34 Credit Hours)

See Note 2 below.

Required Courses (8 Credit Hours)

- ◇ PHYS 3260: Mathematical Physics
- ◇ PHYS 3410K: Electronics Laboratory
- ◇ PHYS 4410K: Advanced Physics Laboratory
- ◇ PHYS 4430: Capstone Physics Project

Electives (23 Credit Hours)

- ◇ Any 3000 or 4000-level course in Physics, Math, Engineering, or Computing. A minimum of 9 of these credits must be in Physics.

IIIb. Electrical Engineering Track (31 Credit Hours)

See Note 1 below.

Required Courses (31 Credit Hours)

- ◇ PHYS 4240: Solid State Physics
- ◇ EE 2301: Circuit Analysis I
- ◇ EE 2302: Circuit Analysis II
- ◇ EE 2501: Digital Logic Design
- ◇ EE 2401: Semiconductor Devices
- ◇ EE 3701: Signals and Systems
- ◇ EE 3401: Engineering Electronics
- ◇ EE 4201: Control Systems
- ◇ ENGR 2214: Engineering Mechanics - Statics

IIIc. Mechanical Engineering Track (33 Credit Hours)

See Note 1 below.

Required Courses (33 Credit Hours)

- ◇ EDG 1211: Engineering Graphics I
- ◇ ENGR 2214: Engineering Mechanics - Statics
- ◇ ENGR 3122: Engineering Mechanics - Dynamics
- ◇ ENGR 3125: Machine Dynamics & Vibrations

- ◇ ENGR 3131: Strength of Materials
- ◇ ENGR 3132: Strength of Materials Lab
- ◇ ENGR 3343: Fluid Mechanics
- ◇ ENGR 3345: Fluid Mechanics Laboratory
- ◇ ME 3101: Materials Science and Engineering
- ◇ ME 4141: Machine Design I
- ◇ ME 4250: Computer Aided Engineering

IIId. Physics Education Track (35 Credit Hours)

See Note 2 below.

Supporting Discipline Requirement (3 Credit Hours)

- ◇ BIOL 1107: Biological Principles I
- or
- ◇ CHEM 1212: General Chemistry II

Note: If BIOL 1107 and/or CHEM 1211 is taken in General Education Requirements Area D, CHEM 1212 should be taken. If CHEM 1211 and CHEM 1212 are taken in General Education Requirements Area D, BIOL 1107 should be taken.

Professional Education Courses (32 Credit Hours)

- ◇ EDSM 1101: Step 1: Inquiry Approaches to Teaching
- ◇ EDSM 1102: Step 2: Inquiry-based Lesson Planning
- ◇ EDSM 2010: Knowing and Learning in Science
- ◇ ITEC 3300: Improving Learning with Technology in High School Classrooms
- ◇ INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I
- ◇ INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II
- ◇ INED 4435: Foundations of Teaching Adolescent English Learners
- ◇ INED 4436: Foundations of Teaching Adolescent English Learners II
- ◇ SCED 3010: Perspectives in Teaching Science
- ◇ PHED 3372: Physics Education Research Methods
- ◇ SCED 2421: Classroom Interactions
- ◇ PHED 4422: Project-based Instruction
- ◇ PHED 4423: Pedagogical Content Knowledge for Physics
- ◇ PHED 4660: Yearlong Clinical Experience

Free Electives (3 Credit Hours)

Any credit courses in the university curriculum.

Program Total (120-121 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Notes:

Students are strongly encouraged to take MATH 1190 in Area A, and CHEM 1211 and CHEM 1211L in Area D.

This track has 121 credits and no Free Electives.

Physics Minor

College of Science and Mathematics

Department of Physics

(470) 578-4205

<http://csm.kennesaw.edu/physics/programs/physics-minor.php>

To be eligible for a minor in Physics, the student must complete at least 15 hours of course work in physics with at least 10 hours in upper division physics courses.

Program Total (15 Credit Hours)

Southern Polytechnic College of Engineering and Engineering Technology

Aerospace Engineering Minor

The Aerospace Engineering (AE) minor is designed to provide students with sufficient knowledge and skills to allow them to operate as a competent practitioner within the field of aerospace engineering. Students will develop not only technical know-how but also a practical and analytical approach to problem-solving that will allow them to address a range of aerospace engineering challenges.

Student outcomes

1. To provide the opportunity for students to progressively acquire a thorough grounding in the concepts and skills of the central topics in aerospace engineering;
2. To give you the skills and knowledge to deliver solutions to real engineering problems;
3. To show you how engineering works in a business context, enabling you to achieve results within economic constraints;
4. To become effective engineers and undertake lifelong learning particularly for continuing professional development.

Required Courses (6 Credit Hours)

- ISYE 3801: Aerodynamics
- ISYE 4803: Aeronautics Senior Design Project

Electives (9 Credit Hours)

Choose three courses from the following:

- ISYE 3802: Aircraft Design & Performance
- ISYE 3803: Fundamentals of Avionics
- ISYE 4801: Aircraft Propulsion
- ISYE 4802: Helicopter Theory

Program Total (15 Credit Hours)

Civil Engineering B.S.

Civil engineering is the oldest of the engineering disciplines and involves the planning, design, and construction of facilities essential to modern life.

Graduates can look forward to employment by construction companies; city and county engineering departments; state and federal transportation organizations (such as the Georgia Department of Transportation); and civil engineering consulting and design firms. Graduates have the qualifications to enter careers in areas such as, but not limited to, transportation

engineering, structural engineering, environmental engineering, geotechnical engineering, water resource engineering, and construction engineering. Typical job titles for graduates may include construction engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Civil Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of construction projects and the associated systems and resources. Graduates in the area of Civil Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of civil engineering projects and to serve in key leadership positions within the engineering profession.

The Bachelor of Science in Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

The first two years of each undergraduate engineering program's curriculum are considered to be lower division while the remaining two years are considered the upper division. For the most part, upper division engineering courses are those with course numbers in the 3000's and 4000's. In addition to the stated prerequisites and unless otherwise noted in the catalog, students must apply for and be granted Engineering Standing in order to enroll in any upper division engineering course taught in the School of Engineering. (Note: Courses requiring Engineering Standing will include in their list of prerequisites "Test ENGR with a minimum score of Y" or "Engineering Standing" or words to that affect.)

All students enrolled prior to Fall 2014 semester who are majoring in Engineering or Engineering Technology are automatically granted Engineering Standing.

General Education (42 Credit Hours)

See listing of requirements

Required General Education Courses Specific to the Major

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ENGR 2214: Engineering Mechanics - Statics
- SURV 222 I: Surveying I
- SURV 222 I L: Surveying I Lab
- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory

- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
- One Credit Hour from Area A Two Credit Hours from Area D

Upper Division Major Requirements (58 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- ENVS 2202 - Introduction to Environmental Science (eCore)* or
- BIOL 1107: Biological Principles I
- EDG 2160: Civil Graphics and Computer Aided Drafting
- ENGR 3131: Strength of Materials
- ENGR 3132: Strength of Materials Lab
- ENGR 3305: Data Collection and Analysis in Engineering
- ENGR 3324: Project Cost Analysis
- ENGR 3343: Fluid Mechanics
- ENGR 3345: Fluid Mechanics Laboratory
- CE 1000: Orientation to Engineering and Surveying Professions
- CE 2003: Engineering Problem Solving
- CE 3201: Structural Analysis
- CE 3202: Design of Concrete Structures
- CE 3501: Materials for Civil & Construction Engineering
- CE 3502: Materials for Civil & Construction Engineering Lab
- CE 3701: Geotechnical Engineering
- CE 3708: Geotechnical Engineering Lab
- CE 3702: Introduction to Environmental Engineering
- CE 3704: Introduction to Environmental Engineering Laboratory
- CE 4177: Transportation Engineering
- CE 4179: Transportation Engineering Lab
- CE 4703: Engineering Hydrology
- CE 4800: Senior Project
- SURV 4470: Land Development Design

Upper Division Elective Courses (12 Credit Hours)

Select two courses from Civil Engineering Discipline Groups (CEDG) 1 to 3, but not more than one from each CEDG 1 to 3. The remaining two courses may be selected from ANY CEDG 1 to 4.

CEDG I - Environmental Engineering

- CE 3703: Environmental Engineering Design
- CE 4343: Solid Waste Engineering
- CE 4353: Air Pollution Control
- CE 4708: Hazardous Waste Engineering

CEDG 2- Geotechnical/Materials Engineering

- CE 4105: Foundation Design
- CE 4705: Advanced Soil Mechanics

CEDG 3- Transportation Engineering

- CE 4178: Highway Design and Construction
- CE 4706: Pavement Engineering

CEDG 4- Other Engineering

- CE 3398: Internship in Civil Engineering
- CE 4103: Design of Steel Structures
- CE 4704: Engineering Hydraulic Analysis and Design
- CE 4707: Design of Wood Structures
- CM 3040: Building Information Modeling I
- Any Upper-Division (3000's and 4000's) Surveying & Mapping courses

Program Total (130 Credit Hours)

University-Wide Degree Requirements

see listing of requirements

Note: Program is exempt from WELL 1000 course requirement

Graduation Credit Hour Total (130 Credit Hours)

Computer Engineering B.S.

Computer Engineering (CpE) is a dynamic professional field that blends the fields of hardware engineering with software development. Computer engineers are proficient in electrical and electronic engineering, software design, and hardware-software integration. The goal of a computer engineer is to promote the advancement of digital technology, computer networking, and embedded computer systems. Special focus will be placed in this program upon embedded systems design with the integration of sensors, actuators, and communication technologies.

General Education (42 Credit Hours)

See listing of requirements.

Required General Education Courses Specific to the Major

- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- MATH 1190: Calculus I

- MATH 2202: Calculus II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- MATH 2332: Probability and Data Analysis
- MATH 2335: Numerical Methods for Engineers
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- CPE 1000: Computer Engineering Fundamentals
- One credit hour from Area A
- Two credit hours from Area D

Lower-Level Required Courses (12 Credit Hours)

- EE 2301: Circuit Analysis I
- EE 2501: Digital Logic Design
- CSE 1311: C++ Programming for Engineers

Upper-Level Required Courses (46 Credit Hours)

Engineering Standing is required before taking these courses.

- CPE 3000: Computer Organization and Interfacing
- CPE 3020: VHDL Design with FPGAs
- CPE 3030: Advanced Embedded Design
- CPE 3040: Interfacing and Communications
- CPE 4010: Sensors, Actuators, and Integration
- CPE 4020: Device Networks
- CPE 4040: Data Collection and Analysis
- CPE 4800: Senior Project Proposal
- CPE 4850: Senior Project Design
- EE 3401: Engineering Electronics
- EE 4201: Control Systems
- ENGR 3325: Engineering Economic Analysis

Engineering Electives (9 Credit Hours)

Student may choose from any 3xxx/4xxx course in CPE, EE, MTRE, or ME. Engineering standing is required before taking any of these courses.

Program Total (127 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (127 Credit Hours)

Construction Engineering B.S.

Construction Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of construction projects and the associated systems and resources. Graduates of Construction Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of construction projects and to serve in key leadership positions within the construction industry.

Graduates can look forward to employment by construction companies; city and county construction departments; state and federal transportation organizations (such as the Georgia Department of Transportation); and civil engineering consulting and design firms. Graduates have the qualifications to enter careers in construction related fields as well, including construction engineering design, construction operations and management, construction planning and cost estimating. Typical job titles for graduates may include construction engineer, project engineer, project supervisor, construction manager, and design engineer.

The Construction Engineering curriculum offers a balance of coursework in engineering analysis, engineering design, construction practice, and construction management.

The Bachelor of Science in Construction Engineering program is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Required General Education Courses Specific to the Major

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212 L: Principles of Physics Laboratory II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- CHEM 1211: General Chemistry I
- CHEM 1211 L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212 L: General Chemistry II Laboratory
- SURV 2221: Surveying I

- SURV 2221L: Surveying I Lab
- EDG 2160: Civil Graphics and Computer Aided Drafting
- One Credit Hour Math excess from Area A One Credit Hour Physics excess from Area D One Credit Hour Math excess from Area D

Upper Division Major Requirements (69 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- ENVS 2202 Environmental Science (eCore)
or
- MATH 3XXX or 4XXX (Any upper-level math course)
- or
- BIOL 1107: Biological Principles I
- ENGR 2214: Engineering Mechanics - Statics
- ENGR 3131: Strength of Materials
- ENGR 3132: Strength of Materials Lab
- ENGR 3305: Data Collection and Analysis in Engineering
- ENGR 3324: Project Cost Analysis
- ENGR 3343: Fluid Mechanics
- CE 1000: Orientation to Engineering and Surveying Professions
- CE 2003: Engineering Problem Solving
- CE 3201: Structural Analysis
- CE 3501: Materials for Civil & Construction Engineering
- CE 3502: Materials for Civil & Construction Engineering Lab
- CE 4177: Transportation Engineering
- CE 4178: Highway Design and Construction
- CE 4800: Senior Project

Select one of the following three courses:

- CE 3701: Geotechnical Engineering
or
- CE 3702: Introduction to Environmental Engineering
or
- CE 4703: Engineering Hydrology

Select one of the following two courses:

- CE 3202: Design of Concrete Structures
or
- CE 4103: Design of Steel Structures

Select one of the following two courses:

- SURV 4470: Land Development Design
or

- CM 3040: Building Information Modeling I
- CM 3110: Residential and Light Construction Methods
- CM 3420: Construction Estimating and Bid Preparation
- CM 4510: Construction Scheduling
- CM 4560: Construction Project Management
- CM 4710: Construction Safety
- CM 4760: Construction and Real Estate Property Law

Program Total (129 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement

Graduation Credit Hour Total (129 Credit Hours)

Electrical Engineering B.S.

Electrical engineering is arguably the largest discipline of engineering. It focuses on the application of the principles of electricity and its use with electrical devices and systems. In this energy conscious world, a thorough understanding of energy and its uses is essential to the success of an electrical engineer.

Nearly every industry utilizes electrical engineers. Graduates have the qualifications to enter careers in areas such as, but not limited to, telecommunications, computer engineering, manufacturing, aerospace industry, power generation and distribution, alternative energy, robotics, and automation. Typical job titles for graduates may include electrical engineer, electronics engineer, telecommunications engineer, project engineer, planner, project supervisor, consulting engineer, and design engineer.

Electrical Engineering requires rigorous training in basic engineering principles along with the development of skills in the areas of planning and management of design projects and the associated systems and resources. Graduates in the area of Electrical Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of electrical engineering projects and to serve in key leadership positions within the engineering profession.

The Bachelor of Science in Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Courses for this Major:

- COM 1100: Human Communication
- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ENGR 2214: Engineering Mechanics - Statics
- MATH 2203: Calculus III
- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory
- EE 2301: Circuit Analysis I
- One Credit Hour from Area A
- Two Credit Hours from Area D

Other Requirements Specific to the Major: (22 Credit Hours)

- CSE 131 I: C++ Programming for Engineers
- EE 1000: Foundations of Electrical Engineering
- EE 2302: Circuit Analysis II
- EE 2401: Semiconductor Devices
- EE 2501: Digital Logic Design
- MATH 2306: Ordinary Differential Equations
- MATH 2332: Probability and Data Analysis

Note:

Students need to be sure to apply for Engineering Standing prior to the end of their Sophomore year.

Upper Division Major Requirements (33 Credit Hours)

- EE 3501: Embedded Systems
- EE 3605: Electromagnetics
- EE 3701: Signals and Systems
- ENGR 4402: Engineering Ethics
- EE 3401: Engineering Electronics
- EE 3601: Electric Machines
- EE 3702: Communication Systems
- EE 4201: Control Systems
- EE 4701: Professional Practice

- EE 4800: Senior Project

Upper Level Electives (15 Credit Hours)

- EE 3/4XXX - Technical Electives (9 Credit Hours)
- Engineering Science Elective (3 Credit Hours)*
- Math above MATH 2335 (3 Credit Hours)

Program Total (130 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (130 Credit Hours)

Electrical Engineering Technology B.S.

Engineering Technology is a branch of engineering education that emphasizes the practical aspects of engineering rather than abstract concepts or theories. It is a blend of the application of science, engineering knowledge, and technical skills used in support of engineering activities. The Electrical Engineering Technology (EET) program prepares graduates to enter the technical workforce in a variety of fields. Communications, instrumentation, automation, control systems, power, robotics, computers, and medical electronics are but a few of these fields. Within these fields, Electrical Engineering Technology graduates are typically involved in areas such as: development, design, quality assurance, technical documentation, production, maintenance, test, field service, or technical sales.

Laboratory experiences are important components of the EET curriculum. Most EET lecture courses have an associated laboratory course that must be taken concurrently. Also, EET students are required to take ECET 4900 Senior Capstone Design Project as part of their 13 hours of EET electives. Any non-required upper division (3XXX/4XXX) ECET course, with the exception of ECET 3000, may be used for the remainder of their EET electives. Students may also choose one course from outside the major to count as an EET elective. Contact the EET Department to obtain a list of acceptable courses from outside the major that count as an EET elective.

The Electrical Engineering Technology degree is designed to allow flexibility in the choice of EET electives. As an option, students may wish to choose two or more of their electives from a particular area of concentration. Suggested choices are in the areas of communications, embedded systems, and power.

The Bachelor of Science in Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major

- COM 1100: Human Communication
- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus
- MATH 1190: Calculus I
- PHYS 2211: Principles of Physics I *
- PHYS 2211L: Principles of Physics Laboratory I *
- PHYS 2212: Principles of Physics II *
- PHYS 2212L: Principles of Physics Laboratory II *

Note:

*PHYS 1111, PHYS 1111L and PHYS 1112/PHYS 1112L may be substituted for PHYS 2211/PHYS 2211L and PHYS 2212/PHYS 2212L.

Lower Division Major Requirements (Area F) (18 Credit Hours)

- EDG 1210: Survey of Engineering Graphics
- TCOM 2010: Technical Writing
- MATH 2202: Calculus II
- MATH 2306: Ordinary Differential Equations
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- Two Credit Hours from Area D

Required Courses Specific to the Major (55 Credit Hours)

- ECET 1001: Orientation
- ECET 1012: Design Fundamentals
- ECET 1012L: Design Fundamentals Lab
- ECET 1101: Circuits I
- ECET 1101L: Circuits I Lab
- ECET 1200: Digital I
- ECET 1200L: Digital I Lab
- ECET 2111: Circuits II
- ECET 2111L: Circuits II Lab
- ECET 2210: Digital II
- ECET 2210L: Digital II Lab
- ECET 2300: Electronics I
- ECET 2300L: Electronics I Lab
- ECET 2310: Electronics II
- ECET 2310L: Electronics II Lab

- ECET 3400: Data Communications
- ECET 3400L: Data Communications Lab
- ECET 3410: High Frequency Systems
- ECET 3410L: High Frequency Systems Lab
- ECET 3500: Survey of Electric Machines
- ECET 3500L: Survey of Electric Machines Lab
- ECET 3600: Test Engineering
- ECET 3600L: Test Engineering Lab
- ECET 3620: Signals and Systems Analysis
- ECET 3620L: Signals and Systems Analysis Lab
- ECET 3710: Hardware Programming and Interfacing
- ECET 3710L: Hardware Programming and Interfacing Lab
- ECET 4610: Control Systems
- ECET 4610L: Control Systems Lab

Electrical Engineering Technology Electives (13 Credit Hours)

Students may take a combination of any 3000 or 4000 level ECET or REET course approved by the department chair to meet 13 credit hours. Students must take ECET 4900 Senior Capstone Design as an elective. Students may wish to focus their EET electives in a particular area of Electrical Engineering Technology. Suggested choices in the areas of communications, embedded systems, and power, are listed below:

Communications

- ECET 4320: Active Filters
- ECET 4320L: Active Filters Lab
- ECET 4330: Audio Technology
- ECET 4330L: Audio Technology Lab
- ECET 4420: Communications Circuit Applications
- ECET 4420L: Communications Circuit Applications Lab
- ECET 4431: Wireless Communications Systems
- ECET 4431L: Wireless Communications Systems Lab
- ECET 4820: Communications Networks and the Internet
- ECET 4820L: Communications Networks and the Internet Lab
- ECET 4840: Advanced Telecommunications

Embedded Systems

- ECET 3220: Digital III
- ECET 3640: Introduction to Systems Engineering and Robotics
- ECET 3701: Embedded Systems
- ECET 3701L: Embedded Systems Lab
- ECET 3810: Applications of C++, JAVA and HTML
- ECET 3810L: Applications of C++, Java, and HTML Lab
- ECET 4630: Digital Signal Processing

- ECET 4720: Distributed Microcontrollers and PCs
- ECET 4730: VHDL and Field Programmable Gate Arrays
- ECET 4820: Communications Networks and the Internet
- ECET 4820L: Communications Networks and the Internet Lab

Power

- ECET 4510: Power System Analysis
- ECET 4520: Industrial Distribution Systems, Illumination, and the NEC
- ECET 4530: Industrial Motor Control
- ECET 4540: Introduction to Power Electronics
- ECET 4560: Electric Drives
- ECET 4510L: Power System Analysis Lab
- ECET 4515: Power Distribution Systems
- ECET 4515L: Power Distribution Systems Lab
- ECET 4540L: Introduction to Power Electronics Lab
- REET 3030: Energy Storage Systems
- REET 4100: Solar Photovoltaics
- REET 4110: Solar Thermal Systems
- REET 4200: Wind Power Generation
- REET 4210: Oceanic and Hydropower Generation
- REET 4500: Environmental Aspects of Power Generation
- REET 4510: Sustainable Transportation Systems

Program Total (128 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement

Graduation Credit Hour Total (128 Credit Hours)

Engineering Design Graphics Minor

Note: Not available to MET students with a concentration in Engineering Design Graphics.

Requirements

- EDG 1212: Engineering Graphics II

Select four additional courses from the following:

- EDG 3112: Advanced Engineering Graphics
- MET 3332: Rapid Design and Manufacture
- EDG 4111: Surface Modeling
- EDG 4222: CAD Customization and Standards

- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- MET 4112: Computer Aided Engineering & Analysis
or
- ME 4250: Computer Aided Engineering

Program Total (16 Credit Hours)

Environmental Engineering B.S.

Environmental engineering is a diverse field of Civil Engineering that covers both traditional water/waste-water treatment and emerging issues of public health. Much of the world still suffers from a lack of sanitation and clean water and environmental engineers are trained to solve these and many other problems. Environment engineers apply the principles of science and mathematics to protect public health and minimize human impacts on the environment.

Challenges in energy, water resources, solid/hazardous waste, air quality, globalization, climate change, and environmental degradation must be addressed in a comprehensive effort to promote a sustainable and resilient society. Graduates of Kennesaw State University (KSU) Environmental Engineering program are prepared for careers devoted to finding solutions to these and other problems. The KSU Environmental Engineering program provides a comprehensive education with special emphasis on the demands of water pollution, air pollution, water and waste-water treatment, solid and hazardous waste management and treatment, and other emerging environmental issues, including sustainable air, water, and land resources, human health, and environmental restoration. The program prepares students for entry-level environmental engineering jobs in these fields, for admission to graduate programs, and for professional licensure anywhere in the USA and around the world.

Graduates are qualified to work for consultants, federal, state, and local governments. There are professional opportunities as an environmental design engineer, permitting engineer, compliance engineer, environmental specialist, water and waste-water engineer, environmental scientist, and more. The curriculum is tailored to develop professionals who are able to move between the technical and managerial aspects of environmental engineering projects and to serve in key leadership positions within the engineering profession.

General Education Requirements (42 Credit Hours)

See listing of requirements

Required General Education Courses Specific to the Major

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ENGR 2214: Engineering Mechanics - Statics
- SURV 2221: Surveying I
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
- One Credit Hour from Area A
- Two Credit Hours from Area D

Upper Division Major Requirements (57 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- ENVS 2202- Introduction to Environmental Science (eCore)*

- EDG 1211: Engineering Graphics I
or
- EDG 2160: Civil Graphics and Computer Aided Drafting

- ENGR 3131: Strength of Materials
- ENGR 3305: Data Collection and Analysis in Engineering
- ENGR 3324: Project Cost Analysis
- ENGR 3343: Fluid Mechanics
- ENGR 3345: Fluid Mechanics Laboratory
- CE 1000: Orientation to Engineering and Surveying Professions
- CE 3501: Materials for Civil & Construction Engineering
- CE 3502: Materials for Civil & Construction Engineering Lab
- CE 3701: Geotechnical Engineering
- CE 3708: Geotechnical Engineering Lab
- CE 3702: Introduction to Environmental Engineering
- CE 3703: Environmental Engineering Design
- CE 3704: Introduction to Environmental Engineering Laboratory
- CE 4343: Solid Waste Engineering
- CE 4371: Environmental Engineering Laboratory
- CE 4373: Environmental Engineering Microbiology
- CE 4703: Engineering Hydrology
- CE 4708: Hazardous Waste Engineering
- POLS 3356: U.S. Environmental Policy & Politics
- CE 4800: Senior Project

Upper Division Elective Courses (12 Credit Hours)

Select four courses:

- BIOL 3370: Ecology
- CHEM 3361: Modern Organic Chemistry I
- CHEM 4300: Instrumental Analytical Chemistry
- CE 4353: Air Pollution Control
- CE 4363: Environmental Engineering Chemistry
- CE 4704: Engineering Hydraulic Analysis and Design

Program Total (129 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement

Graduation Credit Hour Total (129 Credit Hours)

Environmental Engineering Minor

The minor in Environmental Engineering is designed to provide students in engineering, science, and other majors with a comprehensive study of environmental issues and the skills necessary to solve problems associated with environmental pollution. Today, environmental concerns strongly influence many aspects of engineering practice. The curriculum is designed to provide students with

- a) a foundation to pursue a career in environmental engineering and
- b) an understanding of the environmental consequences of their designs.

Required Basic and Engineering Science and Mathematics Prerequisite Courses (23 Credit Hours)

Most of the engineering disciplines require these courses. Non-engineering students may have to take these courses before they can take the Environmental Engineering Breadth and Depth Courses.

- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory I
- ENGR 2214: Engineering Mechanics - Statics
- ENGR 3343: Fluid Mechanics
- ENGR 3345: Fluid Mechanics Laboratory
- MATH 1190: Calculus I

Required Environmental Engineering Breadth Courses (8 Credit Hours)

- CE 3702: Introduction to Environmental Engineering
- CE 3703: Environmental Engineering Design
- CE 3704: Introduction to Environmental Engineering Laboratory
- CE 4371: Environmental Engineering Laboratory

Required Environmental Engineering Depth Courses (9 Credit Hours)

Select any three (3) courses from the following:

- CE 4343: Solid Waste Engineering
- CE 4353: Air Pollution Control
- CE 4363: Environmental Engineering Chemistry
- CE 4373: Environmental Engineering Microbiology
- CE 4708: Hazardous Waste Engineering

Required Program Total (17 Credit Hours)

Industrial & Systems Engineering B.S.

The Industrial & Systems Engineering program is a combination of Industrial Engineering & Systems Engineering. Industrial engineering is concerned with design, improvement and implementation of integrated processes of people, processes, information, materials, management and equipment. IE's draw upon specialized knowledge and skill in the mathematical, physical, and social sciences combined with the principles and methods of engineering analysis and design, to specify, predict, and evaluate processes and systems.

Systems engineering is an interdisciplinary and structured approach to designing and deploying successful systems to blends engineering, systems thinking, and management topics. Systems engineering deals with work-processes, optimization methods, and risk management tools while ensures that all likely aspects of a project or system are considered, and integrated into a whole.

Students in this major have the opportunity to concentrate in either Industrial or Systems. Due to the relevance of the two disciplines, 75% of the curriculum is shared providing graduates with expanded job market opportunities while the remaining 25% is directed towards the specifics of each area of engineering.

Upon graduation, students will be able to demonstrate:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;

- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- a broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

The Bachelor of Science in Industrial & Systems Engineering is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Requirements Specific for this Major:

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory

Lower Division Major Requirements (Area F) (18 Credit Hours)

- CSE 131 I: C++ Programming for Engineers
- ENGR 1100: Survey of Engineering Applications from Mathematics
- ISYE 1000: Introduction to Industrial & Systems Engineering
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory

or

- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory

or

- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II

- One hour from Area A
- Two hours from Area D

Industrial & Systems Engineering Major Requirements (39 Credit Hours)

- TCOM 2010: Technical Writing
- MATH 3260: Linear Algebra I
- ENGR 2214: Engineering Mechanics - Statics
- ENGR 3325: Engineering Economic Analysis
- EDG 1210: Survey of Engineering Graphics
- ENGR 3250: Project Management for Engineers
- ISYE 3150: Design & Improvement of Quality Processes
- ENGR 4402: Engineering Ethics
- ISYE 2600: Applications of Probability
- ISYE 3400: Deterministic Operations Research
- ISYE 3600: Statistics with Applications
- ISYE 4200: Engineering Optimization: Stochastic Decision Models
- ISYE 4500: System Modeling & Simulation
- ISYE 4900: Senior Design Project

Concentrations (28 Credit Hours)

Select one of the following concentrations and appropriate Technical Electives:

Industrial Engineering Concentration

- ACCT 2100: Introduction to Financial Accounting
- ISYE 3125: Statistical Quality Control
- ISYE 3350: Logistics & Supply Chain Systems
- ISYE 3450: Human Factors Engineering
- ISYE 4250: Manufacturing & Service Systems
- ISYE 4425: Facilities Planning & Material Handling

Select 10 Credit Hours from the list of Technical Electives

Systems Engineering Concentration

- EE 2301: Circuit Analysis I
- ENGR 3122: Engineering Mechanics - Dynamics
or
- ME 3410: Thermodynamics
- ISYE 3100: Systems Reliability & Maintainability
- ISYE 3120: Contemporary Technological Systems: Design, Analysis, & Architecture
- ISYE 3200: Human Machine Systems

Select 12 Credit hours from the list of Technical Electives

Technical Electives

- ISYE 3398: Internship
- ISYE 4400: Directed Study
- ISYE 4490: Special Topics
- Any 3xxx or 4xxx level courses in ENGR, CE, EE, ME, MTRE, ISYE, SWE, STAT, MGT, IS or ISA

Program Total (127 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (127 Credit Hours)

Industrial Engineering Technology - Quality Principles Certificate

The primary objective of the Certificate in Quality Principles is to provide training and education to members of the Industrial Engineering field in quality system principles, methodology, elements and standards. Students can complete the requirements in 3-4 semesters. These courses may also be applied toward completing a B.S. degree in Industrial Engineering Technology upon acceptance to KSU.

Student outcomes

1. Demonstrate a knowledge of statistics for quality control (IET 3339, IET 3403)
2. Effectively demonstrate quality concepts and ideas (IET 3356)
3. Work successfully in team environments (IET 3410)
4. Identify and manage quality projects (IET 4135, IET 4151)

Requirements

- IET 2227: Introduction to Statistics
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3403: Advanced Statistics with Application
- IET 3410: Principles of Team Dynamics
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers

Program Total (21 Credit Hours)

Industrial Engineering Technology - Quality Principles Minor

To be eligible for a Minor in Industrial Engineering Technology (IET) Quality Principles, the student must complete the following courses. This minor is offered by the Department of Systems & Industrial Engineering.

Student outcomes (depending on choices of classes taken)

1. To prepare graduates with the fundamentals of quality principles
2. To apply statistics toward quality cases (IET2227)
3. To apply control systems to measure quality (IET 3339)
4. To design quality systems with quality concepts learned (IET 3356)
5. To understand the application of six sigma principles with lean manufacturing (IET 3407)
6. Be capable of managing a quality systems project (IET 4135)
7. Be capable of applying operations management & research (IET 4151, IET 4405)
8. To prepare students with the foundation for lifelong learning

Requirements

- IET 2227: Introduction to Statistics
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3407: Six Sigma and Lean Manufacturing

Choose one from the following:

- IET 3403: Advanced Statistics with Application
- IET 3410: Principles of Team Dynamics
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers

Program Total (15 Credit Hours)

Notes:

1. Students who successfully complete the Quality Principles Minor will also receive a Six Sigma Green Belt Certification.
2. A minimum GPA of 2.0 in the courses used for the minor is required.

Industrial Engineering Technology B.S.

- Who manages the flow of people at theme parks or airports?
- Who decides what kind of training employees need before they operate new equipment?
- Who produces the layout for the new facility?
- Who determines where to add people or machinery for maximum impact?

If you like to be at the center of the action, designing creative solutions that make business and industry work safer, faster, and leaner, making organizations more efficient, productive, and cost-effective then the career for you is Industrial Engineering Technology.

This Bachelor of Science degree offers the graduate a challenging career in business, industry, or government. Graduates deal primarily with the process management of money, materials, and labor in a business and industrial environment.

Career opportunities involve problem solving in the fields of:

- Quality Control
- Production/Materials Management
- Information Systems
- Process Improvement
- Logistics and Supply Chain Management
- Systems Simulation
- Salary and Compensation Plans
- Workplace Design
- Personnel Management
- Occupational Safety, Health and Ethics
- Project Management
- Economic Analysis/Cost Control

The Bachelor of Science in Industrial Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET: <http://www.abet.org>.

Student Outcomes

- An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;
- An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;
- An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;
- An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;
- An ability to function effectively as a member or leader on a technical team;
- An ability to identify, analyze, and solve broadly-defined engineering technology problems;
- An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- An understanding of the need for and an ability to engage in self-directed continuing professional development;
- An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;
- A knowledge of the impact of engineering technology solutions in a societal and global

context; and

- A commitment to quality, timeliness, and continuous improvement.
- An ability to accomplish the integration of systems using appropriate analytical, computational, and application practices and procedures.
- An ability to apply knowledge of probability, statistics, engineering economic analysis and cost control, and other technical sciences and specialties necessary in the field of industrial engineering technology.

General Education (42 Credit Hours)

See listing of requirements

Required General Education Courses Specific to the Major

Students must complete 8 Credit Hours for Area D2 and may choose from the following:

- PHYS 1111 and PHYS 1111L
- PHYS 1112 and PHYS 1112L
- PHYS 2211 and PHYS 2211L
- PHYS 2212 and PHYS 2212L
- CHEM 1211 and CHEM 1211L
- CHEM 1212 and CHEM 1212L
- BIOL 1107 and BIOL 1107L
- BIOL 1108 and BIOL 1108L

- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

- MATH 1190: Calculus I

Lower Division Major Requirements (Area F) (18 Credit Hours)

- TCOM 2010: Technical Writing
- IT 1113: Programming Principles
- EDG 1210: Survey of Engineering Graphics
- IET 2305: The Role of Industrial Engineering Technology in Industrial Systems

- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I
or
- PHYS 1112: Introductory Physics II
- PHYS 1112L: Introductory Physics Laboratory II
or
- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory I
or

- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
or
- CHEM 1152: Survey of Chemistry II
or
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory

- CHEM 1212: General Chemistry II
- CHEM 1212L: General Chemistry II Laboratory
or
- BIOL 1107: Biological Principles I
- BIOL 1107L: Biological Principles I Laboratory
or
- BIOL 1108: Biological Principles II
- BIOL 1108L: Biological Principles II Laboratory
or
- SCI 1101: Science, Society, and the Environment I
- Two Credit Hours from Area D

Required Courses Specific to the Major (52 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
or
- IET 2432: Introduction to Managerial Costing (not equivalent to ACCT 2100)

- IET 1000: Orientation
- IET 2227: Introduction to Statistics
- IET 2449: Logistics and Supply Chain Management
- IET 3322: Work Measurement and Ergonomics
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3403: Advanced Statistics with Application
- IET 3424: Engineering Economy
- IET 3433: Product and Process Costing
- IET 4115: Human Resources Management for Engineers
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4422: Facilities Design, Plant Layout, and Materials Handling
- IET 4451: Systems Simulation
- IET 4475: Senior Project
- IET 4810: Ethics and Safety

Upper-Level Electives (9 Credit Hours)

Choose from the list below:

- IET 3320: Advanced Logistics
- IET 3398: IET Internship
- IET 3407: Six Sigma and Lean Manufacturing
- IET 3410: Principles of Team Dynamics
- IET 3511: Sustainability Engineering
- IET 3620: Warehousing Systems

Free Electives (6 Credit Hours)

Any courses in the university curriculum.

Program Total (127 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (127 Credit Hours)

Concentrations

Students may choose a concentration by selecting a combination of specific required and elective courses.

Concentration in Quality Principles (21 Credit Hours)

The primary objective of the Concentration in Quality Principles is to provide training and education to students interested in quality system principles, methodology, elements and standards.

Students who successfully complete the Concentration with a grade of "C" or better in each course will be awarded a Green Belt Certificate.

Required Courses:

- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3403: Advanced Statistics with Application
- IET 3407: Six Sigma and Lean Manufacturing
- IET 3410: Principles of Team Dynamics
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers

Concentration in Logistics (21 Credit Hours)

The primary objective of the Concentration in Logistics is to provide training and education to students interested in entering the Supply Chain industry.

Students who successfully complete the Concentration with a grade of "C" or better in each course will be awarded a Green Belt Certificate.

Required Courses:

- IET 2227: Introduction to Statistics
- IET 2449: Logistics and Supply Chain Management
- IET 3320: Advanced Logistics

- IET 3511: Sustainability Engineering
or
- IET 3620: Warehousing Systems

- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4115: Human Resources Management for Engineers
- IET 4151: Operations Management for Engineers

Industrial Engineering Technology Logistics Certificate

The primary objective of the Certificate in Logistics is to provide training and education to members of the Supply Chain industry that need to improve skills and knowledge in the latest technology available in their field. Students can complete the requirements in 4-6 semesters. The courses may also be applied toward completing a B.S. degree in Industrial Engineering Technology. The program will be offered on campus and through distance learning.

Student outcomes

1. Demonstrate a conceptual knowledge of logistics (IET 3320)
2. Communicate effectively in written and presentation skills (IET 3320)
3. Utilize support and research systems for logistics (IET 4115, IET 4151, IET 4405)
4. Demonstrate an ability to plan, execute and critique sound logistics concepts and ideas (IET 4115, IET 3620)

Requirements

- IET 2227: Introduction to Statistics
- IET 2449: Logistics and Supply Chain Management
- IET 3320: Advanced Logistics
- IET 3620: Warehousing Systems
- IET 4115: Human Resources Management for Engineers
- IET 4151: Operations Management for Engineers
- IET 4405: Operations Research - Concepts, Models and Methods

Program Total (21 Credit Hours)

Industrial Engineering Technology Logistics Minor

To be eligible for a Minor in Industrial Engineering Technology (IET) Logistics, the student must have a major (not IET) and complete the following courses. This minor is offered by the Department of Systems & Industrial Engineering.

Student outcomes (depending on choices of classes taken)

1. To prepare graduates with the fundamentals of logistics and supply chain management
2. To apply statistics toward logistics cases (IET2227)
3. To become familiar with the purpose and operations of warehousing systems (IET 3620)
4. To apply advanced statistics toward logistics cases (IET 3320)
5. To apply sustainability toward logistics scenarios (IET 3511)
6. Be capable of managing a logistics project (IET 4135)
7. Be capable of applying operations management & research (IET 4151, IET 4405)
8. To prepare students with the foundation for lifelong learning

Requirements

- IET 2227: Introduction to Statistics
- IET 2449: Logistics and Supply Chain Management
- IET 3320: Advanced Logistics
- IET 3620: Warehousing Systems

Choose any One Course from the Following:

- IET 3410: Principles of Team Dynamics
- IET 3403: Advanced Statistics with Application
- IET 3511: Sustainability Engineering
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4115: Human Resources Management for Engineers
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers

Program Total (15 Credit Hours)

Note:

A minimum GPA of 2.0 in the courses used for the minor is required.

Industrial Engineering Technology Minor

To be eligible for a Minor in Industrial Engineering Technology (IET), the student must have a major and complete 10 credit hours of required courses and 6-8 credit hours from the list below. This minor is offered by the Department of Systems & Industrial Engineering.

Student outcomes (depending on choices of classes taken)

1. To prepare graduates with some fundamentals of industrial engineering technology (IET2305)
2. To apply the knowledge of statistics in engineering technology problems (IET2227)

3. To apply control systems to measure quality (IET 3339)
4. To understand the application of quality principles with lean manufacturing (IET 3407)
5. Be capable of applying operations research (IET 4405)
6. To design manufacturing facilities with material handling equipment (IET 4422)
7. To apply advanced statistics when necessary (IET 3403)
8. To apply sustainability in industrial situations (IET 3511)
9. To prepare students with the foundation for lifelong learning

Complete the following three courses:

- IET 2227: Introduction to Statistics
- IET 2305: The Role of Industrial Engineering Technology in Industrial Systems
- IET 3356: Quality Concepts and Systems Design

Choose Two Courses from the Following:

- IET 2449: Logistics and Supply Chain Management
- IET 3322: Work Measurement and Ergonomics
- IET 3339: Statistical Quality Control
- IET 3403: Advanced Statistics with Application
- IET 3407: Six Sigma and Lean Manufacturing
- IET 3410: Principles of Team Dynamics
- IET 3424: Engineering Economy
- IET 3511: Sustainability Engineering
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4422: Facilities Design, Plant Layout, and Materials Handling

Program Total (16-18 Credit Hours)

Note:

An overall 2.0 GPA is required in the courses for the IET Minor (excluding the international studies minor courses).

Land Surveying Certificate - Stand-Alone and Embedded

The Land Surveying Certificate program is designed to prepare surveyors with the basic education necessary to take the Fundamentals of Land Surveying Exam and exceeds the State of Georgia academic registration requirements to become a Registered Land Surveyor. There are seven courses required in the certificate program.

Requirements

- SURV 2221: Surveying I
- SURV 2221L: Surveying I Lab
- SURV 3222: Surveying II

- SURV 3500: Applied Hydrology and Hydraulics
or
- CE 4703: Engineering Hydrology
- SURV 4465: Legal Aspects of Land Surveying
- SURV 4470: Land Development Design
- SURV 4475: Land Surveying Practice

Program Total (20 or 21 Credit Hours)

Manufacturing Engineering Technology Minor

Requirements

- MET 1311: Manufacturing Processes
- MET 2322: Metrology and CNC Machining

Select three additional courses from the following:

- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- IET 3407: Six Sigma and Lean Manufacturing
- MET 3331: Tool Design
- MET 3332: Rapid Design and Manufacture
- MET 4342: Numerical Control of Machines
- IET 4135: IET Project Management

Program Total (15 Credit Hours)

Note:

Not available to MET students with a concentration in Manufacturing.

Manufacturing Operations B.A.S.

The Bachelor of Applied Science in Manufacturing Operations has been specifically designed for students who have completed an Associate of Applied Science or Associate of Applied Technology Degree from a Technical College System of Georgia institution.

The goal of the partnership between KSU and the TCSG schools to provide the opportunity for degreed graduates from the technical schools of Georgia and other accredited Technical Schools across the country to complete a Bachelor's degree in approximately two years as a full time student. Students must graduate from a TCSG school with an AAS or AAT degree. Courses from the degree program will transfer as a block or as individual credit as outlined for each TCSG program.

What is hybrid and online? All required major courses to complete the BAS in Manufacturing Operations program are offered totally online by KSU faculty. All general education requirements are also offered on-line through the university system called E-core.

The BASMO program prepares students in the areas of manufacturing, operations, logistics and supply chain through an industry-driven curriculum encompassing manufacturing processes, quality principles, engineering economy, work measurement and facilities layout.

General Education (42 Credit Hours)

See listing of requirements

Required General Education Courses Specific to the Major:

- Area D-2: 1 non-lab science is allowed
- STAT 1107: Introduction to Statistics

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Technical Block - Up to 18 Credit Hours

Upper Division Major Requirements (51 Credit Hours)

- IET 2305: The Role of Industrial Engineering Technology in Industrial Systems
- IET 3322: Work Measurement and Ergonomics
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3424: Engineering Economy
- IET 4115: Human Resources Management for Engineers
- IET 4135: IET Project Management
- IET 4151: Operations Management for Engineers
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4422: Facilities Design, Plant Layout, and Materials Handling
- IET 4810: Ethics and Safety
- Technical Block - 17Credit Hours from Student's A.A.S. Degree

Upper Level Electives (9 Credit Hours)

Choose any three courses:

- IET 3403: Advanced Statistics with Application
- IET 3407: Six Sigma and Lean Manufacturing
- IET 3410: Principles of Team Dynamics
- IET 3511: Sustainability Engineering
- IET 3620: Warehousing Systems
- IET 4451: Systems Simulation
- MGT 3100: Management and Behavioral Sciences

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (120 Credit Hours)

Mechanical Engineering B.S.

Mechanical engineering is one of the largest disciplines of engineering because it is one of the broadest. It focuses on the application of the principles of mechanics and materials to design machines and devices. In this energy conscious world, a thorough understanding of energy and its uses is essential to the success of a mechanical engineer.

Mechanical engineers help to design energy efficient devices such as wind-turbines as well as artificial knee joints that help society.

Graduates have the qualifications to enter graduate school, become a licensed professional engineer in any state after sufficient work experience, or directly enter careers in areas such as, but not limited to, manufacturing, aerospace industry, power generation and distribution, automotive design, machine design, alternative energy, robotics, and automation. Typical job titles for graduates may include design engineer, project engineer, process engineer, test engineer, development engineer, program manager, consulting engineer, and field engineer.

Mechanical Engineering requires rigorous training in basic science and engineering principles along with the development of skills in the areas of computer-aided design, instrumentation, and planning and management of design projects. Graduates in the area of Mechanical Engineering will be required to master technical elements and to demonstrate particular competence in the areas of communication, fiscal management, and project control. The broad-based background is tailored to develop professionals who will be able to move between the technical and managerial aspects of mechanical engineering projects and to serve in key leadership positions within the engineering profession. As with all engineering degrees, a mechanical engineer becomes very good at solving difficult problems which makes it a good degree for non-engineering careers as well.

The Bachelor of Science in Mechanical Engineering program was approved by the Board of Regents in August 2009. The Bachelor of Science in Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212 L: Principles of Physics Laboratory II

- COM 1100: Human Communication (Recommended)
- STS 1101: Science, Technology, and Society (Recommended)

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ME 100I: Introduction to Mechanical Engineering
- ME 131I: MATLAB for Engineers with Applications
- CHEM 121I: General Chemistry I
- CHEM 121IL: General Chemistry I Laboratory
- MATH 2332: Probability and Data Analysis
- EDG 121I: Engineering Graphics I
- One Credit Hour from Area A
- Two Credit Hours from Area D

Math or Science Elective (3 Credit Hours)

Select one of the following courses:

- CHEM 1212: General Chemistry II
- BIOL 1107: Biological Principles I
- BIOL 222I: Human Anatomy & Physiology I
- MATH 2335: Numerical Methods for Engineers
- MATH 3260: Linear Algebra I
- MATH 326I: Numerical Methods I

Some MATH OR PHYS classes may be approved for math or science electives by the department chair.

Upper Division Major Requirements (61 Credit Hours)

- MATH 2306: Ordinary Differential Equations
- TCOM 2010: Technical Writing
- ENGR 2214: Engineering Mechanics - Statics
- EE 230I: Circuit Analysis I
- ME 310I: Materials Science and Engineering
- ENGR 3122: Engineering Mechanics - Dynamics
- ENGR 3131: Strength of Materials
- ENGR 3132: Strength of Materials Lab
- ENGR 3343: Fluid Mechanics
- ENGR 3345: Fluid Mechanics Laboratory
- ME 4250: Computer Aided Engineering
- ENGR 4402: Engineering Ethics
- ME 4403: Heat Transfer and Thermodynamics Lab
- ME 3410: Thermodynamics
- ME 320I: Product Realization
- ME 3440: Heat Transfer
- ME 350I: Dynamic Systems & Control Theory

- ENGR 3125: Machine Dynamics & Vibrations
- ME 4141: Machine Design I
- ME 4201: Senior Design I
- ME 4202: Senior Design II
- ME 4501: Vibrations & Controls Lab
- MATH 2203: Calculus III
- ENGR 3325: Engineering Economic Analysis

Upper Division Technical Electives (6 Credit Hours)

Select two courses:

- ME 3133: Composite Mechanics
- ME 3701: Manufacturing Engineering
- ME 3398: Internship
- ME 4400: Directed Study
- ME 4490: Special Topics in Mechanical Engineering
- ENGR 3501: Fundamentals of Nuclear Engineering
- ENGR 3502: Radiation Detection & Measurement
- ENGR 4501: Nuclear Power Generation
- ENGR 4502: Radiation Protection & Health Physics
- ENGR 4503: Nuclear Fuel Cycle
- ISYE 3801: Aerodynamics
- ISYE 3802: Aircraft Design & Performance
- ISYE 3803: Fundamentals of Avionics
- ISYE 4801: Aircraft Propulsion
- ISYE 4802: Helicopter Theory
- ISYE 4803: Aeronautics Senior Design Project
- MTRE 3710: Mechatronics Engineering Fundamentals

Some ENGR, EE, MTRE, or ISYE courses may be approved for technical electives by the department chair.

Program Total (130 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (130 Credit Hours)

Mechanical Engineering Technology B.S.

Graduates are capable of applying engineering principles to today's industrial problems. In the four-year Bachelor's degree programs, emphasis is placed on necessary theoretical concepts as

well as practical laboratory experience in manufacturing processes and techniques, instrumentation and controls, and equipment and machinery design, and performance testing and evaluation. Particular emphasis is placed on studies meeting the needs of those industries which are prevalent in the Southeast.

The Bachelor of Science in Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Specific General Education Requirements for this Major:

- COM 1100: Human Communication (Recommended but not required)
- STS 1101: Science, Technology, and Society (Recommended)

- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

- PHYS 2211: Principles of Physics I
- PHYS 2211L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- MATH 1190: Calculus I

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MATH 2202: Calculus II
- MATH 2306: Ordinary Differential Equations
- TCOM 2010: Technical Writing
- CHEM 1211: General Chemistry I
- CHEM 1211L: General Chemistry I Laboratory
- MET 1321: Machining and Welding
- Two Credits from Area D

Required Courses (50 Credit Hours)

- ENGT 2124: Statics with Applications
or
- ENGR 2214: Engineering Mechanics - Statics

- EDG 1211: Engineering Graphics I
- EDG 1212: Engineering Graphics II

- MET 3126: Engineering Dynamics with Applications

- or
- ENGR 3122: Engineering Mechanics - Dynamics

- ENGR 3131: Strength of Materials and
- ENGR 3132: Strength of Materials Lab
- or
- ENGT 3124: Strength of Materials with Applications and
- ENGT 3124L: Strength of Materials Lab

- MET 3101: Fluid Mechanics Principles & Applications
- MET 1311: Manufacturing Processes
- MET 2322: Metrology and CNC Machining
- MET 3132: Engineering Materials
- MET 3132L: Engineering Materials Lab
- MET 3401: Thermodynamics I
- MET 4141: Machine Design I
- MET 4421: Instruments and Controls
- MET 2501: Engineering Computation using Matlab
- ECET 3000: Electrical Principles
- MET 1000: Mechanical Engineering Technology Orientation

Select One of the Following Four Courses: (3 Credit Hours)

- MET 3123: Dynamics of Machines
- MET 3331: Tool Design
- MET 3402: Thermodynamics II
- MET 4112: Computer Aided Engineering & Analysis

Choose One of the Concentrations Below (12 Credit Hours)

General Concentration

Choose 12 Credit Hours of upper-level electives:

- MET 3XXX
- MET 4XXX
- EDG 3XXX
- EDG 4XXX (Maximum two EDG courses allowed for General Concentration)

Energy-HVAC Concentration

- MET 3402: Thermodynamics II

Choose three courses from:

- MET 4341: Automation Systems and Controls
- MET 4401: Heat Transfer
- MET 4411: Refrigeration

- MET 4412: Air Conditioning
- MET 4431: Plant and Power Applications
- Plus a 3 Credit Upper Level MET or EDG Elective

Machine Design Concentration

- MET 3123: Dynamics of Machines

Choose three courses from:

- MET 3332: Rapid Design and Manufacture
- MET 4124: Vibrations and Advanced Dynamics
- MET 4133: Advanced Engineering Materials
- MET 4142: Mechanical Systems Design
- MET 4341: Automation Systems and Controls
- Plus a 3 Credit Upper Level MET or EDG Elective

Manufacturing Concentration

- MET 3331: Tool Design

Choose three courses from:

- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- MET 3332: Rapid Design and Manufacture
- MET 4133: Advanced Engineering Materials
- MET 4341: Automation Systems and Controls
- MET 4342: Numerical Control of Machines
- MET 4142: Mechanical Systems Design
- IET 4135: IET Project Management
- Plus a 3 Credit Upper Level MET or EDG Elective

Engineering Graphics Design Concentration

- MET 4112: Computer Aided Engineering & Analysis

Choose three courses from:

- EDG 3112: Advanced Engineering Graphics
- EDG 4111: Surface Modeling
- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- EDG 4222: CAD Customization and Standards
- MET 3332: Rapid Design and Manufacture
- Plus a 3 Credit Upper Level MET or EDG Elective

Free Electives (3 Credit Hours)

Any course from the university curriculum.

Program Total (128 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement.

Note

1. The Free Elective may not be MATH 1111.
2. PHYS 1111/PHYS 1111L and PHYS 1112/PHYS 1112L may be substituted for PHYS2211/PHYS 2211L and PHYS 2212/PHYS 2212L.

Graduation Credit Hour Total (128 Credit Hours)

Mechatronics Engineering B.S.

IEEE/ASME Transactions on Mechatronics was the first refereed journal published in the United States focused on Mechatronics. In the first issue (March 1996), mechatronics was defined as: "The synergistic integration of mechanical engineering with electronics and intelligent computer control in the design and manufacturing of industrial products and processes." Ten specific topics were identified under the general category of mechatronics:

- Modeling and Design
- Motion Control
- System Integration
- Vibration and Noise Control
- Actuators and Sensors
- Micro Devices & Optoelectronic Systems
- Intelligent Control
- Automotive Systems
- Robotics
- Manufacturing

Mechatronic systems can be a complete product or a sub-component of a product. Examples of mechatronic systems include aircraft flight control and navigation systems; automotive electronic fuel injection and anti-lock brake systems; automated manufacturing systems including robots, numerical control machining centers, packaging systems and plastic injection-molding systems; artificial organs; health monitoring and surgical systems; copy machines; and many more. Some common element of all these systems is the integration of analog and digital circuits, microprocessors and computers, mechanical devices, sensors, actuators, and controls.

Mechatronics Engineering graduates can select from a wide spectrum of industries for career choices and can also contribute in a variety of roles including design engineer, software engineer, project planner, product designer, and project manager. Mechatronics Engineering program graduates are able to select from jobs as Mechatronics specialists in a variety of industries. Opportunities are also available to graduates in smaller companies that need

generalists who can perform both mechanical and electrical engineering functions.

The Bachelor of Science in Mechatronics Engineering program is accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.

General Education (42 Credit Hours)

See listing of requirements.

Required Courses Specific to the Major:

- MATH 1190: Calculus I
- MATH 2202: Calculus II
- PHYS 221 I: Principles of Physics I
- PHYS 221 I L: Principles of Physics Laboratory I
- PHYS 2212: Principles of Physics II
- PHYS 2212L: Principles of Physics Laboratory II
- COM 1100: Human Communication (Recommended)

Lower Division Major Requirements (Area F) (18 Credit Hours)

- MATH 2203: Calculus III
- CHEM 121 I: General Chemistry I
- CHEM 121 I L: General Chemistry I Laboratory
- CSE 131 I: C++ Programming for Engineers
- EDG 121 I: Engineering Graphics I
- One Credit Hour from Area A
- Two Credit Hours From Area D

Mechatronics Engineering Required Courses (62 Credit Hours)

- EE 2301: Circuit Analysis I
- EE 3401: Engineering Electronics
- EE 2501: Digital Logic Design
- ENGR 2214: Engineering Mechanics - Statics
- ENGR 3122: Engineering Mechanics - Dynamics
- ENGR 3131: Strength of Materials
- ENGR 3132: Strength of Materials Lab
- ENGR 3343: Fluid Mechanics
- MATH 2306: Ordinary Differential Equations
- MATH 3260: Linear Algebra I
- MTRE 1000: Introduction to Mechatronics Engineering
- MTRE 2610: Intermediate Programming for Mechatronics
- MTRE 3710: Mechatronics Engineering Fundamentals
- MTRE 4001: Modeling and Feedback Control of Dynamic Systems
- MTRE 4002L: Feedback Control Laboratory

- MTRE 4010: Advanced Controls
- MTRE 4100: Instruments and Controls
- MTRE 4200: Robotics Analysis and Synthesis
- MTRE 4800: Mechatronics System Design
- ENGR 3325: Engineering Economic Analysis

Electives (7 Credit Hours)

- MATH Elective (3Credit Hours)- Must be MATH 2332 or higher
- Technical Elective (4 Credit Hours) - CS 3xxx/4xxx, EE 3xxx/4xxx (excluding EE 4201), ENGR 3xxx/4xxx, ME 3xxx/4xxx (excluding ME 3501 and ME 4501), MTRE 3xxx/4xxx, SYE 3501, SYE 3502, SYE 4501

Program Total (129 Credit Hours)

University-Wide Degree Requirements

See listing of requirements. Note: Program is exempt from the WELL 1000 course requirement.

Graduation Credit Hour Total (128 Credit Hours)

Note:

The Mechatronics Engineering degree requires a grade of "C" or better in all major required courses applied to degree requirements. All math and science courses require a grade of "C" or better.

Mechatronics Engineering Minor

This program provides an opportunity for students outside the Department of Mechatronics Engineering to learn robotics and mechatronics courses which add value to their education by obtaining skills that are directly and immediately relevant to employers.

Students need to complete at least 15 credit hours in this minor program. In particular, MTRE 3710, MTRE 4001, MTRE 4002, and MTRE 4200 are the required courses. Students also need to select one of MTRE 4100, MTRE 4010 or MTRE 2610

Required Courses (12 Credit Hours)

- MTRE 3710: Mechatronics Engineering Fundamentals
- MTRE 4001: Modeling and Feedback Control of Dynamic Systems
- MTRE 4002L: Feedback Control Laboratory
- MTRE 4200: Robotics Analysis and Synthesis

** EE 4201 can be substituted for MTRE 4001 & MTRE 4002. ME 3501 & ME 4501 can also be substituted for MTRE 4001 & MTRE 4002.*

Elective Courses (3-4 Credit Hours)

Select one of the following courses:

- MTRE 2610: Intermediate Programming for Mechatronics
- MTRE 4010: Advanced Controls
- MTRE 4100: Instruments and Controls

Program Total: (15-16 Credit Hours)

Nuclear Engineering Minor

Requirements

- ENGR 3501: Fundamentals of Nuclear Engineering
- ENGR 3502: Radiation Detection & Measurement
- ENGR 4501: Nuclear Power Generation
- ENGR 4502: Radiation Protection & Health Physics
- ENGR 4503: Nuclear Fuel Cycle

Program Total (15 Credit Hours)

Production Design Certificate

The primary objective of the Certificate in Production Design is to provide training and education to members of the Industrial Engineering field in the measurement and analysis of work and in the design or improvement of facilities. Students can complete the requirements in 3-4 semesters. These courses may also be applied toward completing a B.S. degree in Industrial Engineering Technology upon acceptance into KSU.

Student outcomes

1. Create efficient facilities layout designs (IET 4422, IET 4151)
2. Demonstrate a knowledge of work measurement standards (IET 3322)
3. Design ergonomically efficient working environments (IET 3322)
4. Understand and exercise sound operations management & research (IET 4151, IET 4405)

Requirements

- ACCT 2100: Introduction to Financial Accounting
- IET 2227: Introduction to Statistics
- IET 3322: Work Measurement and Ergonomics
- IET 4151: Operations Management for Engineers
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4422: Facilities Design, Plant Layout, and Materials Handling

Program Total (20 Credit Hours)

Renewable Energy Engineering Technology Minor

An overall GPA of 2.0 is required in the courses for the Renewable Energy Engineering Technology (REET) Minor.

Requirements

- REET 3550: Introduction to Alternate Energy

Choose four courses from the following:

- REET 2020: Energy Conversion
- REET 3030: Energy Storage Systems
- REET 4100: Solar Photovoltaics
- REET 4110: Solar Thermal Systems
- REET 4200: Wind Power Generation
- REET 4210: Oceanic and Hydropower Generation
- REET 4500: Environmental Aspects of Power Generation
- REET 4510: Sustainable Transportation Systems

Program Total (16-17 Credit Hours)

Supply Chain Logistics, B.A.S.

The Bachelor of Applied Science in Supply Chain Logistics has been specifically designed for students who have completed an Associate of Applied Science or Associate of Applied Technology Degree from a Technical College System of Georgia institution.

The goal of the partnership between KSU and the TCSG schools to provide the opportunity for degreed graduates from the technical schools of Georgia and other accredited Technical Schools across the country to complete a Bachelor's degree in approximately two years as a full time student. Students must graduate from a TCSG school with an AAS or AAT degree.

Courses from the degree program will transfer as a block or as individual credit as outlined for each TCSG program.

All required major courses to complete the BAS in Supply Chain Logistics program are offered totally online by KSU faculty. All general education requirements are also offered on-line through the university system called E-core.

The BASSCL program prepares students in the areas of manufacturing, operations, logistics and supply chain through an industry-driven curriculum encompassing manufacturing processes, quality principles, engineering economy, work measurement and facilities layout.

General Education (42 Credit Hours)

See listing of requirements.

Required General Education Courses Specific to the Major

- Area D-2: 1 non-lab science allowed
- STAT 1107: Introduction to Statistics

Lower Division Major Requirements (Area F) (18 Credit Hours)

- Technical Block - Up to 18 Semester Hours

Upper Division Major Requirements (51 Credit Hours)

- IET 2449: Logistics and Supply Chain Management
- IET 3320: Advanced Logistics
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3424: Engineering Economy
- IET 3511: Sustainability Engineering
- IET 3620: Warehousing Systems
- IET 4115: Human Resources Management for Engineers
- IET 4135: IET Project Management
- MKTG 3100: Principles of Marketing
- MGT 3100: Management and Behavioral Sciences
- Major Technical Block- Up to 18 Credit Hours from AAS degree.

Upper-Level Electives (9 Credit Hours)

Choose any three courses from the following:

- IET 3403: Advanced Statistics with Application
- IET 3407: Six Sigma and Lean Manufacturing
- IET 3410: Principles of Team Dynamics
- IET 4151: Operations Management for Engineers
- IET 4405: Operations Research - Concepts, Models and Methods
- IET 4451: Systems Simulation

Program Total (120 Credit Hours)

University-Wide Degree Requirements

See listing of requirements.

Note: Program is exempt from the WELL 1000 course requirement

Graduation Credit Hour Total (120 Credit Hours)

Surveying and Mapping B.S.

The Surveying and Mapping Program is accredited by the Applied Science Accreditation

Commission of ABET (<http://www.abet.org>) and offered through the Civil and Construction Engineering Department.

The Surveying and Mapping Program is the only ABET accredited surveying program in the State of Georgia. Students are taught the principles and techniques of field measurements and adjustments, boundary, topographic, geodetic, route and construction surveys.

Students apply classroom knowledge in laboratory exercises with modern surveying equipment including theodolites, electronic distance meters, electronic total stations, Global Positioning System (GPS) satellite receivers, and optical alignment devices. Mapping topics include Geographic Information Systems (GIS), photogrammetry and remote sensing.

In laboratories, students develop maps from field measurements, design and layout construction projects, plan subdivision developments and establish horizontal and vertical control using satellite geodesy. Computers are used extensively in reducing data, planning field layouts, plotting boundaries, drawing (CAD) plats and map production.

Students also study topics from the Civil Engineering Technology program including elementary structures, fluid mechanics, hydrology and the design and construction of highways. Courses in mathematics, business principles and core requirements provide the student added depth.

The program exceeds the State of Georgia academic registration requirements to become a Registered Land Surveyor.

General Education (42 Credit Hours)

See listing of requirements

Required General Education Courses Specific to the Major

- MATH 1112: College Trigonometry
or
- MATH 1113: Precalculus

- MATH 1190: Calculus I
- COM 1100: Human Communication
- PHYS 1111: Introductory Physics I
- PHYS 1111L: Introductory Physics Laboratory I
- PHYS 1112: Introductory Physics II
- PHYS 1112L: Introductory Physics Laboratory II

Lower Division Major Requirements (Area F) (18 Credit Hours)

- TCOM 2010: Technical Writing
- STAT 1107: Introduction to Statistics
- MATH 2202: Calculus II
- GEOG 1101: Introduction to Human Geography
- SURV 2221: Surveying I
- SURV 2221L: Surveying I Lab
- One Hour from Area D

Upper Division Major Requirements (52 Credit Hours)

- CE 1000: Orientation to Engineering and Surveying Professions
- EDG 2160: Civil Graphics and Computer Aided Drafting
- ENVS 2202K: Introduction to Environmental Science
- SURV 3222: Surveying II
- GEOG 3305: Introduction to Cartographic Processes
- SURV 3320: Photogrammetry and Remote Sensing

- SURV 3421: Geographic Information Systems I
or
- GEOG 3315: Introduction to Geographic Information Systems

- SURV 3451: Terrain Analysis
- SURV 3500: Applied Hydrology and Hydraulics
- SURV 4110: Geospatial Sciences Practice
- SURV 4410: Surveying Computations and Adjustments
- SURV 4415: Geodetic Surveying Methods
- SURV 4420: Remote Sensing
- SURV 4465: Legal Aspects of Land Surveying
- SURV 4470: Land Development Design
- SURV 4475: Land Surveying Practice

Upper Level Electives (6 Credit Hours)

- SURV 3XXX or 4XXX
- MATH 3260 Linear Algebra
- MGT 3XXX or 4XXX (advisor approval required)
- GEOG 3XXX or 4XXX (advisor approval required)
- SCI 3XXX or 4XXX (advisor approval required)
- CM 3XXX or 4XXX (advisor approval required)
- ENVS 3XXX or 4XXX (advisor approval required)

Appropriate electives will earn GIS certificate, see advisor

Free Elective (3 Credit Hours)

Any course in the university curriculum.

Program Total (121 Hours)

University-Wide Degree Requirements

See listing of requirements

Note: This program is exempt from the WELL 1000 requirement

Graduation Credit Hour Total (121 Credit Hours)

University College

Culinary Sustainability and Hospitality, B.S.

Contact: Dr. Christian Hardigree

Bachelor of Science Degree

Michael A. Leven College of Culinary Sustainability and Hospitality

(470) 578-7974

The B.S. in Culinary Sustainability and Hospitality incorporates the study of sustainable best-practices emphasizing areas such as resource conservation, food science, nutrition, agro-ecology and essential business skills/abilities. Students implement theoretical classroom concepts through experiential learning opportunities. These include learning how to source local foods, establish water/energy/food conservation programs, and apply resource management techniques to implement a sustainable food hospitality operation in an environmentally conscious, economically beneficial manner.

General Education (42 Credit Hours)

See listing of requirements

Required Courses Specific to the Major:

- ECON 2100: Principles of Microeconomics

Lower Division Major Requirements (Area F): (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- CSH 2100: Introduction to Culinary Sustainability and Hospitality
- CSH 2200: World Cuisines and Culture
- CSH 2300: Basic Culinary Skills
- CSH 2400: Services Management and Food Production
- CSH 2500: Principles of Nutrition for the Professional

Culinary Sustainability and Hospitality Core (36 Credit Hours)

- ACCT 2200: Introduction to Managerial Accounting
- CSH 3100: Food Science I
- CSH 3200: Food and Beverage Purchasing, Logistics and Supply Chain
- CSH 3300: Professional Development
- CSH 3400: Sustainable Facilities Design and Management
- CSH 3500: Organic Agriculture and Beginning Apiary Studies
- CSH 4200: Food and Beverage Cost
- CSH 4300: Hospitality Law and Liability
- MGT 3100: Management and Behavioral Sciences
- MGT 400I: Managing Organizations

- MGT 4002: Managing People
- MKTG 3100: Principles of Marketing

Major Field Electives (6 Credit Hours)

Select two from the following:

- CSH 3390: International Initiatives in Foods (Study Abroad)
- CSH 3610: Club Management
- CSH 4100: Principles of Beverage Operations Management
- CSH 4400: Directed Study
- CSH 4610: Plant-Based Cuisine
- CSH 4630: Spirits, Beers, and Brews
- CSH 4640: Beer Culture
- CSH 4620: Exploring the World of Wines
- CSH 4650: Fundamentals of Brewing
- CSH 4660: Event Management
- CSH 4670: Catering
- CSH 4680: Wedding Planning
- CSH 4690: Baking and Pastry

Internship (3 Credit Hours)

- CSH 3398: Internship (Culinary Services Management)

Senior Capstone (6 Credit Hours)

- CSH 4498: Strategic Management in Hospitality
- CSH 4499: Quantity Food Management

Free Electives (9 Credit Hours)

Any courses in the university curriculum. Students are limited to 6 credit hours in electives from the Coles College of Business.

Program Total (120 Credit Hours)

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements

Graduation Credit Hour Total (123 Credit Hours)

Work Experience and Volunteerism (Both Required)

For graduation, students must complete a minimum of 600 industry work experience/service hours, with a minimum 200 of those hours being degree-focused volunteer (non-paid) service hours through VKSU (all 600 hours can be acquired through volunteerism). Exceptions require

written approval in advance by the department chair. Students will register for CSH 4000 and CSH 4010 for zero-credit for certification that the hours were completed. Only register for these courses if the hours will be completed by the end of the semester.

Integrative Studies B.S.

General Education (42-45 Credit Hours)

See listing of requirements.

Integrative Studies Tracks:

Specialized Studies Track

- A 2.5 AGPA is required for entry into this track.

**Lower Division Major Requirements (Area F) (18 Credit Hours/Must be completed with "C" or better)*

- INTS 1198: Introduction to Integrative Studies
- INTS 2298: Integrative Studies Research Methods
- Plus 12 hours of lower level coursework (these vary depending on academic areas selected)

**Upper Division Major Requirements (39 Credit Hours) (Must be completed with grade of "C" or better)*

- 12 credit hours from two chosen upper-level academic areas.
- 15 credit hours of upper-level coursework approved by the INTS Director reflecting integration and application of upper-level academic skills.
- INTS 4498: Senior Seminar in Integrative Studies

**Related studies (9 Credit Hours)*

- Varies depending on academic areas.

Free Electives (12 Credit Hours)

Any courses in the university curriculum.

Program Total (120-123 Credit Hours)

Note:

* These areas are to be planned closely with an Integrative Studies advisor and must follow requirements made, if any, by the academic areas selected for the degree. Any changes to an approved/signed INTS proposal must be re-evaluated and approved by an INTS advisor.

Environmental Policy Studies Track

A 2.5 AGPA is required for entry into this track.

**Lower Division Major Requirements (Area F) (18 Credit Hours) (Must be completed with grade of "C" or better)*

- INTS 1198: Introduction to Integrative Studies
- INTS 2298: Integrative Studies Research Methods
- Plus 12 hours of lower level coursework (courses may vary)

**Upper Division Major Requirements (51 Credit Hours) (Must be completed with a grade of "C" or better)*

- 12 credit hours each from three academic areas (36 credit hours)
- 15 credit hours of coursework approved by the INTS Director reflecting integration and application of upper-level academic skills.
- INTS 4498: Senior Seminar in Integrative Studies

Free Electives (9 Credit Hours)

Any courses in the university curriculum.

Program Total (120-123 Credit Hours)

Note:

* These areas are to be planned closely with an INTS advisor and must follow requirements made, if any, by the academic areas selected for the degree. Any changes to an approved/signed INTS proposal must be re-evaluated and approved by an INTS advisor.

General Studies Track

A 2.0 AGPA is required for entry into this track.

**Lower Division Major Requirements (Area F) (18 Credit Hours) (Must be completed with a grade of "C" or better)*

Varies depending on interest areas but must include:

- INTS 1198: Introduction to Integrative Studies
- ICT 2101: Information and Communications Technology

- COM 2129: Public Speaking
or
- COM 1100: Human Communication

- LDRS 2000: Finding the Leader Within

**Upper Division Major Requirements (39 Credit Hours) (Must be completed with a grade of "C" or better)*

Varies depending on interest areas, but must include:

- WRIT 3140: Writing in the Workplace
- INTS 4498: Senior Seminar in Integrative Studies
- Plus 12 credit hours in one or a cluster of two academic areas

Free Electives (21 Credit Hours)

Any courses in the university curriculum.

Program Total (120-123 Credit Hours)

Note:

*Course selections will be planned with the assistance of an INTS advisor. Any changes to an approved/signed INTS proposal must be re-evaluated and approved by an INTS advisor.

University-Wide Degree Requirements (3 Credit Hours)

See listing of requirements.

Graduation Credit Hour Total (123-126 Credit Hours)

Leadership Studies Certificate - Embedded

University College

Department of Leadership and Integrative Studies

(470) 578-6207

<http://uc.kennesaw.edu/lis/index.php>

In today's competitive global society, success depends on working as a productive communicator, team player, and decision maker -all skills of an effective leader. The Certificate in Leadership Studies, through theory and practical experience, is designed to prepare students in any major for the dynamics of leading diverse groups and teams, engaging and empowering others, responding to situational leadership opportunities, and acknowledging the power of trust and ethical leadership practices. Five leadership courses, each with a multidisciplinary focus, offers students the opportunity to develop, strengthen and use their leadership abilities.

Required Courses* (12 Credit Hours)

- LDRS 3000: Foundations of Leadership
- LDRS 3200: Leadership in a Global Society
- LDRS 3600: Ethics in Leadership
- LDRS 3800: Leading in Groups

And choose one from the following (3 Credit Hours)

- LDRS 3100: Change and Conflict Leadership
- LDRS 3300: Leadership and Decision Making
- LDRS 3400: Service As Leadership

- LDRS 3500: How Not to Lead
- LDRS 3700: Women in Leadership
- LDRS 4400: Directed Study
- LDRS 4490: Special Topics in Leadership Studies
- Other 3000 or 4000 level LDRS Course

Program Total (15 Credit Hours)

Admission/Placement Requirements:

Students must have and maintain an adjusted 2.5 minimum GPA to enroll in and subsequently be granted the certificate. All LDRS courses require a grade of "B" or better to receive the certificate.

Receiving the Certificate:

Following a final transcript verification, students who meet the requirements will receive a certificate from the Department of Leadership and Integrative Studies. An official notice that the student has met the certificate requirements will also appear on the student's KSU academic transcript.

Honors College

Dual Enrollment Honors Program

The Dual Enrollment Honors Program (DEHP) at Kennesaw State University provides an outstanding opportunity for high school juniors and seniors to get a head start on college. DEHP students take college classes in lieu of high school classes. Students earn college and high school credits simultaneously, and may participate in student activities at both KSU and their high schools. Students may take KSU courses in English, mathematics, social sciences, science and foreign languages. DEHP students make the transition to university life in a familiar, supportive environment. They attend DEHP advising sessions to assist in selection of courses, and may select regular or honors classes. DEHP students attend a special summer orientation session and register for classes before most other students. DEHP courses transfer easily to most public colleges and universities and many private college.

For more information about the Dual Enrollment Honors Program's admission criteria, please go to the link labeled "Honors Opportunities and Early Entry" under the KSU Undergraduate Catalog's "Admissions" link. For additional information, including instructions for applying to the DEHP, please visit <http://honors.kennesaw.edu>.

Please note: Students accepted to both the University and Dual Enrollment Honors Programs may apply for Honors housing on both the Kennesaw and Marietta campuses.

University Honors Program

The University Honors Program offers a community within a university to academically talented, highly motivated students who enjoy lively discussion, creative expression, and intellectual challenge. Although the college is not a degree-granting unit, it offers small honors sections of core courses and interdisciplinary honors seminars, where students focus on deep understanding within an innovative curriculum. Graduation as an Honors Scholar requires completion of the University Honors Program Curriculum, below, as well as an adjusted GPA of 3.25. Two secondary tier designations, that of Honors in the Major and Honors Participant, are also described below. The college also provide opportunities for undergraduate research, domestic and international travel experiences, and community service activities. First-year Honors students have the option of applying for the Great Books Honors cohort

For information about the University Honors Program's admission criteria, application process, and first-year Great Books cohort, please visit <http://honors.kennesaw.edu>.

University Honors Program Curriculum

University Honors Scholar Designation

Students complete a minimum of 8 Honors Learning Experiences plus a capstone series of courses. Students must take KSU1101H if entering KSU with less than 15 credit hours. Students must choose at least three credit hours of HON-prefix course(s) during their program. Additional Honors Learning Experiences (HLEs) may chosen from the following list:

- Honors section of First-Year Seminar (3 credit hours)*

- Honors Sections of General Education Courses (2-4 credit hours each)
- HON 2001: Introduction to Honors Research
- Three sections of the 1-credit-hour, pass/fail Honors Colloquium (HON 3000)
- HON 4490: Honors Special Topics
- HON 3301: Honors Interdisciplinary Seminar
- Honors Discovery non-credit Honors Learning Experience (may be repeated once with a different topic)
- HON 3002: Honors Research Assistance Experience (0-3 credit hours)
- HON 3203: Honors Teaching Assistance Experience (0-3 credit hours)
- HON 4400: Honors Directed Study (1-3 credit hours)
- Honors contracts in any non-Honors course or applied learning experience (non-credit).

Honors Senior Capstone Experience (1-4 Credit Hours)

Note:

To remain in good standing in the Honors program, students must complete an approved Honors Learning Experience (HLE) each semester. Students may complete more than one in a semester, and the additional HLE can be banked for a future semester. Only one additional HLE can be in the bank at a time.

To graduate as an Honors Scholar, an Honors student must submit a fully-approved Honors thesis or other major capstone product that merits a grade of A or B. An electronic Honors Portfolio of all the student's Honors products may also be required.

A student whose major requirements include a senior capstone course or senior seminar may work with the instructor to significantly enhance the thesis or other capstone product for the class, taking HON 4499 for zero credit hours. A student who does NOT have a required capstone course or senior seminar in his or her major will take HON 4499 for 3 credit hours.

Honors in the Major

To earn the designation of Honors in the Major, students must complete a minimum of two of the required four minimum HLEs in the major plus an approved capstone and maintain the required GPA. Departments/Schools may specify additional requirements.

Honors Participant

To be awarded the designation of Honors Participant, students must successfully complete a minimum 6 HLEs and maintain the required GPA. Requires approval of the University Honors Program Director.

Institute for Cybersecurity Workforce Development

Cybersecurity (eMajor) B.S.

The purpose of the Bachelor of Science in Cybersecurity (BS-CYBR) program is to create technologically capable, business-aware cybersecurity professionals capable of applying technical skills and the knowledge of security management to protect computerized information systems from a wide variety of threats, and to manage the risks associated with modern information technology usage. Cybersecurity is a computing-based discipline involving technology, people, information, and processes to enable assured operations. It involves the creation, operation, analysis, and testing of secure computer systems. It is an interdisciplinary course of study, including aspects of information technology, law, policy, human factors, ethics, and risk management often in the context of adversaries.

The Department of Homeland Security and the National Security Agency have jointly designated Kennesaw State University as a National Center of Academic Excellence in Cyber Defense Education with specialized focus areas in Security Policy Development & Compliance and Systems Security Administration.

The Institute for Cybersecurity workforce development requires that BS-CYBR candidates must earn a grade of "C" or better in all upper division courses in order to be counted toward their degree.

The Bachelor of Science in Cybersecurity is a fully online degree that has the primary objective of meeting the high demand for professional degrees in the area of cybersecurity. The degree has core requirements, major requirements, major specializations, and required electives. The major contains those courses considered fundamental to the cybersecurity field and the electives give the student some flexibility in choice.

Admission Criteria

All students must meet the admission requirements for freshmen and/or transfer students as determined by KSU as documented at <http://admissions.kennesaw.edu/>. Admission to the University will require a 2.5 GPA in 17 units of required high school coursework as recalculated by Kennesaw State as well as a minima score requirements for Freshmen and Transfer Freshmen must score an SAT Total Score on 1600 Scale: 1030 AND SAT Reading Test Score: 25 AND SAT Math Section Score: 490 -or- ACT Composite score of 20 AND ACT English sub-score of 18 AND ACT Math sub-score of 18. Other categories of admission have differing requirements as published at <http://admissions.kennesaw.edu/>.

All students must meet the graduation requirements for undergraduate students as determined by KSU and also complete all Major course requirements with a grade of 'C' or better.

The proposed B.S. in Cybersecurity eMajor will be housed in the Institute of Cybersecurity Workforce Development at the University. This degree is intended to be an access degree, enabling a much broader set of options enabling the use of articulation agreements with the technical college system and eCore affiliates across the State of Georgia.

Admission to the BS-CYBR degree program eMajor will be open to any student who has completed (or is scheduled to complete) the General Education and Area F - Lower Division

Major Requirements through any recognized and transferrable method. That includes transfer of credit from other Institutions (following KSU policies for transfer of credit), eCore courses documented by KSU, KSU courses taken on campus as well as KSU online courses. Once accepted as into the eMajor BS-CYBR, students will be eligible to register for courses offered at the eMajor tuition rate.

General Education (42 Credit Hours)

General Education Requirements Specific to this Major:

- Area A- (MATH 1111 and MATH 1112) or MATH 1113
- Area B- COM 1100
- Area D Math-MATH 1190 or MATH 1160
- Area E-ECON 2100 or CRJU 1101
- One Hour from Area D is counted in Area F
- One Hour from Area D is counted in Free Electives

Lower Division Major Requirements (Area F) (18 Credit Hours)

- ACCT 2100: Introduction to Financial Accounting
- MATH 2332: Probability and Data Analysis
or
- STAT 1107: Introduction to Statistics
or
- ECON 2300: Business Statistics
- CS 1301: Programming Principles I
or
- CSE 1301: Programming and Problem Solving I
- IT 1324: Advanced Programming Principles
- CSE 2300: Discrete Structures for Computing
or
- MATH 2345: Discrete Mathematics
- One Hour from Area D

Students are recommended to take BLAW 2200 credit hours counted in Free Electives.

Upper Division Major Requirements (36 Credit Hours)

Upper Division Technical Core

- CYBR 3123: Hardware and Software Concepts
- CYBR 3423: Operating Systems Concepts & Administration
- CYBR 4323: Data Communications & Networking

- CYBR 4423: Linux/Unix Administration

Upper Division Security Core

- CYBR 3100: Principles of Information Security
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Information Security in a Global Environment
- CYBR 4200: Perimeter Defense
- CYBR 4220: Server Systems Security
- CYBR 4330: Incident Response and Contingency Planning

Capstone

- CYBR 4810: Cyber Defense

Upper Division Major Specializations (9 Credit Hours)

All BS-CYBER students are required to take a minimum of 9 credit hours as an upper-level specialization. They must choose one of the following tracks and complete all of the courses listed. The options are:

Systems Security Track

- CYBR 3153: Database Systems
- CYBR 4843: Ethical Hacking for Effective Defense
or
- CYBR 4883: Infrastructure Defense
- CYBR 4350: Management of Digital Forensics and eDiscovery
or
- CYBR 4853: Computer Forensics

Network Security Track

- CYBR 4333: Network Configuration & Administration
- CYBR 4833: Wireless Security
- CYBR 4893: Internet of Things: Applications and Security

Cyber Crime Track

Note: Requires CRJU 1101 as Area E General Education requirement, otherwise students must take as a Free Elective.

- CYBR 3305: Technology and Criminal Justice
- CYBR 4305: Technology and Cyber Crime
- CYBR 4350: Management of Digital Forensics and eDiscovery

- or
- CYBR 4853: Computer Forensics

Major Electives (9 Credit Hours)

Students should choose 9 credit hours from the following:

- CYBR 3396: Cooperative Study
- CYBR 3398: Internship
- CYBR 4400: Directed Study
- CYBR 4490: Special Topics in Cybersecurity
- Any 3xxx or 4xxx IS/ISA/IT/CS/CRJU course the student can meet the prerequisites for except restricted ISA or IT Security course (see advisor for complete listing)

Optional Programs of student that may be considered contemporaneously with the degree:

Informational Technology Minor (Embedded)

Students earning a major in Cybersecurity will automatically earn the Minor in Information Technology.

Criminal Justice Minor (9 + 3 Credit Hours)

Students desiring a minor in criminal justice should take the CJ track outlined above AND the following courses as major and free electives. Note the 4th course will count as a free elective.

- CRJU 3310: Police in America
- CRJU 3332: Corrections
- CRJU 3300: Criminal Courts
- One CRJU course from approved minor elective list (see catalog for listing and availability)

Crisis Preparedness Minor (9 +3 Credit Hours)

Students desiring a minor in crisis preparedness should take the following courses as major and free electives. Note the 4th course will count as a free elective.

Elective Courses (6 Credit Hours, as Free Elective)

Select from the following:

- CRJU 3400: Ideological/Group Violence and Law Enforcement
- CRJU 4100: Ethics in Criminal Justice
- PR 4670: Crisis Leadership Communication
- POLS 4437: Global Security

Required Courses (6 Credit Hours)

Note: BS-CYBR students take ISA 3300 and ISA 4330 in lieu of ISA 3330.

- PR 4460: Crisis Communication
- POLS 4200: Homeland Security Administration

Free Electives (9 Credit Hours)

Any courses in the university curriculum.

Program Total (123 Credit Hours)

Cybersecurity Certificate - Stand-Alone and Embedded

The Certificate in Cybersecurity is designed for students with an interest in the security of computer networks and systems and its application in the expanding field of technology. The certificate program emphasizes the skills and knowledge necessary to protect and inspect systems, and to detect and react to threats to the security of information in those systems. The certificate requires 15 semester hours (5 courses), and all coursework must be completed with a "C" or better.

Required Courses (15 Credit Hours)

- CS 1301: Programming Principles I
- CYBR 3100: Principles of Information Security
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Information Security in a Global Environment

Program Total (15 Credit Hours)

Cybersecurity Minor

The Minor in Cybersecurity addresses students with an interest in the application of information security controls on information systems. The Minor emphasizes the skills and knowledge necessary to defend networks and systems, and to detect and react to threats to those systems. The Minor requires 18 semester hours (6 courses), and all coursework must be completed with a grade of "C" or higher.

Required Courses (18 Credit Hours)

- CS 1301: Programming Principles I
- CYBR 3100: Principles of Information Security
- CYBR 3200: Network Security
- CYBR 3210: Client Systems Security
- CYBR 3300: Management of Information Security in a Global Environment
- CYBR 4330: Incident Response and Contingency Planning

Program Total (18 Credit Hours)

Courses

Accounting

ACCT 2100: Introduction to Financial Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: ENGL 1101 and MATH 1111 or higher; Non-business Majors: ENGL 1101 and MATH 1101 or higher.

An introduction to the language of business. Focuses on financial statements and their use in decision-making. Designed for business and non-business majors.

ACCT 2200: Introduction to Managerial Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100

An introduction to how accounting information is used to manage a business. Includes managerial problem-solving techniques and current trends in managerial decision-making.

ACCT 3100: Intermediate Financial Accounting I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "B" or higher in ACCT 2100 and ACCT 2200, and minimum GPA of 2.0

This course focuses on the collection, analysis, and reporting of financial accounting information. The course includes theory and application of financial accounting concepts within the framework of accounting as an information system. The course also covers several technical accounting topics from a preparer's perspective.

ACCT 3200: Concepts in Federal Taxation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "B" or higher in ACCT 2100 and ACCT 2200, and a minimum GPA of 2.0

Focuses on the fundamental principles and concepts applicable to tax liability determination and tax planning, including an introduction to tax research methodology.

ACCT 3300: Accounting Information Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C," minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A continuation of accounting transaction processing concepts; internal controls and systems analysis and design.

ACCT 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a grade of "C" or better in ACCT 3100.

A supervised work experience program for a minimum of two semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

ACCT 3398: Internship

1-9 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program, approval of the Career and Internship Advisor (KSU Career Planning and Development), and a grade of "C" or better in ACCT 3100.

A supervised credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency. A research paper is required to receive credit. For junior or senior students who wish to participate in an on the job experience in which they may apply their academic training. The work experience may not be with a current employer. The course will be graded on an SIU basis.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

ACCT 4050: Intermediate Financial Accounting II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A continuation of intermediate financial accounting theory and applications, with a focus on detailed technical topics and specialized problems.

ACCT 4100: Advanced Financial Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 4050 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Study of specialized topics in financial accounting, including business combinations, consolidations, and partnerships.

ACCT 4150: Auditing and Assurance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 3300 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course teaches audit theory, attestation, and assurance services. It focuses on the concepts of risk, control, evidence, and ethics for financial reporting and internal control purposes.

ACCT 4152: Internal Auditing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 3300 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course covers internal auditing from a broad perspective to gain a further understanding of the internal audit profession as well as governance, risk assessment, controls, and audit concepts that the internal auditors need to know and understand.

ACCT 4200: Advanced Managerial Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Focuses on specialized topics in managerial accounting theory and application.

ACCT 4250: Advanced Taxation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 3200 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A continuation of income tax concepts, types of taxpayers, decision making strategies, tax research and planning, professional standards and ethics, and the relationship and differences between financial and tax accounting.

ACCT 4300: International Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 4050 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Introduction to accounting-related skills, tools, and knowledge sets useful in the context of investment in and management of international enterprises. Covers translation of foreign currency financial statements, accounting for foreign-currency transactions and hedges, comparative accounting and

disclosure, ethics and other relevant topics.

ACCT 4350: Accounting Systems Audit and Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 3300 with minimum grades of C, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The study of the control and security of accounting information systems with an auditing perspective. Topics covered include: The quality of information, information technology (IT) audit process, types of IT audits, ethics, fraud, forensic auditing, computer assisted audit tools and techniques, and IT governance.

ACCT 4400: Directed Study

1-3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 3.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and the Director of the School of Accountancy prior to registration.

Special topics of an advanced nature not in the regular course offerings.

ACCT 4490: Special Topics in Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and the Director of the School of Accountancy prior to registration.

Selected special topics of interest to faculty and students.

ACCT 4550: Accounting Data Analytics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100, ACCT 3300 and ACCT 4050 with minimum grades of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Knowledge of and competencies in data analytics has been identified as one of the growing needs for future accountants in all practice fields. This course will introduce students to this topic and have students use hands on analytic tools such as Microsoft Access and other data analysis software.

ACCT 4600: Governmental and Not-for Profit Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Study of accounting and reporting practices for state/local governments and not-for-profit organizations.

Course includes consideration of current events and other topical issues related to governments and not-for-profit organizations.

ACCT 4700: Valuation of Closely Held Businesses

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 and ACCT 3200 with minimum grades of "C", FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The study of fundamental concepts and valuation methods used to value a closely held business when there is no established market price. When determining the future benefit stream of a business entity and the associated risk, concepts from finance, economics, accounting and taxation will be incorporated.

ACCT 4800: Fraud and Forensic Accounting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will introduce students to a variety of fraud topics, including occupational fraud and fraudulent financial reporting. In addition, the students will explore the foundations of forensic accounting, including fraud examination techniques. The course uses a mix of articles, cases, and classroom discussion.

African and African Diaspora Studies

AADS 1101: Introduction to African Diaspora Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides a developmental introduction to the interdisciplinary origins and methods of African and African Diaspora Studies (also known as Black, Africana, African American, and Pan-African Studies). Students compare and contrast historical, cultural, economic, and social phenomena in Africa to African-descended people in the Americas, Europe, Oceania and Asia. Students learn about African and African Diaspora Studies as a field of intellectual inquiry and key contributions of pioneers from a variety of disciplinary backgrounds.

AADS 1102: Issues in African and African Diaspora Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support English and Mathematics courses or concurrent registration, if required.

This course provides an overview of key concepts, problems, themes, strategies, and methods of African Diaspora Studies (also known as Black, Africana, African American, and Pan-African Studies). Students explore recent political, economic, and social problems facing the African Diaspora, especially issues of race, class, gender, religion, and ethnicity. Students learn how Africana Studies alumni have used their expertise in addressing these issues and how the discipline is relevant to their own career path.

AADS 2260: Research Methodologies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107

This course is designed to expose the student to the variety of interdisciplinary research methodologies, both quantitative and qualitative, to prepare them for the methodological approaches appropriate for their chosen concentrations in African and African Diaspora Studies.

AADS 3380: Study Abroad

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or Senior status and permission of the instructor.

This course fulfills the study abroad requirement of the B.A. in African and African Diaspora Studies. The content of the course varies depending on available course offerings but focuses on locations in Africa or locations significantly influenced by the African Diaspora.

AADS 3398: Internship

3-6 Credit Hours

Prerequisite: Junior or Senior status and permission of the instructor.

This course is an out-of-the-classroom structured experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the instructor and internship coordinator.

AADS 3500: The Black Woman

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course introduces students to the experiences, theoretical contributions, and representations of Black women in the United States from feminist, literary, historical, and psychological perspectives. Students learn: (a) the impact of racial and gender oppression in the lived experiences of Black women historically and contemporarily; (b) the various ways Black women have coped with and resisted their oppression; and (c) the intersectional effects of class and sexual identity on Black women's lives.

AADS 3780: Trends in African and African Diaspora Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course focuses on current trends, issues, problems, and strategies in the field of African and African Diaspora Studies (also known as Black, Africana, African American, and Pan-African Studies). Particular attention is paid to how socio-demographic variables, such as race, gender, class, religion, and/or ethnicity impact the issues facing the African Diaspora.

Note: The course may be repeated with a change of content.

AADS 4040: Major Issues and Figures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course offers an in-depth examination of a major issue or figure relevant to the field of African and African Diaspora Studies (also known as Black, Africana, African American, and Pan-African Studies).

Notes: The course may be repeated with a change of content.

AADS 4100: Directed Applied Research

1-6 Credit Hours

Prerequisite: AADS 2260 and consent of the instructor and department chair.

This course offers students the opportunity to investigate AADS-oriented concepts and issues by participating in faculty-supervised research or scholarship. Course content and instructional methodologies are determined by the faculty member in discussion with the student.

AADS 4400: Directed Study in African and African Diaspora Studies

1-3 Credit Hours

Prerequisite: AADS 2260, approval of the instructor and department chair.

This course is offered to students interested in investigating special topics and seminars external to regular course offerings. A maximum of 3 hours of AADS 4400 may be used toward satisfying the upper-division major requirements.

AADS 4490: Special Topics in African and African Diaspora Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

A study of selected topics of interest to faculty and students relevant to the field of African and African-Diaspora Studies (also known as Black, Africana, African American, and Pan-African Studies).

Notes: The course may be repeated with a change of content.

AADS 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: AADS 2260 plus 21 hours of upper level courses or permission of instructor.

A capstone course in which students connect and integrate learning from AADS and other courses that they have taken in their concentration, explore the deeper issues in the discipline, research and write a senior thesis, and make technology-assisted presentation of their findings to a committee of AADS faculty.

American Studies

AMST 1102: American Identities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course explores what it means to be "American." Examining "American Identities" from local and global perspectives, and through a variety of disciplinary frameworks, this course focuses on the diverse forms of "American Identity," as well as the social and cultural histories that have shaped these identities. Students examine their own and others' identities. Students gain knowledge and skills related to intercultural relations through various methods that include research, reading, writing, performance, and class activities.

AMST 3700: American Studies: Principles and Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

What is American Studies? And what does it mean to study America? To answer these questions, this reading, writing and discussion-based course introduces students to the field of American Studies: the interdisciplinary study of American cultures. The course critically examines the meaning and culture of America locally and globally, using a wide variety of readings and activities from multiple academic disciplines and popular culture.

AMST 3710: U.S. in the World

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Examines "America" as a cultural signifier that circulates around the world. These representations not only travel to other countries, but also return to us in cultural products from other countries. In addition to cultural theory, we will look at film, television, literature, and music. A primary concern is to interrogate what ideological assumptions underlie our notion of what "America" means.

AMST 3720: America and Empire

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course critically examines imperialism and colonialism in the Americas. Possible course topics include: U.S. imperial projects, global assertions of U.S. power, European colonization of the Americas, or Indigenous Peoples' resistance to empire. We will read across disciplines, pulling from an array of methods and materials, to understand "America" in relation to colonial and imperial ideologies and movements.

AMST 3740: American Popular Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Critical analysis of popular culture in American society. A particular offering of the course could focus on a specific area of popular culture (e.g., books, music, sports, food, mass consumption or advertising) or survey several of those topics. Historical and theoretical readings will support students' analysis of primary texts, including examples highlighting the globalization of American popular culture, mass markets and niche markets, the social formation of taste, and shifts in society's preferences for mass consumption in different time periods.

Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.

AMST 3750: Place in American Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course offers a thematic study of the cultural, social, and economic patterns of American places using texts and methods from a variety of disciplines such as history, literature, and sociology. Employing the techniques of critical reading and historical analysis, students interrogate texts ranging from contemporary prize-winning novels, film and media representations, to primary historical documents to gain a fuller understanding of both the place studied and the significance of "place" in culture.

Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.

AMST 3760: Advanced Studies in American Identities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Examines the construction of individual identities and identity groups in American culture. Students survey and critique a range of texts expressing and representing the formation of identity constructions around such categories as race, gender, ethnicity, national origin, class, and sexuality. Students consider the various historical, cultural and social forces that shape (and sometimes resist) diverse views of American identity both within and outside the U.S.

Notes: Course may be repeated with a change in content.

AMST 3770: American Cultural Productions

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Examines the production, interpretation, performance, circulation, and contestation of cultural practices and activities that produce ideas and beliefs about "America." The course may focus on a particular cultural product (e.g., the suburbs) or cultural productions related to a particular historical period (e.g., the Great Depression) or to another discrete category (e.g., racial productions).

Notes: Course may be repeated with a change in content.

AMST 3780: American Cultural Movements

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Examines the history of and relationships between selected cultural movements in the United States through an interdisciplinary lens. Drawing primarily on historical resources and cultural texts, the course analyzes the evolution and conduct of movements or of a particular major movement, as well as the evolution of academic inquiry and understanding of these movements.

Notes: Course may be repeated with a change in content.

AMST 4490: Special Topics in American Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

A study of selected special topics of interest to faculty and students.

Notes: Course may be repeated for credit provided the content differs entirely from the previous offering.

Anthropology

ANTH 1102: Introduction to Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is an introduction to anthropology's four major subfields: biological anthropology, archeology, cultural anthropology, and linguistics.

ANTH 2220: The Anthropology of Death

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

In this course, students examine how anthropologists have looked at the topic of death from a multitude of perspectives. Students explore the importance of death to the field of anthropology and also use it as a lens to examine American attitudes toward and rituals surrounding death.

ANTH 2777: Anthropology of Tourism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course introduces students to anthropological explorations of tourists and tourism. It enables students to understand the deep cultural impact of contact through reading historical and contemporary ethnographic works of tourism and tourists, and their respective impacts on cultures and identities.

ANTH 3300: Anthropological Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3307 and any two of ANTH 3301, ANTH 3303, ANTH 3305

This course surveys the historical development of anthropological theory. It emphasizes the major theories and theoreticians in the discipline of anthropology and their importance for understanding contemporary anthropological research.

ANTH 3301: Human Origins

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course is an introduction to the evolutionary origins of humans. Major topics include evolutionary theory, primate behavior and taxonomy, the fossil record of human and non-human primate evolution, and the interaction of culture and biology as it relates to human evolution.

ANTH 3303: Introduction to Linguistic Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

Languages constitute the social life and cultural practices that anthropologists study. This course introduces the student to anthropological approaches to the study of language use, which is distinct from a linguist's approach to language. Students learn how languages shape and reflect our thoughts and identities. Students examine the complex world of meaning-making, which form the fundamental component of our social, political, economic, and cultural life.

ANTH 3305: Principles of Archeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102 or permission of the instructor.

Archeology is the subfield of anthropology that has as its goal the understanding of the human past by studying the material remains that people leave. This course will cover the history, goals, methods, and theoretical base of current technology. Cultural resource management will be introduced as well.

ANTH 3307: Cultural Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

The comparative study of human cultures and societies through use of cross-cultural analysis of human behavior and case studies. Major foci are comparisons between universal and culturally relative aspects of human behavior, comparative social organization, cultural change and adaptation, and contemporary global cultural problems.

ANTH 3310: Cultural Diversity in the U.S.

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

The interrelated issues of culture, race, ethnicity, identity, gender, and social stratification in American society are examined through a holistic and comparative perspective with an emphasis on the examination of case studies.

ANTH 3315: Indigenous Peoples of the Southeast United States

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An examination of the culture of the prehistoric, historic and contemporary Native Americans of the Southeastern U.S. including the Mound Builders, Cherokees, Creeks, Choctaws, and Seminoles.

ANTH 3320: Lab in Physical Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3301 (or concurrent enrollment) and STAT 1107

This course provides students with practice in techniques used by physical anthropologists in areas such as: human skeletal anatomy, forensic anthropology, paleontology, primatology, human growth and development, and population genetics. In addition, students get an introduction to important literature in the field. This course is a prerequisite for some upper division physical anthropology courses

ANTH 3321: Indigenous Peoples of North America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

The study of contemporary issues affecting Native American peoples through a survey of traditional cultures and culture change.

ANTH 3335: Archeology Field Techniques

3-6 Credit Hours

Prerequisite: ANTH 3305

This course is an archaeological field course designed to teach students the skills and techniques of modern archaeological survey, excavation, and laboratory analysis. The site of the local field school varies from year to year, but the international opportunity is an archaeological site in Belize, Central America. Contact the professor prior to registration for the determination of credit hours.

ANTH 3340: Religion, Magic, and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3307

This course examines the anthropological approach to religion and magic, which privileges local religious experiences and practices and places them in socio-cultural context. This course encourages students to consider the roles that religions play within broader adaptive systems, and how religions alternately promote both cultural stability and cultural change. Cosmologies, religious systems, and magical systems

of thought are explored from an anthropological perspective.

ANTH 3345: Food and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3307

This class takes a global look at the social, symbolic, and political-economic roles of food, including how people in different cultures and environments throughout history define themselves through their food ways. The course explores a cross-cultural range of identities and socialities built through food production, preparation, and consumption, and how these change over time.

ANTH 3350: Cultures and Societies of the World

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3307

A comparative survey of culture and social organization in various regions of the world with a focus on contemporary social problems, cultural change and adaptation.

ANTH 3355: Capitalisms and Cultures in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course compares and contrasts various forms of capitalisms and cultures in Asia to understand the dynamics of society and political life. This course enables students to develop a global perspective on critical issues that concern policymakers, business-strategists, development-workers, and academics from an anthropological perspective. Students compare and contrast various forms of capitalism in Asia from an anthropological vantage point for understanding dynamics of society and political life in Asia.

ANTH 3360: Anthropology and Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3307

This course introduces students to methods, theories, and topics in African historical and contemporary anthropology. Particular emphasis is placed on how people from the West have encountered and come to understand African peoples and vice versa. This course examines how the colonial encounter helped structure methodological and conceptual formulations in anthropology and subsequent critiques and revisions. It also examines many contemporary African issues through the lens of anthropology.

ANTH 3365: Afro-Brazilian Culture and Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course explores the Afro-Brazilian experience in multi-racial Brazil, where the majority of the population is of African descent. This course focuses on how Afro-Brazilian culture, politics, music, samba, capoeira (martial arts), carnival and religion have impacted and often defined Brazilian society and culture. The course also focuses on Brazilian racial identity, social movements and racism. Brazil is constantly situated within the African Diaspora.

ANTH 3375: Engaged Archaeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

Although archeology is a scholarly subject, it is not divorced from contemporary issues. In this class, students learn the role that archeology plays in various publics and communities. Students identify and engage stakeholders related to an archaeological site and undertake a hands-on project such as developing a heritage management plan or a collaborative excavation plan. Students also evaluate competing interpretations of the past and develop a narrative that incorporates multiple understandings of material culture.

ANTH 3380: Maya Archeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3305

This course is designed to introduce students to the ancient Maya, whose civilization flourished in the lowlands of Central America between 1000 B.C. and A.D. 1500. It also examines reasons for the rise and fall of classic Maya civilization, including topics such as the development of complexity, settlement, subsistence, art and architecture, ritual and religion, and intellectual achievements.

ANTH 3390: Lab in Archeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3305

This course introduces laboratory methods through a project-oriented, hands-on format. A major focus of the course is on the inferential processes through which archaeologists recover and understand the past. This course also introduces many of the important principles and concepts that archaeologists use to analyze, manage, curate, and publish artifacts and the data associated with them. In addition, it allows the opportunity to have some hands-on experience with artifacts. Hands-on experiments in class help reinforce the theoretical concepts. Finally, the main goal is for the student to get basic "literacy" with respect to archaeological analysis and develop good lab habits rather than master any particular kind of analysis.

ANTH 3397: Anthropology Practicum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3300, ANTH 4450, 90 credit hours completed, and permission of the instructor.

This course is a structured field-based or on-campus research experience in a supervised setting related to anthropology. Practical experience is combined with scholarly research in the topical area of the practicum under the guidance of a faculty committee. Projects are selected in advance of the semester of the practicum. Students learn to apply research skills in a practical setting.

ANTH 3398: Internship in Anthropology

variable 1-12 Credit Hours

Prerequisite: ANTH 3300, ANTH 4450, 90 credit hours completed, and permission of the instructor.

A structured off-campus experience in a supervised setting that is related to the student's major. Practical experience is combined with scholarly research in the topical area of the internship, under the guidance of an interdisciplinary faculty committee. Sites must be selected in advance of the semester of the internship.

Notes: A departmental internship orientation session is scheduled once a semester.

ANTH 3521: Ethnography of Media: Global Perspectives

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102, or permission of the instructor.

This course examines how media images and usage shape the identities of individuals and groups around the world. Drawing on ethnographic studies done by anthropologists, this course prepares students to see how representations of peoples, places, practices, and events in the media shape our ideas about others and ourselves. Individuals' and groups' relationship with the media is the key element in understanding how people relate to each other within and across cultures and political boundaries.

ANTH 3777: Global Ethnographies of Labor

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course establishes the centrality of labor in understanding social identities and social change around the world. It emphasizes the cross-cultural meaning of "labor." Through ethnographies, it locates the effects of larger global processes like development, war, tourism, and their changing impact on meaning of labor for people's individual and collective identities.

ANTH 3999: Anthropology of Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course introduces students to anthropological approaches to studying gender relationships in various cultural contexts. It familiarizes students with the relationship between feminism and anthropology. It examines how the research of feminist anthropologists shaped the central theoretical, methodological, and ethical concerns within anthropology. It also emphasizes why ethnographic methods are essential for understanding the complex gender relationships in a globalizing world.

ANTH 4100: Directed Applied Research

1-6 Credit Hours

Prerequisite: Any upper-division anthropology course and approval of the instructor and department chair.

This course offers students an opportunity to investigate anthropologically-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies are identified by the faculty's needs and expectations.

ANTH 4400: Directed Study in Anthropology

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

ANTH 4405: Human Variation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3301

*This course provides an understanding of the nature and extent of human biological variation, as well as an understanding of how it is studied. The course focuses on two separate yet inter-connected topics: the biological variation that exists within our species, *Homo sapiens*; and the concept of race.*

ANTH 4420: Lab in Forensic Anthropology

0 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102 or ANTH 3320 and permission of the instructor.

This laboratory class provides an overview to the field of forensic anthropology for undergraduates. Forensic anthropology is an applied field of physical anthropology that seeks to recover, identify, and evaluate human skeletal remains within a medico-legal context. This generally includes the determination of an unidentified individual's sex, age, ancestry, stature, and in many cases, circumstances surrounding death.

ANTH 4421: North American Archeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3305

An introduction to archaeological goals, methods, and interpretation of the prehistory of North America.

ANTH 4422: Archaeology of Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102 or ASIA 3001

This course examines cultural and historical developments in Asia from approximately 10,000 BCE through 1600 CE. Students learn about the rise of complex societies, cities, and states; early economies;

empires; and the role of archaeology in modern Asia. Along the way, students engage in major debates that have arisen from competing interpretations of the archaeological record.

ANTH 4425: Historical Archeology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 3305

The course introduces students to methods and issues in American historical archeology. Particular emphasis is placed upon archaeological methods and documentary research, changing gender roles, ethnicity, and technological innovations. Case studies will focus on the South, but other regional contexts may also be included.

ANTH 4430: Environmental Anthropology Field Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102

This course exposes students to the field of environmental anthropology as they experience fieldwork in the natural environments of Georgia. The intensive field methods and research approaches in this course allow students to learn how to work as part of an anthropological research team as they examine and evaluate global research issues in environmental anthropology at the local and regional level. The course includes topical lectures, field methods, lab analysis, and interactive team projects.

ANTH 4450: Research Methods in Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107, ANTH 3307, and any two of ANTH 3301, ANTH 3303, ANTH 3305.

Major theoretical ideas and methods used in anthropological research are examined with a focus on applying them in research and practice.

ANTH 4490: Special Topics in Anthropology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Prerequisites will vary with each course. The prerequisites will be listed in the schedule of classes.

Selected topics of interest to faculty and students.

Apparel and Textiles

ATT 1000: Orientation

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Provides ATT students an overall introduction to the apparel industry, career opportunities in the field and the ATT curriculum.

ATT 1150: The History of Fashion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course explores the history of fashion, designers and businesses from past to present and how understanding the fashion past influences future trends. Historical roles of dress in western civilization along with the cultural, social, and physical evolution are explored.

ATT 1200: Apparel Design Graphics

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course covers the fundamentals of vector drawing using Adobe Illustrator and Adobe Photoshop. Students will learn software tools and techniques including drawing tools, path editing, shape manipulation, blending, shading, object layering, technical flats, illustrations, and design and reproduction considerations. Application and principles of computer graphics will be taught and used to create successful projects.

ATT 1300: International Sourcing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Survey of international sourcing strategies including the decision-making process, transportation, domestic production, Asia/Europe/Americas operations, foreign investment, foreign purchase, turn time, competitive advantage, communications, full package production capabilities, cultural priorities, political influence, international regulations and alliances, costs, quality, and technology.

ATT 1400: Principles of Merchandising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Merchandising functions are discussed that include developing strategies to have the right merchandise, at the right price, at the right time, in the right amount and at the right locations to meet target customer needs. This course will explore apparel and consumer product strategies and methods used in planning inventory. Issues in wholesaling, retailing, advertising, and promotion will be included.

ATT 2301: Apparel Computer-Aided Technical Design I

2 Class Hours 4 Laboratory Hours 4 Credit Hours

The use of industry standard computer systems to determine the product information for apparel and consumer textile products including source materials, processing and assembly options, pattern development, sizing theory, garment fit and product development. Students will develop a complete set of flat patterns and alternate designs utilizing manual and computer software methods through applied project work. Principles of material utilization, pattern engineering, quality, and final design will be emphasized.

ATT 3100: Fashion Merchandising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 1400

Application of merchandising principles as they relate to buying, problem-solving, retail math and visual presentation using standard industry practices and software. Students will learn how style, color and

presentation are major ingredients to successful merchandising producing customer excitement and demand.

ATT 3150: Visual Merchandising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 1400

This course examines the history, visual tools, application, and theory of display techniques used in developing successful visual apparel merchandising. Students learn how to use visual merchandising to entice customers to buy and thereby increase sales.

ATT 3250: Math Applications in Merchandising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107 or IET 2227

Students learn the appropriate math applications for planning, controlling and interpreting the merchandising functions. An understanding of sales planning, merchandising factors, assortments, gross margin and their impact on the financial success of an organization are explored.

ATT 3398: ATT Internship

1-12 Credit Hours

Prerequisite: Department Chair Approval

This course is a structured experience in a supervised setting with an industry partner that is related to the apparel, fashion or textile industry. The goal is for students to attain more practical experience while using their acquired academic skills.

ATT 3505: Fabric Formation and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides the student with the understanding of how fabrics are constructed and the fundamentals of fabric design through application software used in industry today.

ATT 3600: Apparel Analysis and Product Development

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 1400

This course discusses the steps involved in apparel product development from concept through delivery will be covered from the perspective of the manufacturer and the retailer. Product creation, design, marketing, merchandising, sourcing and distribution are discussed along with a study of stitch formation and seam application.

ATT 3602: Apparel Computer-Aided Technical Design II

2 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: ATT 2301 and ATT 3505

Manual and computerized pattern grading theory are demonstrated and practiced by students utilizing

industry standard digitizing, grading, and marker making systems. Principles and methods used in the preparation, planning, and cutting of fabrics and materials in apparel/textile products are presented including preparatory processes related to fabric cutting. Also presented are basic principles and computer methods of calculating, designing, and making pattern markers for apparel/textile products including yardage, cost estimation, and garment and fabric specifications through applied project work. Laboratory work includes developing cost and quality factors and the operation of equipment for inspecting, marking, shading, fabric defects, spreading, cutting and ply numbering. A systematic appraisal of the factors governing economical fabric use, including: in-depth study of the relationship of pattern make-up to fabric consumption; the impact of width variation to total consumption; and the relationship of all fabric defects to total utilization is presented.

ATT 3800: Fashion Forecasting, Data Analysis & Consumer Trends

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Explore the techniques used in industry today including computer software programs to assist with consumer-driven fashion forecasting. Students will examine how to identify, track, and analyze trends in apparel and consumer products consumption. Both long-range and short-range forecasting strategies will be used for market analysis. Consumer trend research activities involve collection of information from multiple sources on a continual basis for the consumer style selection, color selection, and the fabric and trim market.

ATT 4444: Quality Assurance for Textiles and Apparel

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 3505

This course is designed to introduce the student to the quality aspects fabric and apparel. Quality assurance areas are examined such as materials testing, sampling, sewability and preparing product specifications.

ATT 4490: Special Topics in ATT

1-9 Credit Hours

Prerequisite: Department Chair Approval

This course covers special topics related to apparel, fashion or the textiles such as design, product development, textiles, sourcing, marketing and merchandising. Students may take this course more than once for credit with approval of the department chair.

ATT 4670: Apparel/Textile Business Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 1300 and ATT 2600 and ATT 3602

Evaluation of the comprehensive factors that determine sound business practices for an apparel enterprise. The course explores the targets markets, a business plan, garment costing, product lifecycle, quality assurance and marketing.

ATT 4750: Advanced Design and Product Development

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 1200

Students will examine the fashion industry design techniques through the use of technology in both 2D and 3D applications. The course surveys product development software and presentation methods used in industry today.

ATT 4840: Textile/Apparel Senior Project

1 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ATT 4670 and ATT 4750

This course is designed to provide the student with integrated knowledge from previous courses. Students are required to use their skills in forecasting, design, merchandising, sourcing and marketing along with the financial aspects of establishing a fictitious company. A formal written report and oral presentation will be evaluated by faculty and industry representatives.

Applied Computer Science

ACST 2301: Problem-Solving and Digital Game Design

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English and Mathematics courses, if required.

This course is an introduction to programming and problem solving, emphasizing the analysis of problems and design of solutions using a game design engine. Content will also include an introduction to computer game design, with example games and game projects. Concepts covered will include programming logic structures, object-oriented design, prototyping, game design approach, Agile Development, real-time constraints, threaded objects, inter-object communication, object inheritance, alarms, event management, elementary graphics, beta-testing, play-balance, and user-interface design.

ACST 2312: Programming with .NET Framework

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: ACST 2301

This course covers the fundamentals of programming with C# by using Visual Studio and the .NET framework. Topics discussed in this course include programming with the Visual Studio environment, basic syntax of the C# language, classes and objects, Inheritance, Interfaces and abstract classes, program flow and events, generics, collections, graphic applications.

ACST 3330: Data Structures and Database Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312 or CS 1302 or CSE 1302 or CSE 1312

This course covers the fundamental and advanced data structures and database programming techniques. Topics discussed in this course include: Programming with List, Queue, Stack, Hash Table,

BST; ADO.NET; Language-Integrated Query (LINQ); Modern ORM tool; and ASP.NET Web Services.

ACST 3340: Modern Languages: Theory, Scripting, R, HPC, Fortran

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 3330

Coverage of various scripting languages, the R language, and parallel programming languages will be included. This course introduces the fundamental concepts of programming languages and how languages are translated for execution. Topics will also include variable storage, control structures, linking and binding, and exceptions. Students will study Python, R, ECL, Thor, and Roxie languages.

ACST 3510: Computer Architecture from Foundations to Cloud

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312 or CS 1302 or CSE 1302 or CSE 1312

Coverage will include computer architecture fundamentals, processor architecture, high performance and clustered architectures, and cloud computing. Students will learn the foundations of computer organization and architecture, processor design, instruction sets, system design, cache design, multiprocessor architectures, parallel computing theory, high performance clustered architectures and cloud computing.

ACST 3530: Linux Operating Systems and Networking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312 or CS 1302

This course provides a practical coverage of operating systems and networking by using Linux, a widely used open source operating system. Topics discussed in this course include basic concepts of operating systems, Linux kernel, system management basics, task scheduling, disks and devices, file systems, memory, system boots, basic concepts of networking, networking configurations, networking services, and shell scripts.

ACST 3540: Social Media & Global Computing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312

Coverage will include the fundamentals of building systems with new social media technologies and will explore how these technologies affect social, economic and political organization on a local and global scale. Topics will range from social networking, SMS, peer-to-peer networks, content aggregation technologies like portals and mashups, and media sharing functionalities like YouTube and Flickr. Activities will include the development of student designed wikis, mashups, peer-to-peer applications and web services.

ACST 3710: Digital Game Design and Team Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312

This course provides an introduction to digital game design, game engines, multi-player games, and the game development process. Students will develop games individually and in groups. Students will make formal presentations, formally evaluate game designs and provide beta-testing feedback and will incorporate beta-testing feedback into their designs.

ACST 4320: Data Warehousing and Mining

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3410

This course covers concepts, techniques, and applications of data warehousing and data mining. Topics discussed in this course include: dimensional modeling, extraction-transformation-loading (ETL), Online Analytical Processing (OLAP), Data Mining Extension to SQL (DMX), Naïve Bayes, Decision Tree, Association Mining, and Clustering.

ACST 4490: Special Topics in Applied Computer Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Prerequisites vary depending on topic.

Special topics of interest to faculty and students.

ACST 4550: Mobile Computing with Android

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 2312

This course covers the fundamentals of Android programming using the Android SDK. Topics discussed in this course include: fundamental concepts in Android programming - activities and intents, designing user interface using views, data persistence, content providers, messaging and networking, location-based services, and developing android services.

ACST 4570: Cloud Computing and HPCC Systems Platform

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3410 or CSE 3153

Cloud Computing uses Internet as the platform for the development and delivery of computing technologies. Topics discussed in this course include: cloud computing concepts, cloud computing architecture, Infrastructure as a Service (IaaS), Platform-as-a-Service (PaaS), Software as a Service (SaaS), cloud computing access and implementation, and cloud computing with HPCC Systems.

ACST 4620: Computing Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACST 3530 or CS 3502

This course covers basic concepts and practices in computer and network security. This includes topics such as cryptography, authentication, authorization, secure protocols and principles for developing secure software. Applications will include using security frameworks to develop software and configuring security support systems.

ACST 4850: Interdisciplinary Project and Portfolio Preparation

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: ACST 3340

Students will complete an applied computer science project that encompasses the computer science domain and the chosen domain of the selected concentration area. Students will also prepare and complete an online portfolio of their work, research, and projects appropriate for presentation to prospective employers.

ACST 485 I: Applied Computer Science Research Thesis

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Concurrent: ACST 3340

Students will complete an applied computer science undergraduate research thesis that encompasses the computer science domain and the chosen domain of the selected concentration and minor area in the sciences. A student will work under a thesis committee with a thesis committee chair. Students are encouraged to include a committee member from the minor area.

Architecture

ARCH 1000: Introduction to Architecture

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: ARCH Majors and Minors Only

This course will explore theoretical and practical frameworks that inform architecture. Relevant theoretical and practical issues will be presented and discussed, allowing students to understand how fundamental parameters in design, including formal, spatial, and phenomenal factors, influence decision-making and inform critical thinking. Students shall be introduced to social and ethical stewardship that center on sustainability and socially-engaging designs.

ARCH 100 I: Architecture Studio I

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH Majors and Minors Only

This course is the first design studio. Through exercises and projects, it introduces a variety of skills and fundamental principles in design for the beginning student in architecture including but not limited to the following: graphic observations, analysis, and representations, design process, architectural drawing

and drafting, model building, and verbal communication.

ARCH 1002: Architecture Studio II

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 1001

This course builds and elaborates upon the skills and subjects introduced in Architecture Studio I by engaging design problems at scales larger than in the previous studio and by investigating more complex problems, including building language and elements. It culminates with a capstone design project that summarizes and measures the learning of the first year, and prepares students for the second year.

ARCH 124 I: Design Communication I

1 Class Hours 3 Laboratory Hours 2 Credit Hours

This course offers lecture and practicum providing fundamentals of design communication through principles of drawing conventions and related techniques including orthographic projections, paraline drawings, and perspective construction systems to represent design ideas and built forms. This involves use of manual media, 2D image manipulation and 3D modeling using digital media. The intention of the course is to develop visual literacy through visual thinking and to develop skills to represent objects and simple buildings in both two and three-dimensions.

ARCH 2003: Architecture Studio III

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 1002

This course builds on the design thinking skills developed during first year studios. This course initiates the application of research from site, context and case studies in the design process and emphasizes design concept development. Projects initiate the design of interior and exterior conditions, site design and the architectural design of structural systems.

ARCH 2004: Architecture Studio IV

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 2003

This course continues the development and use of generative design concepts begun in Architecture Studio III with projects of increased size and scope. Building programming and basic building codes are introduced and emphasis is placed on the introductory design of materials and material systems.

ARCH 2030: Global Sustainability Strategies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This is a study of International aspects of buildings related to social orientation by looking at design and construction around the world in the context of sustainability and the carbon footprint of how we live. Form factors are discussed, and the issues of planning, design and construction explored. The Architect/Engineer/Construction Manager's perspectives will be completed by specific building examples. International differences in the role of buildings/structures within our physical fabric will be explored, yet common threads will be found which can be useful in a shrinking world and a more universal

construction industry. This course is open to all majors and undeclared students.

ARCH 2111: Architecture Culture I: Early Civilizations & Medieval

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The Architecture Culture sequence is designed as a historical survey of Architectural history and theory. Its aim is to develop an understanding of how architecture manifests the socio-cultural conditions of an era by examining the relationship between architecture and other cultural discourses such as philosophy, aesthetics, science, religion, politics and technology. It also examines how architecture, as a cultural artifact, transforms through time in response to alterations in its surrounding cultural context. This course introduces early architectural traditions and the formulation of European traditions through the Gothic.

ARCH 2211: Architecture Structures I - Introduction to Structures

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "C" or higher in (PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L)

This course is an introduction to architectural structures with an emphasis on statics and strength of materials concepts. Focus is on force systems, shear and moment diagrams and determination of section properties.

ARCH 2242: Design Communication II

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ARCH 1241 or permission of the instructor.

This course offers lecture and practicum and is seen as a continuation of Design Communication I. It introduces techniques and conventions of graphic communication as an aid for architectural design. This course advances levels of visualization and representation of architectural building and related design ideas. Techniques include hand drawings, digital rendering, and 3D computer modeling. The goal is to link traditional techniques and digital modeling to various studio works both at process level and final presentation level. A variety of representation techniques are introduced to highlight design vocabulary through a series of projects ranging from page layout to building. Both small-scale objects and moderate-scale structures/buildings can be used as base information to represent concepts of design and techniques of representation.

ARCH 2311: Environmental Tech I -Systems Selection and Materials

2 Class Hours 3 Laboratory Hours 3 Credit Hours

This course offers lecture and practicum. It introduces selection criteria of materials and their properties relative to structural and enclosure systems. Emphasis is placed on wood, steel, masonry, and concrete structural systems. Enclosure Systems are explored in relation to various applications of existing and new materials and finishes that building systems entail within the context of sustainability.

ARCH 301 I: Architecture Studio V

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 2004 and acceptance into the upper division upon portfolio review.

This studio emphasizes the importance of conceptual architectural thinking, materiality, and natural daylighting and introduces integration of building technologies within the architectural design process. The majority of the semester focuses on a medium sized, mixed-use project located on a suburban/exurban site.

ARCH 3012: Architecture Studio VI

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 301 I

This course is a continuation of ARCH 301 I and the integration of building technologies. Students design a medium to large-scale project within a dense urban setting with a focus on the contemporary workplace. Emphasis is placed on site context and systems and materials research in support of design intent. The first half of the semester is devoted to project design and the latter half is spent examining construction tectonics through large-scale physical models.

ARCH 3112: Architecture Culture II - The Renaissance through 1850

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines the rise of renaissance architecture and architectural theory and traces the spread of their influence across Europe into the enlightenment. The architectural impact of colonial expansion is studied as European architecture interacts with or displaces the local traditions of colonized areas in Asia, Africa, and the Americas.

ARCH 3113: Architecture Culture III: 1850 through 1945

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course explores the innate relationship between the making of architecture and architectural theory as the events of the nineteenth and twentieth centuries unfold. Nineteenth century historicism in Europe and the United States is introduced and followed by an examination of the changing relationship to history that precedes the turn of the twentieth century. This course then begins an investigation of the diverse regional and conceptual approaches to modernity, covered up to the International Style Exhibition.

ARCH 321 I: Architecture Structures II: Concrete and Lateral Loads

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 221 I

This course is a continuation of ARCH 221 I with emphasis on gravity loads and basic design of wood structural components including beams, columns, and trusses. Engineered wood products, glue-laminated, and connections are also covered.

ARCH 3212: Architecture Structures III: Steel and Wood

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ARCH 3211

This course is a continuation of ARCH 3211 with the design of steel structural members, connections and statically determinate structural steel systems. Approximate analysis of rigid frames is introduced, and the student learns to use "pre-packaged" computer programs to input data and evaluate results.

ARCH 3313: Environmental Technology II: Human Comfort and Building Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARCH 2311

This course offers lecture instruction that is focused on the fundamental connection between human comfort and active / passive design mechanisms. Topics include building context / orientation and form, envelope characteristics and materials, and human comfort within interior environments. Additionally, energy conservation and major mechanical systems are examined in relation to building typology and sustainability.

ARCH 3314: Environmental Technology III: Lighting, Electrical and Acoustics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARCH 3313

This course is the culmination of the environmental technology sequence. Lectures elaborate upon prior coursework and place focus upon natural and artificial lighting, electrical systems, and building acoustical design. Students will continue to explore the connection between building form and environmental design strategies to develop and enhance interior atmospheres.

ARCH 3398: Internship

Variable 1-12 Credit Hours

Prerequisite: Department Approval

This course is an internship course designed to provide real world experience options supported by the department.

ARCH 4013: Architecture Studio VII: Integrative Design

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 3012, ARCH 3314 and ARCH 3212

This course focuses on building structural systems and systems integration in relation to an architectural concept. Students will work on a program allowing them to study the impact of site and programmatic forces in relation to integrative principles as described by NAAB. The course builds upon and emphasizes synthesizing knowledge and skills acquired in concurrent and prior coursework.

ARCH 4014: Architecture Studio VIII: Urban Lab

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 4013 and ARCH 4116

This course focuses on designing urban environments and aims to expand students' design skills to a larger scale than single buildings or single sites. Integrating experiential data to conventional analysis, the studio aims to teach creating humane, just, aesthetically pleasing and livable urban environments.

ARCH 4114: Architecture Cultures IV: The Development of Architecture into the Twenty-First Century

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARCH 3113

This course continues the investigation of architecture culture by examining the development of the diverse regional and conceptual approaches to modern Architecture from the international style to the present, including the development of contemporary theoretical positions in architecture.

ARCH 4116: Urban Planning and Design Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines historic and current trends of urban design, development and growth. Diverse socio-economic-political and spatial issues that shape and continuously transform the physical fabric of cities, metropolitan centers, and regions are the focus of this course. The course requires critical and applied assignments, through which the students explore and understand theoretical and applied underpinnings of wide-ranging and diverse urban forms and practices.

ARCH 4117: Thesis Prep

2 Class Hours 0 Laboratory Hours 2 Credit Hours

The course prepares students to develop topics for their Thesis Proposal. Students must develop a clear design premise supported with research and a clear methodology to develop a robust thesis proposal for their thesis Project.

ARCH 4224: Professional Practice I: Codes and Technical Documents

2 Class Hours 2 Laboratory Hours 3 Credit Hours

This course offers lecture and practicum. It introduces Standard Building Code, N.F.P.A. 101 and A.D.A and / or International Building Code. Emphasis is placed on theory of building safety, code document organization and the application of codes to actual buildings. The learning of codes is further extended by applying the code knowledge to producing an actual set of technical [contract] documentation of an assigned architectural project.

ARCH 4225: Professional Practice II - Cost Control

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course introduces methods commonly used concepts of building economics to create budgets for the construction cost of commercial building projects from conceptual discussions with the Owner and

the early stage of development of the drawings and specifications. These methods are typically used by architects and general contractors for feasibility and value engineering and building economic studies. The focus of this course is to enable architectural students to effectively create realistic estimates of probable economic cost for their clients and thereby work as a team member with the Owner and General Contractor to establish and maintain a project budget throughout the process of project design and construction.

ARCH 4226: Professional Practice III: Practice and Ethics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course introduces the study of professional ethics, laws governing the practice of architecture and contractual relationships. It seeks to develop a working knowledge of how the American Institute of Architects (AIA) Document Series influences the method and legality of architectural practice. It emphasizes office management, professional liability and insurance, the owner-architect agreement, the architect-consultant agreement, owner-contractor agreement, bidding procedures and conditions of the contract management.

ARCH 4400: Directed Study

Variable 1-3 Credit Hours

Prerequisite: Departmental Approval

This course is designed to provide an independent study option for students to satisfy curriculum requirements.

ARCH 4490: Special Topics

Variable 1-4 Credit Hours

Prerequisite: Departmental Approval

Special Topics in Architecture determined by the Department topics vary in credit hour and in focus

ARCH 5015: Focus Studio

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 4014

The Fifth-Year Focus Studios are intended to introduce the student to design research and its application, while adhering to creativity, critical thinking, processes of making, and constructability. The annual Focus Studio is an intrinsic part of the professional core of the Architecture Program and is designed to foster a strong relationship between the program, our students, and the profession as a whole. All qualified fifth year students have the option to select a studio critic who will broaden their area of interest in a subject-based studio.

ARCH 5016: Thesis Research

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ARCH 4117

Students pursue their thesis topic conceived in the Thesis-Prep course into a fully developed thesis proposal under the guidance of their thesis committee. Thesis Committee (two internal professors) must

approve student Design Proposal. This course must be passed with a grade of an "S" (Satisfactory Progress) to move forward to Thesis Studio.

ARCH 5017: Thesis Studio

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: ARCH 5015 and ARCH 5016

Design solutions must demonstrate Ability to produce evidence to meet and exceed applicable NAAB criteria set by the Faculty. Thesis Coordinators uphold thesis procedures, standards and pedagogical mechanics keeping in view applicable NAAB student performance criteria [learning outcomes], values, principles and expectations of the Architecture Faculty in line with the vision and mission of the Arch Program and the University. Thesis Projects must follow the approved design proposal and be properly documented according to the approved thesis book layout, structure and table of contents. Thesis Project Book must be approved by student's Committee and Thesis Coordinator to be acceptable for publication. Thesis requirements will be considered incomplete without the submission of the Project Book according to the approved guidelines.

Art

ANIM 3600: Foundation Animation

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1150 and ART 2550

This course is an introduction to contemporary animation. Course content focuses on frame-to-frame animation as well as 2-dimensional rigged animation techniques. Students will create unique animations using industry standard time-based media computer applications.

ANIM 3620: Storyboarding & Composition

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1150

This course is an introduction to the use and creation of storyboards for animation. Students will interpret narratives including their own material into functional sequential art. Students will explore both traditional and digital media in the course.

ANIM 3630: Environments for Animation

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3160

This course focuses on the basic design and creation of 2D environments for animation. Students will explore both traditional and digital media in the course.

ANIM 3640: Character Development

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550 and ART 3150

Students will apply their drawing skills and knowledge of the figure to create original characters

designed for applied 2D animation techniques.

ANIM 3650: Digital Animation Production I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ANIM 3600

This course focuses on using industry standard digital animation production software. Students will explore the pipeline nature of the software and the many roles involved with a professional animation production.

ANIM 3660: Digital Animation Production II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ANIM 3650

This course is an advanced approach on understanding and operating industry standard digital animation production software. Students will focus on particular roles and tasks including 2D animation and compositing. Also, students will work in a team environment to create an animation short.

ANIM 4630: 3D Animation Modeling

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

This course introduces the student to the use of industry standard 3D computer graphic software. Practical application of the software will include creating environmental imagery, props, and characters.

ANIM 4650: Digital Animation Studio

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of Instructor

Students will pursue selected topics in animation of an advanced nature, which may include independent student research.

ANIM 4660: Senior Animation Reel

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of an advisor and instructor.

This graduating senior capstone course focuses on the development of a student resume and professional animation reel showcasing work designed for the animation industry. There is also a research component for current job market demands & requirements, as well as graduate school options. The animation reel will demonstrate work that represents an individual style and a high level of conceptual abilities and professionalism.

ART 1100: Two-Dimensional Design and Color Theory

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of all Learning Support English requirements, including ENGL 1101, if required.

Elements of art and the principles of two-dimensional design, with emphasis on line, shape, texture, space, value elements of color theory executed through conventional methods.

ART 1107: Art in Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This interactive course is an introduction to the role of visual art in global societies, from antiquity through the present day. It examines various media within their social, historical, and intellectual contexts; explores a variety of art-historical, art-critical, and theoretical issues; and facilitates critical and analytical thinking. It also teaches students how to analyze the basic elements of art and design and how to visit a museum. (Visits to some venues may require paid admission.)

ART 1150: Drawing I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Drawing, using a variety of media and techniques, including work from figure, still-life and landscape. Some drawing with digital media.

ART 1200: Three-Dimensional Design

3 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100 and ART 1150

An introductory course in exploring, evaluating and resolving concepts related to basic three-dimensional design problems. Exercises include three-dimensional drawing techniques and model building. Emphasis is placed on the application of elements and design and principles of organization as well as form and space relationships using a variety of media.

ART 2150: Drawing II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100, ART 1150, and full admission into the art program.

Pictorial composition with studies in use of line, form, value and texture, including work from nature, the life model and setups.

ART 2290: Special Topics in Art

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected special topics of interest to faculty and beginning students interested in art.

ART 2550: Computer Applications in Art

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100, and ART 1150

The study of computer technology employed by professional artists. Digital presentation and documentation techniques covered. Limited work with art production software.

ART 2990: Concept, Creativity, and Studio Practice

2 Class Hours 4 Laboratory Hours 3 Credit Hours

This is a studio art foundation course and is a prerequisite for the BFA majors in all concentrations. It is designed as an introduction to the studio practices and conceptual processes of a creative artist.

ART 301 I: Typography I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

The focus of this course is on the history of graphic design with emphasis on the exploration and study of typography as a visual communication tool. The course will include an understanding and working knowledge of the grid as a visual design tool for typographic page layout.

ART 3015: Electronic Illustration

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

The focus of this course is the execution of quality illustrations. The blending of traditional and electronic images will be influenced and strengthened by the history of illustration. The illustrations will be adapted for print and web using advanced conceptual skills and digital techniques. The strong development of form and color and the elements and principles of design will be stressed.

ART 3020: Typography II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 301 I and ART 2990 -may also be taken concurrently

The focus of this course is on concept-based problem solving with emphasis on the appropriate use of type and form. Students will explore historical periods of typography to include well-known designers and design trends. Symbolism and corporate identity design will also be incorporated.

ART 302 I: Publication Design

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3020

The focus of this course is on page layout and web design. Two and four-color print publications (magazines, newsletters, brochures, etc.) will be covered, with emphasis on the ability to employ visual structural systems (grids), to produce a cohesive group of layouts in a variety of document formats. Web design will be introduced as another publishing medium.

ART 3022: Pre-Press

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3020 and admission into the graphic communication concentration.

The focus of this course is on digital image manipulation and object oriented-graphics. This will ensure that students have a thorough understanding of digital file formats and their application to page layout. Emphasis will be on production terminology according to the principles of industry standard digital pre-press. Image editing and manipulation for the web will also be covered.

ART 3120: Ceramics I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1200 and full admission into the art program.

Basic processes in ceramics, including pinch pot, coil and slab method of building, wheel throwing and an introduction to ceramic decoration with engobes, glazes and textures.

ART 3150: Figure Drawing

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150

Intensive study of the human figure; action, structure, volume, design and expressive potentialities from a variety of models, using a variety of media. Some portraiture.

ART 3160: Painting I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100 and ART 1150

Painting with various media emphasizing organizational structure, technical considerations and abstract relationships.

ART 3260: Painting II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150 and ART 3160; ART 2990 (may also be taken concurrently).

Painting with acrylics and/or oils emphasizing organizational structure, abstract relationships and technical considerations.

ART 3265: Aqueous Media

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150 and ART 3160

This course introduces painting in a variety of traditional and non-traditional water-based media such as watercolor, ink, and gouache. Both technical mastery and creative experimentation are emphasized.

ART 3300: Sculpture I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1200 and ART 2150

An introduction to selected sculptural processes using a variety of media.

ART 3310: Sculpture II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3300; ART 2990 (may also be taken concurrently).

In-depth exploration of selected sculpture processes, creative and aesthetic concepts related to the 3-dimensional form.

ART 3320: Jewelry and Small Metals I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1200

This course is an introduction to basic small metals and jewelry techniques including fabrications, forming, and finishing. It emphasizes advanced design skills and critical analysis, as well as exposure to historical and contemporary works.

ART 3325: Jewelry and Small Metals II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3320

This course will explore various formats, techniques, and materials necessary to gain an understanding of utilitarian objects and holloware. Techniques will include tool making, repoussage, and forging, while reflecting the students' individual visual and conceptual interests.

ART 3360: Wheel Throwing

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3120

In this course students will gain a comprehensive understanding of pottery creation using the wheel throwing technique and the various pottery decoration techniques.

ART 3380: Mold Making and Slipcasting

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3120

In this course students will develop an understanding of plaster mold making and the slip casting process for the creation of ceramic sculpture and pottery forms.

ART 3396: Cooperative Study

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of coordinator of cooperative educational internships (Career Services).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

ART 3398: Art Internship

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the department chair.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

ART 3400: Digital Photography

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

This course introduces digital photography and its basic practices for fine art applications. It explores various methods of photographic image-making in contemporary art and its interpretations. Assignments and class critiques will emphasize the development of a visual vocabulary and explore the possibilities of photography as a visual arts medium.

ART 3410: Film Photography

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100 and acceptance into the art major.

This course introduces students to the basic manual functions of film cameras and darkroom processing and printing techniques. Students will use black-and-white film and darkroom paper to produce traditional photographic prints. The course teaches a refinement of photographic techniques and visual skills with an emphasis on aesthetics.

ART 3420: Lighting for Photography and Video

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3410 and ART 3400

This course teaches students photographic studio and location lighting techniques and introduces the large-format 4x5 camera. Students will apply increasing understanding of darkroom and digital practices to large-format analog and digital printing. Knowledge of contemporary theory and criticism and its application to contemporary photography is incorporated.

ART 3430: Introduction to Video

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Acceptance into Art Program, ART 2550 and ART 3410

This course covers selected topics in video art, which include the use of video shooting and editing practices for the advancement of students own personal artwork and style.

ART 3500: Printmaking I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150

Students learn basic printmaking processes, techniques, and professional craftsmanship.

ART 3510: Printmaking II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3500; ART 2990 (may also be taken concurrently).

Advanced exploration of conventional and experimental printmaking techniques including but not limited to the relief, intaglio and stencil processes.

ART 3520: Planographic Techniques I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3510

This course examines techniques and contemporary applications of planographic printmaking in silkscreen printing and lithography. The emphasis is on experimentation, design, drawing, and multicolor printing. Topics include hand-cut paper, and film and photographic stencils in silkscreen and hand-drawn aluminum and digital polyester lithographic techniques. Classes include discussion and critique of print content and concept together with the technical skills involved in each phase of the planographic processes.

ART 3550: Bookarts, Letterpress and Papermaking

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150

This course introduces the history, materials, and techniques associated with book arts, letterpress and paper making.

ART 3600: Illustration I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100, ART 1150, ART 1200, ART 2550, ART 2990, and ART 2150

This course will focus on sketches, revisions, research and final image development. Subjects covered will be methods and sources for research and the sketch as a research and presentation tool.

ART 3610: Illustration II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3600

The course focuses on the Principles of Visual Communication: choice of subjects, procedures, and the practice of illustration. Visualizing the text will be the primary emphasis for this course, in addition to exploration of ideas, events, and personalities. This will involve creating illustrations for various publishing forms.

ART 3705: Sequential Art I

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 1100, ART 1150, ART 1200, ART 2550, ART 2990, and ART 2150

An introduction to the art of comics. The art of making effective, strong and original layouts is emphasized in this course. Students acquire a basic understanding of the history of the medium current trends, orthodox and experimental narrative techniques that are possible.

ART 3715: Sequential Art II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ART 3705

This class explores the formal underpinnings of comics and provides an overview of tools and techniques utilized in the creation of sequential art.

ART 3990: Art as a Public Profession

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2990

This course introduces the art student to a variety of artistic fields and endeavors which provide a range of income-generating possibilities for the professional artist. With a special focus on art in public places, the course will guide the student through the specifics of preparing, locating, and applying for public art commissions. The course will also look at the establishing artistic relationships with art galleries, museums, and art centers, as well as preparation for the realm of self-employment.

ART 4021: Advertising and Packaging

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3021

The focus of this course is to explore the role of advertising and packaging as part of the graphic design discipline. Emphasis will be on advertising campaign strategies and tactics from a historical perspective, package design solutions targeted to marketing objectives, media realities and display aesthetics. The history and the unique positioning of advertising and packaging will be stressed.

ART 4022: Web Design for Artists

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

This course provides students with the foundations for website design using industry standard web-editing applications. The emphasis will be on student-centered digital portfolio projects of professional quality. The students will learn methods for conceptualizing, designing, producing, and web publishing. Effective visual design, usability, web content organization and the processes of website development will also be covered.

Notes: Admission to the Art Program required.

ART 4023: Interactive Media Design

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

This course provides students with the foundations for interactive media design using current industry software applications. It emphasizes the creation and delivery of basic interactive content for current interactive environments, while exploring the features and capabilities of various software applications. Students are expected to demonstrate a high level of technical and creative mastery in their final projects, along with creating successful user experiences.

ART 4024: Motion Graphics

2 Class Hours 4 Laboratory Hours 3 Credit Hours

This course provides the student with the foundations for motion graphics and digital video using current industry applications. The emphasis is on learning the history, theory, principles, and elements of motion graphic design and the process of motion graphic creation. A broad range of themes, concepts, digital animation, and current technologies are discussed.

ART 4030: Design Practicum

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3022 and ART 4022; ART 4021 (may also be taken concurrently).

This course focuses on the integration of the accumulated skills and knowledge obtained and cultivated while in the graphic communication concentration. Emphasis is on strategic accuracy, the compelling power of the concept, and the refinement of the art direction, along with the ability to create persuasive and effective design presentations. The course includes site visits and guest speakers from the industry geared towards students' exposure to the professional workplace.

ART 4035: Concept Art

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ART 3160, or instructor approval

This course examines the unique considerations involved in the creation of concept art. Character and environment design will be explored. Traditional and digital mediums will be considered.

ART 4150: Advanced Study in Drawing

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and admission to the painting and drawing concentration.

Selected topics in drawing of an advanced nature which may include independent student research.

Notes: Repeatable four times for credit.

ART 4255: Advanced Study of the Figure

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ART 3160, or instructor approval

Detailed study of the human figure as a subject in art, including drawing and painting from the live model. Portraiture will be considered in addition to the structure and design potential of the figure.

Notes: May be repeated up to four times for credit.

ART 4265: Advanced Study in Painting

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3260 and admission to the painting and drawing concentration.

Selected topics in painting of an advanced nature which may include independent student research.

Notes: Repeatable four times for credit.

ART 4310: Advanced Study in Sculpture

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3310 and admission to the sculpture concentration.

Selected topics in sculpture of an advanced nature, which may include independent student research.

Notes: Repeatable for credit four times.

ART 4360: Advanced Study in Ceramics

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3360 and admission to the ceramics concentration.

Selected topics in ceramics of an advanced nature, which may include independent student research.

Notes: Repeatable for credit four times.

ART 4400: Directed Study in Art

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects.

Notes: Can be used in upper-level course requirements only twice with no more than 3 hours credit given each time

ART 4410: Advanced Study in Photography

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3410 and admission to the photography concentration.

Selected topics in photography of an advanced nature, which may include independent student research.

Notes: Repeatable for credit four times.

ART 4420: Alternative Photographic Processes

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3400 and ART 3410

This course covers advanced level course designed around selected topics in traditional and historic photographic techniques.

ART 4430: Digital Post-Production Processes

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550, ART 3400, ART 3410, and ART 3430

This advanced level course furthers students' understandings and capabilities in post-production workflows, software, techniques, and technical applications with regard to photography and video.

ART 4440: Large Format Photography

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3400, ART 3410

This course teaches students the fundamentals about photographic techniques in relation to the use of the large format camera types. This class further develops students' understanding of darkroom and digital practices and their application to large format analog and digital printing.

ART 4490: Special Topics and Art Seminar

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected special topics and seminars of interest to faculty and upper-level students interested in art.

ART 4510: Advanced Study in Printmaking

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3510 and admission to the printmaking concentration.

Selected topics in printmaking of an advanced nature, which may include independent student research.

Notes: Repeatable for credit four times.

ART 4520: Planographic Techniques II

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3520

This course examines techniques and contemporary applications of planographic printmaking in silkscreen printing and lithography. The emphasis is on experimentation, design, drawing, and multicolor printing. Topics include hand-cut paper, and film and photographic stencils in silkscreen and hand-drawn aluminum and digital polyester lithographic techniques. Classes include discussion and critique of print content and concept together with the technical skills involved in each phase of the planographic processes.

ART 4600: Advanced Illustration

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3610

The ability to bring a creative project to a full and successful level of finish is often neglected in the academic environment but is an essential professional skill. This course requires that students meet goals they set for themselves through individualized projects, but that they meet them fully with the highest degree of resolution and polish.

ART 4610: The Visual Essay

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3610, ART 3150, ART 3160, and ART 4255

This course is an introduction to the artist as a visual journalist, documenting the world that surrounds us through on-the-spot drawings and paintings.

ART 4620: Storytelling and Myth-Making

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3610, ART 3150, and ART 3160

This course is a discussion and related narrative projects course that will help the student discover the value of the artist's role in society as a story-teller and myth-maker.

ART 4630: Sketchbook Narrative

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3600, ART 3150 and ART 3160

This course exercises all of the skills that lead to successful visual communication in a setting where the students feel comfortable. The sketchbook is an environment where students can work on idea development that fulfills strict objectives, but allows for risk. The projects help students become confident in developing their process and to apply it to very specific commercial and editorial concerns. The projects, along with class discussion, allow students to play with media and exercise modes of problem solving while being encouraged to be visually self-indulgent.

ART 4700: Advanced Sequential Art

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3715

Students are expected to demonstrate knowledge of all the basic facets of visual storytelling. This class explores advanced aspects of drawing one's own narratives in long-form sequential art.

ART 4710: Narrative Arts

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ART 3705

This course will explore the form of visual literature known as "comics" or "comic art". Studying comics and their relationship to popular culture will be a focus within the realm of artistic and literary criticism.

ART 4720: Comic Storytelling

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ANIM 3620

This class focuses on helping students develop their comic storytelling techniques by illuminating the relationship between text and image on the comic page, ideas of plot versus theme, the use of composition and symbolism in the comic panel, and how all of these correlations work together to serve the goal of the artist in communicating their personal narrative vision in the comic form.

ART 4735: Experimental Comics

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3150 and ART 3705

This course rigorously combines theory and practice, exploring how different genres (e.g. poem, short story, novel, journalism, film) can be adapted into a sequential art format.

ART 4980: Senior Portfolio and Applied Project

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the advisor and instructor.

This graduating senior capstone course focuses on the development of a student resume and professional portfolio showcasing work designed for varied platforms. There is also a research component for current job market demands & requirements, as well as graduate school options. The design pieces will demonstrate work that represents an individual style and a high level of conceptual abilities and professionalism.

ART 4990: Senior Art Seminar and Exhibition

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the advisor and instructor.

This graduating senior capstone course focuses on the development of a professional graduation exhibition, resume and professional portfolios. Career and graduate school research are course

components. Selected topics dealing with professional artists and exhibition practices, culminating with the exhibition of participants' work. The exhibition pieces will demonstrate work that represents an individual style and a high level of conceptual abilities and professionalism.

Art Education

ARED 3155: Art Education Life Drawing

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Art majors: ART 2150 and ART 2990

This course is an advanced study of drawing concentrating on the subject matter of the human figure. Each of the approximately 30 sessions will consist of lectures on anatomy with in-class studio work, group critiques and tests of knowledge of subject matter. Media used in this class will progress from graphite and chalks to other media as chosen by the student.

ARED 3302: Teaching, Learning and Development in Visual Arts

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Art and Design.

This course is designed to help students gain an understanding of the current teaching issues in the field of art education and to understand development and learning in the P-12 art room. Creative, artistic, and perceptual development will be presented through an examination of the characteristics of diverse learners and an emphasis on the physical, psychosocial-emotional, and cognitive development of P-12 learners.

Notes: This course will include 40 field placement hours.

ARED 3304: Teaching Art History, Criticism and Aesthetics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ART 2550

This course is designed to prepare students to develop strategies for teaching art history, art criticism, and aesthetics in the P-12 art classroom. Students will develop materials appropriate for classroom instruction that stimulate and assess art learning. In addition, this course meets the required learning for Fine Arts Georgia Performance Standards and National Standards for Visual Arts.

ARED 3306: Materials, Methods and Management for Teaching Art (P-12)

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2550

This course is an intensive laboratory experience using the media and materials for teaching art. Intended for prospective art specialists teaching grades P through 12. Methods and strategies for teaching various art media and processes will be covered. Classroom management strategies are integrated into teaching methods.

Notes: This course will include 40 field placement hours. Proof of professional liability insurance required prior to receiving a school placement.

ARED 3308: Special Populations in Art Education

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ARED 3306 and admission to Teacher Education.

This course focuses on content knowledge and applications for art educators teaching students with exceptionalities. Content includes current legal, educational, and therapeutic issues as they relate to teaching art to special populations. Distinctions between art education and art therapy are discussed.

Notes: This course includes 48 field experience hours. Proof of professional liability insurance is required prior to receiving a school placement.

ARED 3309: Visual Art for Early & Middle Grades

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to Teacher Education.

A course designed for preparing elementary school educators to integrate meaningful art experiences into the classroom. Prospective elementary classroom educators develop basic concepts, skills, methods of instruction, and teaching competencies in the specific area of the visual arts.

ARED 3310: Multiculturalism & Crossculturalism in Art Education

1 Class Hours 2 Laboratory Hours 2 Credit Hours

Prerequisite: EDUC 2201, EDUC 2204

Corequisite: ARED 3302.

This course involves an exposure to art education literature that focuses on diversity issues in historical and contemporary contexts (including ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation and geography). Theories and models of contemporary art education practice are explored, which strengthen the respect proper to all classroom diversities. Students participate in field experience activities in schools, museums and other community settings.

ARED 3398: Internship

1-12 Credit Hours

Prerequisite: Approval of the instructor and department chair.

A supervised, credit-earning work experience of one academic semester with an approved school, museum or educational organization involved in the visual arts.

ARED 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects. The content of the directed study will be determined jointly by the instructor and the student.

ARED 4410: Intercultural Curriculum Model

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Art and Design.

This course is designed to prepare prospective art teachers to be able to plan and organize effective art programs and curricula, to explore innovative and exemplary art programs and materials, to assess art learning, and to develop a rationale and strategy for articulating and promoting a quality art program. In addition, this course involves an exposure to art education literature that focuses on diversity issues in historical and contemporary contexts (including ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geography). Theories and models of contemporary art education practice are explored. Students also participate in a clinical practice activity in a partner school, involving the cooperative creation, delivery and assessment of an original art curriculum unit.

Notes: Proof of liability insurance is required prior to school placement.

ARED 4425: Teaching of Art: Practicum

0 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: ARED 4410 or ARED 3306

A comprehensive art education model-based course combining curriculum design and instructional methods with in-depth field experience in the public schools. Students will both observe and teach in a classroom setting. Campus seminars will relate the field experiences to current instructional theory. Admission to Teacher Education. Proof of liability insurance required prior to receiving a school placement.

ARED 4490: Special Topics in Art Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected special topics and seminars of interest to faculty and upper-level students interested in art education.

ARED 4650: Yearlong Placement I

0 Class Hours 12 Laboratory Hours 3 Credit Hours

Prerequisite: Pre-service certificate, admission to Yearlong Experience

Corequisite: EDUC 4610

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in art education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities as English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

Notes: Proof of liability insurance is required.

ARED 4660: Yearlong Clinical Experience II

0 Class Hours 36 Laboratory Hours 9 Credit Hours

Prerequisite: GACE eligibility, ARED 4650

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in art education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of content pedagogy assessment.

Notes: Proof of liability insurance is required.

Art History

ARH 2750: Ancient through Medieval Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This lecture/discussion course surveys the art and architecture of the western world from prehistory through the middle ages. It includes an introduction to parallel developments in Asia, Africa, and the Americas.

ARH 2850: Renaissance through Modern Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This is a lecture/discussion course in which students study major developments and trends in world art from the fifteenth through the twentieth centuries CE. It includes an introduction to parallel developments in Asia, Africa, and the Americas.

ARH 3000: Asian Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ARH 2750 or ARH 2850) and ENGL 1102

This lecture/discussion course surveys the art of India and Southeast Asia, China, Japan, and Korea from prehistory to the present. Students study the chronological developments of the major styles of painting, sculpture, architecture, and decorative arts from these regions. The course discusses artistic achievements and aesthetics, and it explores how cultural, political, religious, and social climates have shaped the visual arts in Asia from the beginnings of its civilization to the 21st century.

ARH 3100: African Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course surveys select tradition-based African arts from the pre-colonial period up until the present day. Emphasis is placed on the study of key monuments and media within a regional and chronological framework, but also on the cultural principles and concepts reflected in canonical African art. The interrelation of art with ritual, religious belief, gender, politics, and history will be continuing themes. Primary media discussed include architecture, sculpture, masquerade, body adornments, and textiles.

ARH 3150: Islamic Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course is a survey of visual culture from the Islamic world, beginning with its origins in the seventh century. It examines a range of media, including ceramics, metalwork, textiles, arts of the book, sculpture, and architecture. It considers artistic production and consumption in a variety of regions and social contexts in the Middle East, Europe, Africa, and Asia. And it explores issues such as the definition of Islamic art, its study in the West, and Orientalism.

ARH 3200: Ancient American Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course surveys the arts of select Mesoamerica and Andean cultures up to the colonial period. Monuments are studied in a chronological framework with emphasis on the principles and concepts that underlie the art. Style, technique, and media are considered, as well as the varied contexts of art production and reception and the interrelation of art with religion, statecraft, gender, and nature. Sculpture, architecture, textiles, earthworks, metals, and ceramics are the principal art media under consideration.

ARH 3240: Native North American Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course surveys key monuments and cultural principles in the arts of select native North American cultures from the pre-contact period until the present day. Architecture, earthworks, terracotta and stone sculpture, textiles, ceramics, and body arts are studied within a regional and chronological framework. The interrelations of art with ritual, religious belief, myth, nature, gender, politics, and history will be continuing themes.

ARH 3250: Latin American Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

A study of Latin-American art from the colonial period to the present. Students in this course study art of the Spanish and Portuguese colonial period, art of the nineteenth century following independence, and major developments and trends in modern painting, sculpture, and architecture since 1900.

ARH 3300: Ancient Egyptian and Nubian Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750

This course surveys the art and architecture of ancient Egypt and Nubia. Monuments are studied in a chronological framework with emphasis on the principles and concepts that underlie art. Style, technique and media are considered, as well as the varied contexts of art production and reception and

the interrelation of art with religion, myth, social life, and history. Architecture, sculpture, and body modification and adornments are the principle media considered.

ARH 3320: Ancient Near Eastern Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course is a survey of the art and archaeology of the ancient Near East (now the Middle East), from the 4th millennium BCE through the 7th century CE. It examines a range of media in their social, political, and intellectual contexts. It also explores issues such as cultural interaction; political art of ancient empires; gender, ethnicity, and identity; the definition of the "Near East"; Biblical archaeology; and heritage management (especially in times of conflict).

ARH 3350: Greek Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750 and ENGL 1102

This course is a survey of ancient Greek visual culture through the Hellenistic period. It examines a range of media in their social, political, and intellectual contexts, exploring such issues as connoisseurship; portraiture; commemorative art; architecture and urban development; cross-cultural exchange; gender, ethnicity, and identity; and ancient art history and criticism. It incorporates new archaeological discoveries as much as possible, and it encourages students to visit museums.

ARH 3370: Roman Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750

This course is a survey of the art and architecture of Republican and Imperial Rome, from the first century B.C.E. to the fourth century C.E. It examines a range of media (e.g., coins, pottery, mosaics, sculpture, painting, and architecture) within their social contexts, dealing with such issues as the viewer and viewing; portraiture; gender; ethnicity; social status; domestic space; and urban development. This course incorporates new archaeological discoveries as much as possible, and it encourages students to visit museums.

ARH 3398: Internship

1-12 Credit Hours

Prerequisite: A 2.5 GPA and permission of the department chair.

A supervised work experience of one academic semester with a previously approved gallery, museum, or private government agency.

ARH 3400: Medieval Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2750

This course is a survey of medieval art and architecture in Europe and the eastern Mediterranean, from the fourth through fourteenth centuries. It examines a range of media within their social, political, and

intellectual contexts, and it discusses such issues as the interaction among the visual cultures of Christianity, Judaism, and Islam; the art of the Crusades; the relationship between word and image; pilgrimage and monasticism; urban development; and gender, ethnicity, and social status.

ARH 3500: Italian Renaissance Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

A survey of art and architecture in Italy from the early fourteenth century to the mid-sixteenth century. The veneration of classical antiquity and the development of naturalistic representation are examined. Issues of patronage, artists' training, and technology are also addressed.

ARH 3600: Baroque Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

A survey of major movements, artists and themes in seventeenth- and eighteenth-century art and architecture in Europe and the Americas.

ARH 3700: Nineteenth-Century Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

This course is a survey of major developments and trends in nineteenth-century painting, sculpture, and architecture. It reviews major aesthetic theories and non-western art forms that shaped nineteenth-century art.

ARH 3750: History of American Art and Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

This course is a survey of the styles and movements of art and architecture in the United States from colonial times to present.

ARH 3840: History of Illustration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 and ARH 2850

This is a lecture/discussion course in which students study major developments and trends in the art of illustration as a vehicle for telling of stories from the Paleolithic period to the present.

ARH 3850: Art Since 1900

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Art majors: ARH 2850 and ENGL 1102. Non art majors: ENGL 1102 and permission of the instructor.

This is a lecture/discussion course in which students study major developments and trends in visual arts

since 1900. Students become familiar with the dominant artistic practices and critical theories that defined "modernism," and with the social, political, and cultural changes that initiated the shift in visual art from modernism to post-modernism.

ARH 3990: Research Methods in Art History

3 Class Hours 3 Credit Hours

Prerequisite: ENGL 1102 and ARH 2750 and ARH 2850

This is a lecture/discussion course in which students are introduced to the main methodologies of art historical research and learn to apply them to the analysis of artistic practice. Lectures and discussions focus on how works and styles of art are looked at and studied, rather than the meaning/significance of the works or styles of art themselves. Students become familiar with the contributions of the most important art historians who have shaped the discipline of art history. During the semester we examine traditional as well as postmodern methodologies including formalism, biography, iconology, Marxism and feminist deconstruction, psychoanalytic and semiotic approaches (including structuralism and post-structuralism).

ARH 4000: Historical Studio Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and (ART 1100 or ART 1150)

This course examines one of four art historical periods by combining lecture/discussion with practical applications. The first week explores the character of the period as it developed according to historical, social, cultural and artistic trends, while the second week involves the practical application of painting techniques that were developed in the Italian Renaissance and applied by academics of art until the beginning of the twentieth century.

Notes: May be repeated for credit when topics vary; BFA students may use this course for only one of their 3000-4000 level art history requirements.

ARH 4150: African-American Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850

An introduction to African-American art designed to explore the diverse aesthetic expressions of African-American artists from colonial times to the present. Through an examination of aspects of the religious, social, cultural and creative history of Black Americans, students will develop an understanding of the wealth of contributions made by people of African descent to the development of American art and culture.

ARH 4400: Directed Study

1-3 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects.

Notes: Can be used in upper-level course requirements only twice with no more than 3 hours credit given each time.

ARH 4490: Special Topics in Art History

1-3 Credit Hours

Prerequisite: ARH 2850, ENGL 1102, and approval of the instructor and department chair.

Selected special topics and seminars of interest to faculty and upper-level students interested in art history.

ARH 4500: Women in Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850

This course introduces students to the history of women in the visual arts, particularly as artists, but also as subjects, focusing on western Europe and the Americas. It also considers the evolution of feminism and its applications in art history.

ARH 4700: Victorian Art and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

This course is in a seminar format. Unlike the straightforward lecture approach of survey courses, a seminar is a forum for open discussion of pertinent topics. The Victorian Period covers the reign of Queen Victoria of England, who sat on the throne from 1837 to 1901. An initial overview will touch on several different topics that define the Victorian era, and subsequent classes will consist of student presentations and in-depth class discussions based on assigned readings.

ARH 4750: American Landscape Painting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850 and ENGL 1102

This course consists of an in-depth exploration of the phenomenon of American landscape painting. It traces the development of this discipline in the United States and explores the artistic, social, political and historical implications of the images within the context of American Romanticism, Impressionism and Realism from its beginnings in the early eighteenth century to the beginning of the twentieth century.

ARH 4820: History of Printmaking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 and ARH 2850

This course introduces students to the rich and varied art history of prints in relief, intaglio, serigraphy, lithography and other graphic media. From the early Renaissance in Europe, to Edo Japan, to the 21st century, a variety of major artists have engaged in this challenging art form. This course covers the evolution of print processes and meanings through the centuries.

ARH 4840: History of Graphic Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This is a lecture/discussion course in which students will study the major developments in graphic design from the Industrial Revolution to the present. This course will familiarize students with major trends in European and American design, with a particular focus on graphic design in the context of art history and the history of material culture. Organized as a survey course, the class will focus on key examples of styles and innovations in graphic design, as they developed in relationship to their times and places. Students will recognize similarities and differences between the work of significant designers, and contemporary developments in modernist visual art, and the theoretical underpinnings of major design movements.

ARH 4870: History of Photography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850

A selective survey of nineteenth and twentieth century photography, primarily in Europe and America, emphasizing photography's development as an artistic medium. Focus is on major practitioners of the medium, and on photography's relationship to historical events, psychology, sociology and the development of art and architecture.

ARH 4900: Contemporary Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ARH 2850

This course begins with a consideration of the general reaction to Western Modernism that began in visual art after the 1950s and has come to be known as the period of "Postmodernism," and proceeds to examine issues that define art and challenge artists today. Themes include but are not limited to originality, appropriation, deconstruction, identity politics, post-feminism, commodity critique, installation and performance, digital media, activism and globalism. Students become familiar with the key artists and critics whose ideas informed postmodernism and continue to inform artistic practice today, and the class examines art and critical theory associated with major themes that have emerged in recent art locally, nationally, and globally.

ARH 4990: Senior Capstone Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ART 3990 and ENGL 1102; declared major in art history; senior status.

This senior capstone course completes the curriculum of the art history major by requiring students to write a substantial paper and to give a presentation.

Asian Studies

ASIA 1102: Introduction to Asian Cultures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required.

Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course provides an overview of key concepts, themes, strategies, and methods in Asian Studies. This course focuses on traditional and contemporary cultures of East and South Asia, especially those of Greater China, Japan, Korea and India. The cultural investigation of Asia is infused with the historical, geographical, economical, political, and religious study of this region. This course also explores the identities of people in Asia and Asian Americans.

ASIA 300I: Understanding Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This is the introductory course to KSU's Asian Studies Program. The course uses an interdisciplinary approach to understand Asia's ever-changing contexts. With emphasis on greater China, India, Japan, Korea, and Southeast Asia, the course provides the foundation for further studies of Asia including an overview of the region, connecting past influences to the present. Students examine the origins and development of Asian civilizations from the aspects of geography, people, society, history, philosophy, religion, politics, economy, literature and arts.

ASIA 3309: Survey of Chinese Literature and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

ASIA 3309, cross-listed as FL 3309, is a survey of Chinese literature and culture, examining major works and literary and artistic movements as well as cultural issues. Readings and discussion in English; some readings in the original for Chinese language students.

ASIA 3340: Contemporary South Asian Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2110

This course explores South Asian experiences by examining diverse aesthetic and cultural perspectives from 20th and 21st century diasporic South Asian literature. In order to familiarize students with the diverse South Asian population, this course introduces students to a variety of South Asian experiences through literary works from diasporic writers in this demographic. Through critical reading and analysis, reflection, discussion, and research, students discover how similar the South Asian experience is to other familiar communities.

ASIA 3355: Cultures and Capitalisms in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102 and ENGL 1102

This course compares and contrasts various forms of capitalisms and cultures in Asia to understand the dynamics of society and political life. This course enables students to develop a global perspective on critical issues that concern policymakers, business-strategists, development-workers, and academics from an anthropological perspective. Students compare and contrast various forms of capitalism in Asia from an anthropological vantage point for understanding dynamics of society and political life in Asia.

ASIA 3670: Survey of Asian Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a lecture/discussion course to survey the art of India and Southeast Asia, China, Japan, and Korea from prehistory to the present. Students in this course study the chronological developments of the major styles of painting, sculpture, architecture, and decorative arts from these regions. This course highlights important examples of works of art to discuss the artistic achievements and the aesthetics of these regions, and to explore how cultural, political, religious, and social climates have shaped the visual arts in Asia from the beginnings of its civilization to the 21st century.

ASIA 3760: Asian American Cultural Identities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This interdisciplinary course provides students opportunities to examine cultural identity issues of Asian Americans, the fastest growing ethnic minority group in the US. Through a variety of interdisciplinary learning materials and activities, students will gain understanding and appreciation of the complex concept "Asian Americans."

ASIA 3780: Trends in Asian Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course focuses on current issues and trends in the field of Asian Studies. Some topics include Popular Culture in Asia, Pan-Asian Cinema, Gender in Asia, and Environmental Issues in Asia. This course is interdisciplinary and includes Asian content in English. Course may be repeated with a change in content.

ASIA 3950: Technology Strategy in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This is a case study course that looks at organizational approaches to the integration of technology in multiple cultures. In this course, students will look at the international high-tech mindset, from business, social, financial markets, and personal life.

ASIA 4001: Teaching English in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course provides students with knowledge of the socio-cultural issues related to the classroom in Asia. The focus of the course spans both cultural and social issues associated with classroom management in an Asian setting.

ASIA 4400: Directed Study

Variable 1-3 Credit Hours

Prerequisite: Approval of instructor and department chair prior to registration

Directed Study is a course in which a student works with a supervising faculty member to investigate a selected advanced topic not served by the existing curriculum.

ASIA 4422: Archaeology of Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ANTH 1102 or ASIA 3001 or permission of the instructor.

This course examines cultural and historical developments in Asia from approximately 10,000 BCE through 1600 CE. Students learn about the rise of complex societies, cities, and states; early economies; empires; and the role of archaeology in modern Asia. Along the way, students engage in major debates that have arisen from competing interpretations of the archaeological record.

ASIA 4435: Sociology of South Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ASIA 1102

This course examines social change and development in the South Asian societies through a historically informed analysis of social institutions in the region. Some of the key themes explored include contested histories, identity politics and nationalism, democratization, growth, poverty, and inequality. The course includes case studies from Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka, but its main focus is on India.

ASIA 4457: South Asian Politics: A Comparative Perspective

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ASIA 3001

This course is an overview of the main issues that overlay politics in Sri Lanka, Bangladesh, India, and Pakistan. It covers the common historical background and the development of political institutions across the region. The course highlights the main cleavages along which politics are organized and related political, social, and economic outcomes, including the political party system, economic development, social movements, and ethnic conflict.

ASIA 4490: Special Topics for Asian Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Selected special topics of interest to faculty and students working in Asian Studies.

ASIA 4517: Tea Cultures in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course explores the significance of tea to Asians, and demonstrates how and why tea becomes such an important social beverage in Asia. Students have the opportunity to gain a deeper understanding

and appreciation of Asian cultures and customs.

Astronomy

ASTR 1000K: Introduction to the Universe

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1111

Students will learn the history of astronomy up to the Copernican Revolution including Galileo, Kepler, and Newton. They will also explore the workings of modern telescopes and study an overview of the solar system and the search for extra-solar planets. In lab students will use planetarium simulation software to explore the concepts and methods of observational astronomy.

ASTR 1010K: Introduction to the Universe II

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1111

Students will learn the structure and life cycle of stars and the classification of galaxies. They will also explore cosmology and the early development of the universe. In lab students will use planetarium simulation software to explore the concepts and methods of observational astronomy.

Biology

BIOL 1107: Biological Principles I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Concurrent: CHEM 1211 and CHEM 1211L.

The course is an introduction to cell and molecular biology as well as molecular and population genetics. Students who successfully complete the class should be able to describe the fundamental biology of the cell, including cellular anatomy and cellular metabolic processes in both plants and animals. Students will also use molecular genetics to describe the basis for heredity and how this is expressed in populations as well as how it informs evolutionary principles.

Notes: For science majors.

BIOL 1107L: Biological Principles I Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 1107

This lab complements BIOL 1107. Students will learn how to use scientific equipment to explore the cell and molecular biology in plant and animals as well as the biochemistry of life. Students will learn about experimental design and how to generate and interpret scientific data.

BIOL 1108: Biological Principles II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (CHEM 1211 and CHEM 1211L)

This is the second course in a two-semester sequence covering the fundamental principles of biology. Students will explore the evolution and diversity of life in this course. Students will have additional focus on organismal anatomy and physiology as well as learning basic principles of ecology.

Notes: For science majors.

BIOL 1108L: Biological Principles II Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 1108

This lab corresponds with the organismal biology topics covered in BIOL 1108 lecture. Students will examine phylogenetics, organismal diversity, ecological principles, and physiology through a combination of lab observations and hypothesis-testing experiments. Students are also expected to perform a fetal pig dissection in order to explore vertebrate anatomy. Application of the methods of experimental design, data analysis, and data presentation will be a major component of this course.

BIOL 2099L: Biology Teaching Assistant

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: Greater than 60 credits with at least a 3.0 GPA

Students will have an opportunity to assist in the lab portion of a biology course. Students will learn peer-to-peer communication skills, develop a deeper mastery of biological concepts, and enhance their leadership potential as they guide other students through the learning process.

BIOL 2221: Human Anatomy & Physiology I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CHEM 1151 and CHEM 1151L) or (CHEM 1211 and CHEM 1211L)

The course begins with cellular chemistry and function, tissues, and continues through the nervous, skeletal and muscular systems. Homeostasis and structural and functional relationships will be emphasized. Primarily recommended for students interested in nursing, physical therapy, occupational therapy, exercise science, and sports management. Cannot be used for credit toward a degree in Biology.

BIOL 2221L: Human Anatomy & Physiology I Laboratory

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 2221

Basic anatomy and physiology of the skeletal, nervous, and muscular systems as well as basic histology. Structural and functional relationships will be emphasized.

BIOL 2222: Human Anatomy & Physiology II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 2221

A continuation of Biology 2221. Emphasizes homeostasis and structural and functional relationships in the study of cardiovascular, respiratory, urinary, digestive, endocrine, and reproductive systems. Primarily recommended for students interested in nursing, physical therapy and health, physical education, and sports science. Cannot be used for credit toward a degree in Biology.

BIOL 2222L: Human Anatomy & Physiology II Laboratory

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 2222 and BIOL 2221L

Concurrent: BIOL 2222

Basic anatomy and physiology of the cardiovascular, respiratory, digestive, urinary endocrine, and reproductive systems. Structural and functional relationships will be emphasized.

BIOL 2261: Fundamental Microbiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 2221 and BIOL 2221L

This course will explore basic principles and techniques of microbiology. Students will learn about the various morphologies and metabolic processes within microbes and their relationships to humans.

Notes: Primarily for nursing majors; cannot be used for credit toward a degree in Biology.

BIOL 2261L: Fundamental Microbiology Laboratory

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 2221 and BIOL 2221L

Concurrent: BIOL 2261

This course teaches the basic principles and techniques of microbiology emphasizing fundamental isolation, identification, and culture techniques.

Notes: Primarily for nursing majors. Cannot be used for credit toward a degree in Biology.

BIOL 3110L: Directed Methods

1-3 Credit Hours

Prerequisite: BIOL 1107 and BIOL 1107L and permission of the instructor.

This course will allow students to gain in-depth skills with a specific set of research methodologies through direct involvement in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

BIOL 3250K: Ecosystem Ecology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (CHEM 1211 and CHEM 1211L)

Students in ecosystem ecology will study how energy and material flows and cycles through both the living (plants, animals, microbes) and non-living (soils, atmosphere) components of natural systems. Classes and lab exercises will be used to examine the influence of biological, geological and chemical processes. Students will consider factors that alter ecosystem function including human activities, from the molecular to the global scale.

BIOL 3300: Genetics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (CHEM 1211 and CHEM 1211L)

This course presents fundamental principles and applications in genetics. Students learn how traits are inherited and to use this information in predicting and analyzing genetic outcomes. Students study nucleic acid structure, learn how DNA replicates and how genes are expressed. Mutation at the gene and chromosomal levels will be surveyed, and their effect on gene structure and function examined. Finally, students will explore various genetic methods, including pedigrees, mapping, and molecular techniques.

BIOL 3300L: Genetics Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 3300

This course is designed to reinforce principles and applications of transmission genetics, cytogenetics, and molecular genetics. Students will learn to use problem-solving, data analysis and quantitative methods to explore genetics. Exercises in molecular biology will expose students to methods of recombinant DNA technology.

BIOL 3301K: Introduction to Biotechnology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (BIOL 3300 and BIOL 3300L)

This course introduces students to the concepts, methods, and equipment currently associated with the field of biotechnology. Students learn the applications of microbes, plants, and animals in the context of food, medical, environmental, and forensic biotechnology. Students gain practical, hands-on experience with a variety of techniques commonly used in biotechnology.

BIOL 3310K: Invertebrate Zoology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (CHEM 1212 and CHEM 1212L)

This course is a survey of invertebrate animals. Students will explore the varied range of anatomical, physiological, and ecological relationships among these organisms in order to develop an understanding of evolutionary processes that brought about present-day patterns in the biodiversity of animal phyla. In lab, students will collect, observe and identify common invertebrate taxa, and relate observed adaptations of form and function to habitat.

BIOL 3315K: Vertebrate Zoology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

Students will use phylogenetic methods to explain evolutionary origins, ecological relationships, and life history traits of vertebrate organisms. In laboratories, students will identify North American vertebrates and analyze the relationship between morphology and taxonomy.

BIOL 3317: Pathophysiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (BIOL 2222 and BIOL 2222L) or BIOL 4431

Examines the biological basis of common, clinical disease states. Pathophysiology is treated as a disruption of normal homeostatic mechanisms that progresses beyond the normal compensatory capabilities of the human body.

BIOL 3320K: Plant Morphology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

In this course students will explore the evolutionary trends and relationships of the phyla of non-vascular and vascular plants, as well as a number of groups of algae. Students will examine vegetative and reproductive morphology across varied life cycles and through paleobotany. Laboratory work is closely tied to lecture material and includes examination of microscope slides as well as dissections and observations of morphological features of specimens. Students will make drawings of many of their specimens. A trip to the Atlanta Botanical Gardens is required.

BIOL 3327: Medical Genetics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BIOL 3300 or consent of the instructor.

An introduction to the principles of medical genetics and the application of these principles to human genetic disorders. Topics include inborn errors of metabolism, cytogenetic anomalies, neural tube

defects, and application of molecular genetics to the diagnosis of specific disorders. Genetic counseling procedures, prenatal options and the ethical dilemmas generated as a result of these options will also be discussed.

BIOL 3330K: Biology of the Algae

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of C or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

This course covers the physiology, ecology, systematics, and diversity of marine and freshwater algae. In particular, students will explore the role of algae in biogeochemical cycling, the evolution of photosynthesis, and ecosystem function in a changing biosphere. The course also focuses on the applied aspects of algal biology by examining their use as indicators of ecosystem health, food sources, and other social, cultural, and economic commodities. Field collections and experiments are an integral part of the course.

BIOL 3335: Natural History of Georgia

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3370

This course examines the flora, fauna, geology, and environments of selected Georgia ecoregions. Students will learn the historical and geological development of the state's major habitats and landforms, which are examined by way of two four-day, overnight field trips during the Maymester term.

BIOL 3338K: Histology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

This course is an investigation of structural and functional relationships in animal tissues. Students will learn to identify functional groups of tissues and relate them to organ functionality. In laboratory studies, students will practice the microscopic analysis of cells, tissues and organs to understand their structural organization from normal animal specimens.

BIOL 3340: Microbiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

This course is a study of prokaryotes, unicellular eukaryotes and viruses. Students will learn about the nature of microorganisms and the techniques used to study microbes. Students will explore the morphology, metabolism, growth, and genetics of various microbes.

BIOL 3340L: Microbiology Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of 'C' or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

Concurrent: BIOL 3340

This course emphasizes basic microbiology methods. Students will learn to culture, identify and quantify microorganisms. Students will also explore applications of microbiology, including food and environmental microbiology

BIOL 3341K: Advanced Microbiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3340.

This course explores microbial evolution, ecology and diversity. Students will explore infectious diseases and epidemiology to learn the applied uses of microorganisms in industry, agriculture and medicine. The laboratory exercises will help students learn the natural occurrences and processes of microbes in the environment and gene transfer in bacteria along with techniques for the isolation and identification of pathogens, and the use of microbes in industry.

BIOL 3370: Ecology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and STAT 3125

Relationships among living organisms and their environments at the individual, population, community and ecosystem level.

BIOL 3370L: Ecology Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 3370

In laboratory and field activities students will utilize inquiry-based activities that emphasize environmental sampling procedures and statistical analysis of data to explore the role of variability and uncertainty in scientific decision-making as related to ecological processes.

BIOL 3371K: Freshwater Ecology

2 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L)

Students will develop a comprehensive and integrated understanding of physical, chemical, and biological processes occurring in lakes, streams, and wetlands. Particular emphasis will be placed on the ecology of aquatic organisms and the structure and function of freshwater communities and ecosystems that they inhabit. Laboratory exercises will use the scientific method to investigate and contrast basic ecological processes operating in various systems.

BIOL 3372K: Aquatic Biodiversity

2 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3370 and BIOL 3370L or permission of the instructor

This course is an introduction to the major plant and animal taxa found in aquatic ecosystems. Students will develop field and laboratory identification and collection skills while examining major ecological and biogeographical factors influencing distribution and abundance of aquatic organisms. Notes: A series of three weekend field trips are required.

BIOL 3373K: Methods in Aquatic Ecology

2 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and STAT 3125

This course provides students experience in design and execution of studies in aquatic ecology. Students will gain experience with field and lab techniques to conduct aquatic research in various aquatic assessments and wetlands delineation. Students will learn techniques for sampling fish, aquatic invertebrates and aquatic plants as well as techniques in aquatic toxicology. Field experiences are an integral part of the course.

BIOL 3375K: Behavioral Biology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L) and (BIOL 1108 and BIOL 1108L) or comparable research methods course

Students will explore the major concepts in behavioral biology. Students will relate neurophysiology to ethology and ecology, and will include a look at the behavior of social organisms. In the laboratory, students will use a quantitative approach to test hypotheses while observing the behavior of animals.

BIOL 3380: Evolutionary Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300

Students will study the fundamental questions of evolutionary biology, and focus on how processes such as natural selection, mutation, and drift form the genetic basis of evolutionary change. Students will investigate the role that adaptation, speciation, and genome evolution have played in the diversification of Life on Earth over time. Students will explore the application of evolutionary principles, such as phylogenetic inference, to human health, disease, and conservation efforts.

BIOL 3396: Cooperative Study

Variable 1-3 Credit Hours

Prerequisite: Approval of Program Coordinator and Coordinator of Cooperative Education/ Internships (Career Services).

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry or government or a private agency. For sophomore, junior or senior

level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Can be applied to free electives only.

BIOL 3398: Practical Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of major area committee and Program Coordinator prior to registration.

This course is a supervised, credit-earning, academic experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

BIOL 3400: Drugs and Biologics: From Conception to Regulatory Approval

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and (CHEM 336I and CHEM 336IL)

This course examines the discovery and development of new pharmaceuticals and biologics. Students will learn the process of drug discovery and the role of the FDA and regulations in that process. Students will evaluate how drug entities are characterized through non-clinical testing and clinical trials.

BIOL 3410: Cell Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (BIOL 3300 and BIOL 3300L)

Modern cell biology is a unifying subject that describes the structure and function of cells in genetic, biochemical, biophysical, developmental and pathophysiological contexts. Students will learn a contemporary view of cell structure and function, including the relationship between membranes, organelles, transporters, and signaling components during the life of a cell, with an emphasis on eukaryotic systems.

BIOL 3650: Marine Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L)

Students will explore the physical and biological aspects of the marine environment and describe the impact of humans on this ecosystem. Students will utilize an ecological approach to explore marine flora and fauna.

BIOL 3700K: Ichthyology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L)

This course examines the diversity of fishes. Students will learn the anatomy, physiology, evolutionary

history, and ecology of these organisms.

BIOL 3720: Sustainability at KSU

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (BIOL 1108 and BIOL 1108L) or GEOG 1113

The course includes an in-depth survey of Sustainability efforts in the areas of campus facilities and curriculum at Kennesaw State University and is especially relevant for students with interest in the area of Environmental Studies. The course has a service-learning component in which teams of students examine aspects of KSU's sustainability activities and develop proposals to improve or enhance ongoing efforts or introduce new ones.

Notes: This course is cross-listed with ENVS 3720.

BIOL 4000: Service Learning in Biology

1-3 Credit Hours

Prerequisite: 60 hours and permission of instructor and department chair/program director.

A community activity that links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

BIOL 4100K: Molecular Genetics

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300

This course covers molecular genetics theory and practice. Students will examine gene structure and function to learn about genetic engineering and bioinformatics. Students will explore DNA structure, replication, and manipulation to understand sequencing, gene expression, and gene cloning. In the laboratory, students will create recombinant DNA, isolate and purify DNA for mapping and sequence analysis and examine the applications of real-time polymerase chain reactions.

BIOL 4110K: Global Biotechnology-Study Abroad

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300

This course combines the best of both worlds - takes students beyond the typical tourist experience and immerses them in another culture and academic setting for a period of time. Students get the opportunity to engage in activities that increase their knowledge of and appreciation for global issues, languages, history, arts, literature, geography, and diversity of another country. Students will learn about the role of biotechnology and its application in industry with a global perspective.

BIOL 4115: Parasitology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 1108 and BIOL 1108L

This course examines the biology of parasites of major medical/veterinary importance. Students will

learn how parasites are transmitted to their host(s) and the pathologies that are generated from host-parasite interactions. Students will also examine the epidemiology of parasitic infection, as well as the methods for suppressing parasites in host populations.

BIOL 4200: Industrial Microbiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3340.

This course is a detailed survey of advanced microbiological methods used in industry. Students will learn to identify bacterial and fungal microbes found in biosafety and environmental monitoring. In laboratory, students will learn to validate appropriate methods and prepare sterile media for culturing aerobic and anaerobic microbes. Students will also use quantitative methods to produce fermentation in batch and continuous cultures.

BIOL 4242K: Ecological Genetics

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L

This course encompasses the fields of ecology and genetics as they apply to population genetics and conservation and management of natural resources. Students will explore the issues pertaining to the measurement and management of genetic diversity in wild and captive populations and will learn to apply evolutionary concepts to populations and population management.

BIOL 4300K: Chromosome Preparation and Analysis

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300

Corequisite: BIOL 3327.

This extensive preparatory course is designed to give students hands-on experience with the methods used in the preparation of human chromosomes. Collection techniques, culture procedures, harvesting protocol and slide preparation will be followed by analysis and interpretation of karyotypes. Fluorescent in situ hybridization (FISH) will be performed. Array comparative genomic hybridization (aCGH) theory and practice will be discussed. Proper use of various types of microscopes and image capture and analysis by computer will be performed.

BIOL 4310L: Cytogenetics Practicum

0 Class Hours 20-40 Laboratory Hours 6-12 Credit Hours

Prerequisite: A grade of "B" or better in BIOL 4300K and a grade of "C" or better in BIOL 3327, approval by the director of the KSU Cytogenetic Technology Program.

A supervised, credit-earning work experience of two academic semesters in a clinical cytogenetics laboratory affiliated with either a university hospital or a company. The extensive clinical laboratory training such as G-banding and fluorescent in situ hybridization (FISH), and advanced techniques such as comparative genomic hybridization (aCGH) will be performed. Upon the completion of the internship, the student is eligible to sit for the ASCP certification exam.

BIOL 4322: Plant Systematics

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L)

This course explores the evolutionary relationships of land plants and how those relationships relate to modern and historic classification systems. Students learn the major orders and families of flowering plants along with the skills to identify plants to genus and species in the field and from preserved specimens. The course has a major lab and field component, and students are expected to attend two weekend field trips.

BIOL 4333: WIKIed Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BIOL 1108 and BIOL 1108L

In this course students use the internet as a dynamic, participatory and collaborative medium to create new, scientifically valid, web-based syntheses of biological concepts that may be used to disseminate information on the World Wide Web. Through this process, students learn to judge web sites, acquire a deeper understanding of biological concepts, develop skills of self-monitoring and reflection, and become more proficient in current advances in technology and communication

BIOL 4350K: Comparative Vertebrate Anatomy

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (CHEM 1211 and CHEM 1211L)

Students will explore a survey of representative vertebrates and related chordates emphasizing phylogeny and anatomical adaptations. Students will investigate evolutionary trends in the context of large-scale environmental changes that have occurred over geologic time. Using a comparative, systems-based approach, students will explore the relationships between structure and function. In the lab, students will learn to dissect selected vertebrate organisms and study anatomical adaptations among these representative models to recognize the relationships between form and function.

BIOL 4390K: Developmental Biology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 3300 and BIOL 3300L) and BIOL 3410

Students will explore the fundamental questions of developmental biology, focusing on both classical experiments and modern molecular and genetic techniques. Students will investigate how differential gene expression and cell-cell communication generate new tissue types, specify the body axes, form the nervous system, and determine sex. Students will explore the role of development in human health and disease. In the laboratory, students will conduct experiments to test hypotheses about the mechanisms of cellular differentiation and morphogenesis.

BIOL 4399: Seminar

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: BIOL 3410 and 90 credit hours or permission of the instructor.

Students will learn selected topics of current interest announced during registration.

Notes: May be taken only one time for credit.

BIOL 4400: Directed Study

1-4 Credit Hours

Prerequisite: Approval of instructor, major area committee and Biology/Physics Department Chair prior to registration.

Students will learn selected topics of an advanced nature and may include original research projects.

Notes: Up to eight hours may be applied to the major area.

BIOL 4402: Research Internship

0 Class Hours 3-12 Laboratory Hours 1-4 Credit Hours

Prerequisite: (BIOL 3300 and BIOL 3300L) and two BIOL 3000/4000 level biology lab courses; approval of the internship coordinator and Biology and Physics department chair prior to registration

This course is a supervised, credit-earning research-based experience of one academic semester with an approved business firm, private agency or government agency. The experience is academic in nature and students will learn to collect and/or manipulate scientific data to produce an academic presentation. The preparation of a research proposal prior to the experience is required.

BIOL 4411K: Stem Cell Technology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L

Stem cells offer great promise for modern medicine. This course gives students hands-on experience in handling, differentiating, analyzing and purifying stem cells in culture. Students will also gain a broad understanding of in vivo stem cells, including the developmental aspects of cellular self-renewal and tissue regeneration. This is a lab intensive course and will feature in-lab lectures, a formal written component, and in-class presentations.

BIOL 4412K: Cell and Tissue Culture

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3410

This course examines the basics of culturing eukaryotic cells, tissues, and organs in vitro. Students will learn the basic cell culture techniques and how they apply to cell lines and primary organ cultures. The application and potential of stem cells and tissue engineering will also be discussed. In laboratory, students will learn how to propagate adherent and non-adherent cell lines and have an opportunity to create primary cell and organ explants cultures. Students will also apply knowledge of aseptic

techniques to plant tissue culture applications.

BIOL 4420K: Plant Physiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L), and CHEM 3361

Plant physiology is the study of plant function. Students will learn how plants obtain, transport and utilize water, mineral nutrients, and organic molecules. Students will be introduced to mechanisms used in defense against pathogens and herbivores and learn how environment and hormones control plant growth and development. Students will examine each process at the biochemical, cellular and organismal level. Laboratory studies will introduce students to contemporary approaches used in the study of plant physiology.

BIOL 4422K: Plant Ecology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 1108 and BIOL 1108L

Students will learn aspects of physiological responses of plants to their environment, methods to determine plant population growth and plant distribution patterns, as well as interactions among plants and other organisms. They will use science as a process and learn to argue scientific points of view persuasively. Students will also learn to use classical and modern technologies to address questions in plant ecology.

BIOL 443 I: Human Physiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (CHEM 1212 and CHEM 1212L)

This course is designed to introduce biology majors to the fundamentals of mammalian physiology, with the human as the model organism. This course emphasizes the normal functioning of the human body, homeostatic mechanisms, and the relationship between form and function; however, disease states will be described at various times to illustrate how normal functions become disrupted.

BIOL 443 I L: Human Physiology Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: BIOL 443 I

In this laboratory students will learn how to measure physiological variables across systems using human and non-human models. Students will explore the principles of homeostasis across systems complementing the lecture by gathering and communicating the analysis of appropriate data from a number of experimental systems.

BIOL 4432K: Human Anatomy

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (CHEM 1211 and CHEM 1211L) and (BIOL 1108 and BIOL 1108L)

This course examines the anatomical structure of the human body, with emphasis on the relationship between form and function. Students will learn the anatomy of the human body by examining individual organ systems, both from a macroscopic and microscopic perspective.

BIOL 4440: Toxicology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (BIOL 1108 and BIOL 1108L) and CHEM 3361

This course is an introduction to the principles and mechanisms of toxicology as applied to toxicants encountered in the environment. Students will learn how toxins are absorbed, distributed, stored, and eliminated across a range of organisms. Students will also explore the transport of environmental contaminants and the characteristic of specific classes of toxicants as they relate to testing and regulation.

BIOL 4450: Team Research

1-4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L and permission of instructor.

This course is a group experience in biological research in which class members form a research team to design, perform, analyze and write up for publication a single project or group of related projects under the supervision and direction of a faculty member.

BIOL 4455: Case Studies in Forensic Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L; Recommended- CRJU 3320

This course will discuss the role and application of forensic science in criminal investigations and legal proceedings. Students will learn forensic DNA analysis and other aspects of forensic science as utilized in the modern US legal system.

BIOL 4460K: Medical Microbiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3340.

This course will explore the disease process of, the immune response to, and the prevention and treatment of the medically important Monera, Viruses, Fungi and some microscopic Protista with emphasis on emerging infections, including a laboratory experience that focuses on enhancing laboratory and investigative skills.

BIOL 4465: Immunology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L; Recommended-BIOL 3340

This course will explore current concepts of the immune system. Emphasis will be placed on the induction of the immune response, on the mechanism(s) of those responses, and on the mechanism(s) by which the immune system protects against disease. The development and the role of each of the components involved in the immune response as well as immunological applications will be discussed.

BIOL 4470: Methods in Forensic DNA Analysis

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300 and BIOL 3300L

This laboratory-intensive course will introduce students to the techniques currently used in Forensic DNA profiling by crime labs across the country. In laboratory activities students will extract and purify DNA and utilize PCR-based profiling methods. Students will also learn to interpret data and generate reports. Discussions will include the historical development of DNA profiling, and the development of new profiling methods. Legal issues associated with quality control, frequency estimates, chain of custody, and admissibility will also be explored by students in the class.

BIOL 4475: Virology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300; Recommended-BIOL 3340

This course will explore current concepts associated with the field of virology. The structure and genetic composition of viruses as well as strategies for replication and expression of viral genetic material will be explored. Mechanisms of viral pathogenesis will be presented. In addition, current methods for viral diagnostics, prevention of viral infection and treatment of infected individuals will be presented within the context of viruses of historical significance as well as newly emergent viruses of current medical concern. Novel infectious agents such as satellites, viroids and prions will also be discussed.

BIOL 4480: Food Microbiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: BIOL 3340

This course covers various aspects of food microbiology. Students will learn the source of microbial contamination during food production, processing and storage and the factors influencing microbial growth in foods. Students will explore the role of microorganisms in food spoilage, illnesses, fermentation, and preservation. In the laboratory, students will learn the methods used to isolate, enumerate, identify, or control microorganisms in food. The laboratory is an integral part of the course, allowing students to apply microbiological concepts in laboratory exercises.

BIOL 4486: Bioethics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3300, plus a minimum of 9 additional hours of 3000-4000 level Biology or Biochemistry or consent of instructor.

This course will enable the student to think more critically about some of the difficult moral problems which arise in the practice of science and from our contemporary understanding of living systems and biotechnology. Readings and discussion will focus on issues of personal decision making and public policy regarding both biomedical and environmental issues.

BIOL 4490: Special Topics in Biology

1-4 Credit Hours

Prerequisite: Varies as to topic.

Selected special or current topics of interest to faculty and students.

Notes: See semester schedule.

BIOL 4500K: Bioinformatics I

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "B" or better in BIOL 3300; a grade of "C" or better in MATH 1190; or permission of the instructor.

Concurrent: BIOL 3410

Students use the fundamental concepts of biological sequence analysis, including information flow in biological systems and use of sequence and structure databases in research and drug discovery, which are the underpinnings of the genomic revolution. Students will: assemble sequencing reads into contigs; find and annotate protein coding genes; search biological databases; perform sequence alignments; analyze the phylogenetic relationships between sequences; assess the statistical significance of assembly, search and alignment results; and predict protein structure.

BIOL 4510K: Bioinformatics II

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 4500K

This course emphasizes the principles of laboratory generation, bioinformatics and other computational analysis, and practical application of results from real-world data drawn from genomics-level research projects at KSU and elsewhere. Students will perform genome-wide association studies, assemble transcriptomes, quantitate and visualize differential expression, and analyze cellular interaction networks. Students will use data that spans and integrates many levels of biological organization, multiple 'kingdoms,' and diverse applications (e.g., human health, agriculture, industrial microbial processing).

BIOL 4550: Cancer Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3410

This course will cover the underlying biochemical, molecular and cellular events involved in carcinogenesis, tumor growth, and metastasis. This will include signaling pathways, proteins and regulatory networks involved in cell growth, cell death and tissue organization. Students will also be introduced to modern biochemical and molecular techniques used to dissect the molecular mechanisms controlling cancer development as well as a knowledge of the latest breakthroughs in cancer therapeutics.

BIOL 4610: Advanced Topics in Anatomy & Physiology

1-4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3410

This course covers advanced topics in physiology that may fit the needs and interests of highly select students. Students may learn advances in laboratory techniques or even microbial and cellular physiology.

Notes: Can be taken only once for credit toward degree.

BIOL 4620: Advanced Topics in Ecology & Evolution

1-4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3370 or BIOL 3380

Advanced topics in ecology and evolution that may fit the needs and interests of students and faculty. Such topics might include advanced lab and field techniques, microbial ecology, evolution of specific taxa, biology of gender.

Notes: Can be taken only once for credit toward degree.

BIOL 4630: Advanced Topics in Cell & Molecular Biology

1-4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3410

This course covers advanced topics in cell or molecular biology that may fit the needs and interests of highly select students. Student may learn such topics as advanced microbial genetics, or the biology of cancer.

Notes: Can be taken only once for credit toward degree.

BIOL 4635: Advanced Topics in Microbiology

1-3 Class Hours 0-3 Laboratory Hours 1-4 Credit Hours

Prerequisite: BIOL 3340

This course covers advanced topics in microbiology that may fit the needs and interests of highly select students. Student may learn topics like microbial ecology, mycology, or even protozoology.

BIOL 4800K: Diagnostic Microbiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 3340 and BIOL 3301K or permission of the instructor.

Students will learn the design and application of advanced microscopy, antibiotic sensitivity testing, antibody-based assays and nucleic acid techniques for the detection and identification of infectious agents.

Biology Education

BED 4422: Project-based Instruction

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SCED 2421, Preservice Certification and Admission to Year-long Clinical Experience

Corequisite: INED 3305 and INED 4435

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based biology lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course includes a 45-hour high school teaching experience.

BED 4423: Pedagogical Content Knowledge for Biology

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: BED 4422

Corequisite: BED 4660

Teacher candidates will continue to plan and implement various assessments while also learning how to modify their lessons based upon student performance. Candidates will learn how to help their students develop scientific evidence-based arguments and skills that differentiate science from pseudoscience. Finally, candidates will broaden their learning environment to include those stakeholders that are outside of the immediate classroom setting.

Notes: This course is restricted to participants in the UTeach program.

BED 4490: Special Topics in Biology Education

1-6 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

BED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to Yearlong Clinical Experience and Pre-Service Certificate

Corequisite: INED 3306 and INED 4436

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in biology education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement.

Notes: This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

BED 4660: Yearlong Clinical Experience

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: BED 4422, eligibility to take GACE

Corequisite: BIOL 4399, INED 3306, INED 4436

This course is an intensive and extensive co-teaching clinical experience in biology education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement.

Business Administration

BUSA 1000: Introduction to Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Freshman or Sophomore standing; Non-business Majors: None.

Broad-spectrum analysis of business enterprise, its nature, environment, organization, management, operation and control procedures.

BUSA 2150: Discovering My Major and Career

0 Class Hours 0 Laboratory Hours 0 Credit Hours

Prerequisite: ENGL 1102

This is the first course of a 3-course, zero-credit hour, hybrid program designed to help Coles College students prepare for success in their upper-division BBA courses and after graduation. In this course, students research careers and majors, identify their desired major, and prepare professional communications describing their research and career objectives. Understanding the career(s) associated with their chosen major will help students progress toward their degree with purpose, on track and on time.

BUSA 3150: Developing My Career Essentials

0 Class Hours 0 Laboratory Hours 0 Credit Hours

Prerequisite: BUSA 2150 and Admission to the Coles College Undergraduate Professional Program

This is the second of a 3-course, zero credit, hybrid program designed to help Coles College students prepare for success in their upper-division BBA courses and after graduation. In this course, students will explore their talents, skills and strengths, and become more self-aware through personal assessment. Students will develop a resume and practice their interview skills.

BUSA 3500: Culture & International Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course explores the cultural challenges of doing business in another country. It will focus on how to communicate, manage and lead individuals, conduct operations, and market products in countries with different languages, characteristics, customs, values and attitudes. Because this course is offered as a part of an education abroad program, special emphasis will also be placed on the culture of the designated country(ies).

BUSA 4150: Driving My Success

0 Class Hours 0 Laboratory Hours 0 Credit Hours

Prerequisite: BUSA 3150 and Admission to the Coles College Undergraduate Professional Program.

This is the third of a 3-course, zero credit, hybrid program designed to help Coles College students prepare for post-graduation success. In this course, students will fine-tune the skills required to carry out an effective job search. Students will develop their personal brand, an elevator speech, and leadership style. Business etiquette and dress and negotiating strategies will be discussed. Students will update their resume and practice their interview skills.

BUSA 4490: Special Topics in Business Administration

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Associate Dean for Undergraduate Business Programs.

Selected special topics of interest to faculty and students

Business Law

BLAW 2200: Legal and Ethical Environment of Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

Covers torts, contracts, government regulation of business and the legal system. Also addresses ethical issues arising in business internal and external relationships.

BLAW 3400: Negotiation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 3100 with minimum grade of "C", 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the theory and practice of negotiation. In addition to reviewing readings, students will participate in simulations and discuss negotiation cases to broaden their negotiating techniques.

BLAW 4100: Advanced Business Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of legislation regulating business partner-ships, corporations, commercial paper, secured transactions, sales, consumer credit and bankruptcy.

BLAW 4200: Employment Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of the influence of law on the personnel function, with special emphasis on discrimination laws and affirmative action issues. Provides an overview of various federal laws such as the National Labor Relations Act, The Fair Labor Standards Act and ERISA.

BLAW 4300: Real Estate Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Designed to provide the business student with an understanding of the nature, sources and principles of real estate law, and its importance in the business environment. Topics include: real property; contracts involving real estate, deeds and titles; transfer of real estate, mortgages, liens, zoning and land use

controls, condemnation, real estate agents and landlord-tenant law.

BLAW 4400: Directed Study

1-3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Director of the School of Accountancy prior to registration.

Special topics of an advanced nature not in the regular course offerings.

BLAW 4490: Special Topics in Business Law

1-3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and the Director of the School of Accountancy prior to registration.

Selected topics of interest to faculty and students.

BLAW 4500: Franchise Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Designed to provide the business student with an understanding of the nature, sources and principles of franchise law and its importance in the business environment. Topics include: fundamentals of franchising, intellectual property, FTC Rules and disclosure, requirements of franchise registration and business opportunity law and earnings claims.

BLAW 4600: International Law: Business Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or a student in a Coles College Partner Program that includes this course.

Examines the international legal system and alter-native means of international dispute resolution. Covers laws that determine when and under what conditions companies are allowed to do business abroad. Cases used to explore choosing the most appropriate business relationship and entering the most advantageous agreement.

BLAW 4960: Current Issues in Business Ethics and Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or a student in a Coles College Partner

Program that includes this course.

An examination of contemporary issues in legal and ethical behavior in organizations. Stresses the application of ethical principles to business.

Chemistry

CHEM 1151: Survey of Chemistry I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English and Learning Support Mathematics courses, if required.

This course provides a survey of the general principles of atomic structure, bonding, reaction, solutions, equilibria as required for a basic understanding of physiological applications. A brief introduction to organic compounds that are of particular importance in pharmacological applications is given.

CHEM 1151L: Survey of Chemistry I Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: CHEM 1151

Laboratory course to study and apply topics and concepts covered in CHEM 1151.

CHEM 1152: Survey of Chemistry II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1151 or CHEM 1211

This course includes a study of the classes of organic molecules including their common uses and physical and chemical properties. An introductory look at the structure and function of biological macromolecules is provided.

CHEM 1152L: Survey of Chemistry II Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1151L.

Concurrent: CHEM 1152

Laboratory course to study and apply the topics and concepts covered in CHEM 1152.

CHEM 1211: General Chemistry I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: High school chemistry or CHEM 1151

Concurrent: MATH 1113 or MATH 1112 or MATH 1190

This course is the first in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Course content includes electronic structure of atoms and molecules, bonding fundamentals, fundamentals of chemical reactions, and gas laws.

CHEM 1211L: General Chemistry I Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: CHEM 1211, and MATH 1113 or MATH 1112 or MATH 1190

First laboratory course in general chemistry. Designed to introduce the student to the application of cognitive skills utilizing chemical knowledge in the laboratory.

CHEM 1212: General Chemistry II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1211 and a grade of "C" or better in MATH 1113 or MATH 1112

This course is the second in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Course content includes chemical kinetics, chemical thermodynamics, liquids and solids, properties of solutions, chemical equilibrium, acids and bases, electrochemistry, and qualitative analysis.

CHEM 1212L: General Chemistry II Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1211, and CHEM 1211L

Concurrent: CHEM 1212

Second laboratory course in general chemistry. Designed to continue the application of cognitive skills utilizing chemical knowledge in the laboratory including qualitative analysis techniques.

CHEM 2050: Introduction to Directed Research

0 Class Hours 3-9 Laboratory Hours 1-3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1211 and CHEM 1211L and permission of the instructor

This course enables freshmen and sophomores to conduct an applied research project that is directed by a faculty member. Students may earn between one and three credits per semester and this course may be repeated for up to a total of five credit hours only.

CHEM 2800: Quantitative Analytical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: "B" or better in CHEM 1212 or "C" or better in CHEM 3361

This course introduces students to statistics; the use of spreadsheets; principles of gravimetric and volumetric analysis; concepts of chemical equilibria as applied to acid-base, precipitation and complex ion reactions; electrochemistry and potentiometry; ultraviolet-visible spectroscopy; and an introduction to modern chromatographic separations.

CHEM 2800L: Quantitative Analytical Chemistry Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A "B" or better in CHEM1212 and CHEM 1212L or a "C" or better in CHEM 3361L

Concurrent: CHEM 2800

Laboratory experiments include: gravimetric analysis, precipitation, compleximetric, and reduction-oxidation titrations; potentiometric applications; calibration techniques using ultraviolet - visible spectroscopy. Tutorials on the application of spreadsheets.

CHEM 3000: Chemical Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3361

An exploration of the process and practice of chemical research that leads to publication. An introduction to resources and methods for searching the chemical literature.

CHEM 3010: Medicinal Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3501 or CHEM 3500

This course covers fundamentals of pharmacology such as drug discovery/development and pharmacokinetics, with emphasis given to the role of chemistry and biochemistry in these areas. A main focus of the course will be how drugs function at the molecular level. Examples will be chosen from drugs that target enzymes, receptors, and DNA.

CHEM 3030: Pharmaceutical Analytical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 2800 and CHEM 3000

This course describes the major techniques used in the analysis of pharmaceuticals following the United States Pharmacopoeia. The topics include quality control, physical and chemical properties of drug molecules and various chemical analysis including classical methods, spectroscopy, and chromatography.

CHEM 3030L: Pharmaceutical Analytical Chemistry Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3362, CHEM 3362L, and MATH 1190

Concurrent: CHEM 3030

This course provides hands-on experience in the laboratory of the major techniques used in the analysis of pharmaceuticals following the United States Pharmacopoeia. The laboratory experiments involve the analysis of drug molecules by dissolution, titration, molecular spectroscopy, atomic spectroscopy, GC, and HPLC including methods of extraction and thermal methods of analysis.

CHEM 3050: Physical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 2212 (or concurrent enrollment), MATH 2202 and CHEM 2800

This one semester course in physical chemistry provides a survey of thermodynamics, chemical equilibria, and kinetics. It also includes an introduction to the quantum mechanical principles important in understanding molecular spectroscopy and molecular modeling.

CHEM 3105: Inorganic Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3050 or CHEM 3601

Concurrent: CHEM 3105L

In-depth study of concepts and theories of inorganic chemistry. Topics include atomic structure, bonding, coordination chemistry, reaction mechanisms, symmetry, and a general survey of descriptive inorganic chemistry.

CHEM 3105L: Inorganic Synthesis

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: CHEM 3105

Laboratory course to introduce the concepts and practices of inorganic synthetic chemistry. Emphasis is on the synthesis, characterization, reactivity, structure, and other properties of the inorganic compounds and complexes. The course introduces standard methodology for the synthesis and characterization of compounds.

CHEM 3110: Bioinorganic Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3050

Concurrent: CHEM 3110L

General aspects of bioinorganic chemistry will be discussed including physical methods, roles of metals in biological systems, classes of metalloproteins and metalloenzymes, and metals in medicine. The primary focus is on understanding how metals make a variety of biological functions possible through their unique properties.

CHEM 3110L: Bioinorganic Chemistry Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: CHEM 3110

The aim of this laboratory is to integrate concepts from biology and inorganic chemistry by performing experiments that lie at the interface of these two disciplines. Lecture topics will be reinforced through experiments covering synthesis and analysis of bioinorganic model compounds, enzyme activity as it relates to metal availability, and metal therapeutics.

CHEM 3120: Descriptive Inorganic Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3050

Corequisite: CHEM 3105L

General aspects of inorganic chemistry including bond theory, periodicity, acid-base chemistry, energetics, reaction mechanisms, model systems, kinetics, redox chemistry, and descriptive chemistry of the elements with primary focus of taking students from the introductory principles of chemistry to a broader and deeper level of understanding of the chemistry across the periodic table.

CHEM 3200: Culture and Chemistry

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 336 I

This global learning course will expose students to the predominant chemistry conducted in the host country at the university level, as well as in industry. The culture, history, and lifestyle of the host country population will be experienced through visits to museums, landmarks, restaurants and/or historical sites. Other scientific locations of interest will also be visited to increase the interdisciplinary nature of the science to which students are exposed.

CHEM 336 I: Modern Organic Chemistry I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1212

This course is the first of a two-semester sequence in modern organic chemistry. The course includes a study of structure, properties, synthesis, and reactions of basic organic compounds using modern structural and mechanical theories.

CHEM 336 I L: Modern Organic Chemistry Lab I

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 1212L

Concurrent: CHEM 336 I

Laboratory experiments designed to introduce the students to modern experimental method used in organic chemistry for separation of mixture, purification of compounds, and reactions illustrating single functional group transformation.

CHEM 3362: Modern Organic Chemistry II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: C or better grade in CHEM 336 I

This course is the second of a two-semester sequence in modern organic chemistry. The course includes a study of structure, properties, synthesis, and reactions of basic organic compounds using modern structural and mechanical theories.

CHEM 3362L: Modern Organic Chemistry Lab II

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: C or better grade in CHEM 3361L

Concurrent: CHEM 3362

Laboratory experiments designed to introduce the students to modern experimental methods used in organic chemistry synthesis, characterization of compounds, and multi step synthesis of useful target-compounds from readily available starting material.

CHEM 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of coordinator of cooperative education/internship.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

CHEM 3398: Internship

Variable 1-12 Credit Hours

Prerequisite: Approval of internship coordinator and chair.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

CHEM 3400: The Teaching and Learning of Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 3361 with a grade of "C" or better.

An introduction to the methods of effective chemistry teaching in both the classroom and laboratory settings. Current chemical education research literature on topics such as theories of teaching, active learning strategies, misconceptions, multiculturalism, laboratory design, demonstrations, and assessment will be introduced and discussed. Class meetings will include hands-on activities where demonstrations and laboratory investigations are designed, enacted, and assessed as well as discussions about research-based best practices in the presentation of chemistry concepts to diverse student populations. Time will also be devoted to ensuring that essential chemistry content such as electro chemistry, thermodynamics, kinetics, and bonding are thoroughly understood so that they can be communicated effectively in the classroom.

CHEM 3450: Peer Leading in Chemistry

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CHEM 3361 or instructor consent.

The purpose of this course is to support and prepare students for the role of peer leader. Peer leaders work with small groups of students that are enrolled in introductory chemistry courses on a weekly

basis. The course involves training in pedagogical techniques and a review of relevant chemistry concepts. Emphasis is made on reflective practices within the peer led setting. Enrollment by permit only.

CHEM 3500: Biochemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: C or better grade in CHEM 3362

This course is a one-semester, lecture-only biochemistry course. Concepts covered include the structure and function of biomolecules, membranes, enzyme kinetics, metabolism and bioenergetics, as well as biological information flow. Intended for chemistry, biology, or biotechnology majors.

Notes: Biochemistry majors are required to take CHEM 3501/L and CHEM 3502.

CHEM 3500L: Biochemistry Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: C or better grade in CHEM 3362L

Concurrent: CHEM 3500

This laboratory serves as an introduction to biochemistry laboratory techniques and includes biochemical applications of spectroscopy, electrophoresis and chromatography. CHEM 3500L is a laboratory companion to CHEM 3500 and is taken by general chemistry, forensic, professional, and chemistry education track chemistry majors and others needing a one semester biochemistry course with laboratory. This laboratory is not intended for biochemistry majors.

CHEM 350I: Biochemistry I: Structure and Function of Biological Macromolecules

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: C or better grade in CHEM 2800 and CHEM 3362

Concurrent: CHEM 3501L

Chemistry and biochemistry of macromolecules: proteins, carbohydrates, lipids, and nucleic acids. Introduction to enzymes.

CHEM 3501L: Biochemistry I Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: C or better grade in CHEM 2800L and (CHEM 3362 and CHEM 3362L)

Concurrent: CHEM 350I

Introduction to biochemistry laboratory techniques including centrifugation, chromatography, electrophoresis, spectroscopy, and exploration of bimolecular structure using computer graphics.

CHEM 3502: Biochemistry II: Metabolism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3501

A detailed study of enzyme mechanisms, thermodynamics, and major metabolic pathways, including carbohydrate, lipid, and amino acid metabolism.

CHEM 3512L: Biochemistry II laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3501 and CHEM 3501L

Corequisite: CHEM 3502

A laboratory course designed to provide students training in essential tools of practical biochemistry, important for success in industry and graduate school. This laboratory combines the foundational concepts and techniques from Biochemistry I Lecture and Laboratory and applies them to a student-led research project.

CHEM 3540L: Advanced Biochemistry Laboratory

0 Class Hours 6 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3501L

Laboratory course intended for students who plan to work in an industrial setting or attend graduate school in one of the biosciences. This laboratory combines the techniques from Biochemistry I Laboratory (CHEM 3501L) in a realistic, applied way to solve multi-step problems.

CHEM 360 I: Physical Chemistry I: Atomic and Molecular Structure and Spectroscopy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202, CHEM 2800, CHEM 2800L, and PHYS 2212

Concurrent: CHEM 3601L

This course is the first course in a two-semester sequence in physical chemistry. This course provides an introduction to quantum mechanics and its application to selected chemical systems, atomic structure, chemical bonding, atomic, rotational, vibrational, and electronic spectroscopy. This course also provides an introduction to statistical mechanics.

CHEM 3601L: Physical Chemistry Lab I

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202, CHEM 2800, CHEM 2800L, and PHYS 2212

Concurrent: CHEM 3000, CHEM 3601

Laboratory methods in physical chemistry.

CHEM 3602: Physical Chemistry II: Reaction Kinetics and Thermodynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3601 and PHYS 2212

Concurrent: CHEM 3602L

This course is the second in a two-semester sequence covering physical chemistry, and has its primary emphasis on chemical thermodynamics, reaction kinetics and dynamics, statistical thermodynamics. The course includes physical and chemical properties of real and ideal gases, the laws of thermodynamics and their application to physical and chemical systems, treatment of phase equilibria and chemical equilibria, and extends the application of quantum mechanics to thermodynamics in the development of statistical thermodynamics.

CHEM 3602L: Physical Chemistry Lab II

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3601L

Concurrent: CHEM 3602

Continuation of CHEM 3601L

CHEM 3700: Environmental Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3361

This course will cover the environmental chemistry involving the transport, distribution, reactions, and speciation of inorganic, organometallic and organic chemicals occurring in the air, soil and water environments at the local, national and global scale. Environmental transformations and degradation processes, toxicology, pollution and hazardous substances will be discussed.

CHEM 3701: Atmospheric Chemistry

3-0-3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 2800

Atmospheric chemistry is the study of physical and chemical processes in the atmospheric layer. This course is aimed to improve our understanding of atmosphere layers, atmospheric transport, biogeochemical cycles of gaseous compounds, aerosol, acid rain, air pollutions, ozone depletion, greenhouse gases and global warming, chemical kinetics in mesosphere and thermosphere. Atmospheric chemistry is an elective for Environmental Science or Chemistry major students.

CHEM 3710L: Environmental Chemistry Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3361L

This laboratory course is designed to teach sampling, environmental analysis, data handling, systems modeling, specialized instrumental techniques, and field techniques related to atmospheric, geologic,

and freshwater environmental chemistry. Additionally, team research projects will be designed to address a specific question related to the topics mentioned above.

CHEM 3800: Forensic Analytical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 2800 and CHEM 3361

This course covers fundamental topics of forensic analytical chemistry including statistics and data quality, sample preparation, drugs (pharmacology and toxicology), arson and the chemistry of combustion, and trace chemical evidence. Throughout the course, emphasis is placed on modern chemical instrumentation as applied to forensic casework.

CHEM 3800L: Forensic Analytical Chemistry Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: CHEM 2800L and CHEM 3362L

Concurrent: CHEM 3800.

Students will use modern chemical instrumentation to analyze simulated crime scene samples. Activities related to drug identification, arson debris analysis, and trace chemical analysis will be performed. Laboratory experiments will be designed to introduce students to the types of samples and analytical methodology encountered in a working crime lab.

CHEM 4000: Service Learning in Chemistry

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

CHEM 4100: Directed Applied Research

1-3 Credit Hours

Prerequisite: Junior level status; consent of the instructor and chair.

Applied research project directed by a faculty member.

CHEM 4110: Advanced Topics in Inorganic Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3100, CHEM 3602

Survey of modern inorganic chemistry and current theories concerning atomic structure, bonding, coordination chemistry, spectroscopy including a discussion of symmetry and group theory as they apply to the characterization of inorganic compounds, ligand field theory and other topics.

CHEM 4120L: Research Methods Laboratory

0 Class Hours 6 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 2800 and CHEM 3362

This course will teach students advanced laboratory skills through work on a designed research project. Students will learn how to search the scientific literature, and will write a journal style report summarizing their research project.

CHEM 4300: Instrumental Analytical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 2800 and a grade of "C" or better in CHEM 3050 or CHEM 3601

Introduction to chemometrics. Theoretical principles and uses of modern instrumental methods covering: spectroscopy, electroanalysis, and chromatographic separations.

CHEM 4300L: Instrumental Analytical Chemistry Laboratory

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: CHEM 2800L

Concurrent: CHEM 4300

Laboratory experiments include: calibration techniques for analyzing single-component and multicomponent systems, application of spectroscopy (UV-VIS, AAS), electroanalysis (different forms of voltammetry), chromatographic separations (LC, GC) in quantitative and qualitative analysis.

CHEM 4310: Advanced Topics in Analytical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3601 or CHEM 3050

This course will discuss the advanced theories and methods in analytical chemistry emphasizing newer analytical methods in practice in modern laboratories.

CHEM 4310L: Advanced Analytical Chemistry Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in both CHEM 2800 and CHEM 2800L

Students will use modern chemical instrumentation to solve complex problems in analytical chemistry. Instrumentation will include FTIR, GC-FID, GC-MS, HPLC, CE, UV-Vis, LIBS and other techniques depending on faculty expertise.

CHEM 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of instructor, major area committee and department chair prior to registration.

Up to five hours may be applied to the major area. Special topics of an advanced nature that are not in

the regular course offerings.

CHEM 4420: Identification of Organic Compounds

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3362

Advanced study of common spectrometric techniques for identifying organic compounds. Emphasis on interpretation of data obtained from Infrared Spectroscopy (IR), Mass Spectrometry and Nuclear Magnetic Resonance (NMR), including two-dimensional NMR.

CHEM 4430: Advanced Topics in Organic Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3362

Advanced topics in organic chemistry as may fit the needs and interest of the students and faculty. Such topics might include stereochemistry, physical organic chemistry, heterocycles.

CHEM 4430L: Advanced Topics in Organic Chemistry Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3362L

Corequisite: CHEM 4430

Laboratory experiments designed to teach students the process of design, planning, and implementation of organic synthesis and the characterization of compounds using classic analytic methods and modern spectroscopic techniques.

CHEM 4440: Polymer Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3362

Topics in modern polymer chemistry including synthesis, kinetics, characterization, and uses.

CHEM 4500K: Methods in Nucleic Acid and Protein Biochemistry

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: "C" or better in (CHEM 350I and CHEM 350I) and (BIOL 3300 and BIOL 3300L)

This course covers the chemical aspects of biochemical techniques routinely performed in the study of DNA, RNA, and protein. This course will build upon and complement the information on proteins and enzymes covered in biochemistry courses and the basic understanding of DNA, RNA, replication, transcription, and translation that students learn in biochemistry, genetics and other biology courses. The laboratory component of this course provides an opportunity for multi-week projects that combine methods learned in previous courses with new methods, and as such it serves as a capstone experience in biochemical methodology.

CHEM 4510: Advanced Topics in Biochemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3501 or CHEM 3500

Topics relating to the chemistry of metabolic processes in living organisms.

CHEM 4620: Advanced Topics in Physical Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CHEM 3602

Advanced topics in physical chemistry with emphasis in such areas as quantum mechanics, statistical mechanics, kinetics, and molecular spectroscopy.

Chemistry Education

CHED 3421: Classroom Interactions

2 Class Hours 1 Laboratory Hours 2 Credit Hours

Prerequisite: EDSM 1102 and CHEM 3362 and Admission to the Teacher Education Program

Corequisite: SCED 3010, ITEC 3300, INED 3305, INED 4435

This course examines teachers, students, content, and interactions that lead students to develop conceptual understandings of chemistry. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning. This course includes a 29 hour field experience as introduction to the adolescent learner, the equity imperative and science education reform. This course is restricted to participants in the UTeach program.

CHED 4416: Teaching Chemistry (6-12)

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: EDUC 2130, 20 credit hours of upper-division major requirements completed, admission to Teacher Education, and permission of the program coordinator.

An examination and application of learning theories, curricular issues, instructional design, and assessment strategies for teaching middle and secondary school chemistry in diverse classrooms. Candidates develop initial competencies for establishing a well-managed, productive learning environment, applying chemistry content knowledge to the task of teaching adolescents, and promoting an understanding of the nature of science through inquiry-based instruction. Emphasizes practices supported by science education research and endorsed by the NSTA. Proof of professional liability insurance is required prior to receiving school placements in the corequisite practicum.

CHED 4417: Teaching Chemistry (6-12) Practicum

0 Class Hours 9 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to CHED 4416.

This course is a mentored teaching experience in middle school physical science classes. Candidates spend approximately 150 hours in the placement school, where they demonstrate professionalism and competence for teaching science for early adolescents. The candidates must earn a satisfactory

performance assessment to continue to student teaching.

Notes: Proof of professional liability insurance is required prior to school placement.

CHED 4422: Project-based Instruction

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SCED 2421, Preservice Certification and Admission to Year-long Clinical Experience

Corequisite: INED 3305 and INED 4435

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based chemistry lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program. This course includes a 45-hour high school teaching experience.

CHED 4423: Pedagogical Content Knowledge for Chemistry

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CHED 4422, CHED 4650, INED 3306, and INED 4436

Corequisite: CHED 4660

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based chemistry lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program.

CHED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Preservice Certification and Admission to Yearlong Clinical Experience

Corequisite: CHED 4422, INED 3306 and INED 4436.

This course is the first semester of an intensive and extensive coteaching year-long clinical experience in chemistry education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

CHED 4660: Yearlong Clinical Experience

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: CHED 4422 and eligibility to take GACE

Corequisite: CHED 4423

This course is an intensive and extensive co-teaching clinical experience in chemistry education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment

that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

Chinese

CHNS 100I: Introduction to Chinese Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all English Learning Support courses, if required.

Introduction to Chinese language and culture Part I, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Chinese culture.

Notes: Not open to native speakers of Chinese.

CHNS 1002: Introduction to Chinese Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Chinese or CHNS 1001 or the equivalent.

Introduction to Chinese language and culture, Part II, stressing continued progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Chinese culture.

Notes: Not open to native speakers of Chinese.

CHNS 200I: Intermediate Chinese Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Chinese or CHNS 1002 or the equivalent.

Students continue to develop proficiency in listening, speaking, reading and writing in Chinese and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of Chinese.

CHNS 2002: Intermediate Chinese Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Chinese or CHNS 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

Notes: Not open to native speakers of Chinese.

CHNS 2003: Accelerated Intermediate Chinese Language and Culture

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: Two years of high school Chinese or CHNS 1002

This accelerated intermediate level course in Chinese language and culture covers in one semester the materials presented in CHNS 2001 and CHNS 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Chinese culture.

CHNS 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 2002 or the equivalent

This course is a study of selected readings of signs, news, and literary and cultural works to increase vocabulary, enhance grammar skills, and develop reading skills. It is designed to give students extensive experience in reading Chinese.

CHNS 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 2002 or the equivalent

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

CHNS 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 2002 or the equivalent

This course is a general review of grammar and composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

CHNS 3304: Readings in Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3200

This course introduces students to selected readings in Chinese culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Chinese context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Chinese and discussions are in Chinese and English.

CHNS 3305: Readings in Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3200

This course continues to introduce students to selected readings in Chinese culture, through which they expand their vocabulary and learn new grammar. Students also learn more about cultural issues within the Chinese context and develop their competence in critical analysis from a global perspective. Readings are in Chinese and discussions are in Chinese and English.

CHNS 3390: Upper-division Study Abroad in Chinese

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or Senior status and permission of the department chair.

This course fulfills the study abroad elective for the minor in Chinese Studies. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the minor in Chinese Studies and/or for the degree in Modern Language & Culture.

CHNS 3398: Internship

1-6 Credit Hours

Prerequisite: CHNS 3302 or permission of the instructor.

This course is a supervised, credit-earning work experience of one semester requiring the use of Chinese in the work place. Prior approval by the program coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

Notes: Prior approval by the program coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

CHNS 4400: Directed Study

1-3 Credit Hours

Prerequisite: CHNS 2002 or permission of instructor

This course covers special topics and seminars external to course offerings that allow a student to work individually with an instructor. It requires prior approval by the instructor and department chair.

CHNS 4402: Contemporary Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3304 or CHNS 3305 or the equivalent.

This course is an examination of the historical, social and political contexts of the contemporary Chinese experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature. Readings are in Chinese and discussions are in Chinese and English.

CHNS 4404: Commercial Chinese

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 2202 or permission of instructor

This course is an in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to conducting business in the Chinese-speaking world. Readings and discussions are in Chinese and English.

CHNS 4434: Topics in Language, Literature, and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3304 or CHNS 3305 or the equivalent.

This course explores a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Chinese culture and society. Readings are in Chinese and discussions are in Chinese and English.

CHNS 4456: Advanced Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3303 or permission of the instructor.

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectical variations of the Chinese language and stresses development of oral proficiency. The course is taught in Chinese and English.

CHNS 4490: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3302 or permission of the instructor.

This course covers special topics relevant to the study of Chinese-speaking societies.

CHNS 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHNS 3304 and CHNS 3305 and senior status

This is a capstone course designed to synthesize and connect the students' prior academic experiences in the major and related fields of study. Students prepare a reflective essay and a research paper to present to the faculty. Papers and presentations are in Chinese.

Civil Engineering

CE 1000: Orientation to Engineering and Surveying Professions

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Introduction to the professional practice and options within the disciplines of civil engineering and construction engineering: engineering ethics, career opportunities, professional licensing, and industry

expectations in the professional disciplines, as well as department policies on advisement and curriculum requirements to graduation.

CE 2003: Engineering Problem Solving

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214

This course introduces spreadsheet applications for civil engineering analysis and problem solving, calculating building loads, and linear and nonlinear regression. The course also covers fundamentals of dynamics relevant to the FE exam and to subsequent courses in structures. Topics include vector methods, force and acceleration, linear and angular momentum, and energy methods.

CE 3201: Structural Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 2003, ENGR 3131, ENGR 3132 and Engineering Standing

This course is the introductory course in identification and analysis of basic structural elements. Topics include the determination of beam deflections, methods for the computational analysis of statically indeterminate trusses, moment distribution, and the analysis of frames.

CE 3202: Design of Concrete Structures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3201

ACI design procedures for reinforced concrete beams, columns, footings, slabs and other members, Introductory to masonry design.

CE 3398: Internship in Civil Engineering

0 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Dept Chair approval and Engineering Standing

This course allows students to enhance their classroom knowledge through practical application of theories to real-world issues in a real-world work environment. Students explore specific interests within their academic discipline and refine their post-graduation goals.

CE 3501: Materials for Civil & Construction Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 2003, ENGR 3131, ENGR 3132 and Engineering Standing

A study of different materials used for light and heavy construction projects, such as aggregates, woods, metals, concretes, masonry, and bituminous materials. An overview of materials science will be introduced, as well.

CE 3502: Materials for Civil & Construction Engineering Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CE 3501

A study of standard laboratory tests (ASTM and/or AASHTO) on the materials commonly used in Civil and Construction engineering field. The lab will reinforce the principles the principles of CE 3501 through laboratory experiments. Developing experimental data into effective laboratory reports will be emphasized.

CE 3701: Geotechnical Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 2003, ENGR 3131, ENGR 3132 and ENGR 3343

Introduction to fundamental knowledge of soil/foundation engineering for construction projects such as commercial building, highway, bridge, airport, and water/wastewater treatment plant. Course topics will include composition of soils, subsurface investigation, soil classification systems, groundwater flow, permeability, compaction, stress/strain analysis, shear strength, consolidation/settlement, shallow and deep foundations, earth retaining structures, slope stability, and ground modification methods.

CE 3702: Introduction to Environmental Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 1212, CHEM 1212L, and ENGR 3343, and Engineering Standing.

Concurrent: CE 2003

The course introduces environmental engineering issues such as: legal aspects, engineering solutions, and basic approaches to abatement system design including water supply, water treatment, water quality management, wastewater treatment, air pollution control, solid and hazardous waste management, and environmental impacts.

CE 3703: Environmental Engineering Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702, CE 3704, and Engineering Standing

This course introduces students to environmental engineering design of unit processes and pollution abatement systems such as: water treatment plant design, wastewater treatment plant design, and sludge management system design.

CE 3704: Introduction to Environmental Engineering Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: CE 3702 or concurrent registration

This course applies the basic chemistry and chemical calculations to measure physical, chemical, and bacteriological parameters of water and wastewater. Laboratory methods and interpretation of results with regard to environmental engineering applications such as design and operation of water and wastewater treatment processes, and to the control of the quality of natural waters are also covered.

CE 3708: Geotechnical Engineering Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ENGR 3131, ENGR 3132 and (CE 3701-may be taken concurrently)

A study of standard laboratory tests (ASTM and/or AASHTO) on soils. The lab will reinforce the principles of Geotechnical Engineering studied in CE 3701, and developing experimental data into effective laboratory reports will be emphasized.

CE 4103: Design of Steel Structures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3201 and Engineering Standing

Behavior and design of structural members and connections using Load and Resistance Factor Design (LRFD) methods; mechanical properties of structural steel; design of tension members, compression members, beams and beam-columns; typical shear and moment connections, welded and bolted; and steel joist design.

CE 4105: Foundation Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3701, CE 3708, and Engineering Standing

This course deals with design of foundations for buildings and other structures and also for such non-foundation problems as designs of retaining walls, bulkheads, and earth dams; as well as the design of natural slopes and stabilization of soils mechanically and chemically. This course is designed to provide students in civil engineering with methods of analysis and design for various geotechnical systems. Topics to be covered include: subsurface investigations; excavations; shallow foundation; deep foundation; design of sheeting and bracing systems; lateral earth pressures and earth retaining structures, slope stability.

CE 4177: Transportation Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3305 and Engineering Standing

Corequisite: CE 4179

This course provides an introduction to the highway engineering and traffic analysis. Principle topics covered in this course include: introduction to the significance of highway transportation to the social and economic underpinnings of society, road vehicle performance, geometric design of highways, pavement design, traffic flow and queuing theory, highway capacity and level of service analysis, traffic control and analysis at signalized intersection.

CE 4178: Highway Design and Construction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 4177

This course addresses many challenges facing engineers when designing and constructing highways. Areas of study include the design of horizontal and vertical alignments, roadside features, parking

facilities, intersection design elements, traffic control devices, traffic signal operations and vehicle detection design, and the socioeconomic impacts of the roadway design.

CE 4179: Transportation Engineering Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CE 4177

This laboratory exposes students to a variety of traffic studies commonly conducted in the field, including spot speed study, turning movement counts, vehicle delay study, parking study, saturation flow rate study, queue length study, headway study, traffic compliance study, and verification of Poisson distribution. In addition to the field studies, the students will learn how to conduct traffic analysis and simulation using traffic analysis software (HCS+ and Synchro/SimTraffic).

CE 4343: Solid Waste Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702 and Engineering Standing

This course introduces the concepts of generation, storage, collection, transfer, treatment, and disposal of solid waste. Students also address related engineering and management issues.

CE 4353: Air Pollution Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702 and Engineering Standing

This course focuses on fundamental concepts of air pollution, emission sources, atmospheric dispersion, ambient concentrations, adverse effects, governmental regulations, emission standards, air-quality standards, processes and equipment for controlling emissions.

CE 4363: Environmental Engineering Chemistry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702 and Engineering Standing

Students learn the chemical principles and applications needed to develop advanced problem-solving techniques involved with many water/wastewater treatment processes and natural systems.

CE 4371: Environmental Engineering Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: CE 3704

Students study the application of basic chemistry and chemical calculations to measure chemical and bacteriological parameters of water, wastewater, and soil. Laboratory methods and interpretation of results with regard to environmental engineering applications such as design and operation of wastewater treatment processes, soil and sediment remediation, and environmental health are also explored.

CE 4373: Environmental Engineering Microbiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702 and Engineering Standing

This course is intended to provide fundamental knowledge about microorganisms in the natural and engineered environment and their role in the cycling of elements, both natural and anthropogenically introduced into the environment. The course focuses on understanding their role in the biodegradation of contaminant chemicals and the application of processes that take advantage of the microbiological biodegradation processes.

CE 4490: Special Topics in CE/CnE

1-9 Credit Hours

Prerequisite: Junior standing, Engineering Standing and consent of the Department Chair.

Special topics offered by the program on a demand basis.

CE 4703: Engineering Hydrology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3343 and Engineering Standing

The course presents the hydrological processes and their relationship to the design of structures for control and management of water resources, rainfall-runoff relationships, and probability and frequency analysis as they relate to surface and groundwater hydrology.

CE 4704: Engineering Hydraulic Analysis and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3343 and Engineering Standing

The course applies principals of fluid mechanics to the design and analysis of hydraulic systems. The course emphasizes open channel flow and addresses topics of interest to the Civil Engineer. Topics include hydraulic grade line calculations, pump design, culvert analysis and design, based flood elevation studies using HEC-RAS, non-uniform flow, gutters and inlets, water distribution, open channel design.

CE 4705: Advanced Soil Mechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3701 and Engineering Standing

The course is offered as a technical elective to junior and senior undergraduate students and represents a transition between the introductory and fundamental nature of the material covered in ENGR 3131 and applied soil materials. The course will cover modified Mohr-Coulomb diagrams, triaxial extension and triaxial compression tests, and drained and undrained failure at principle stress.

CE 4706: Pavement Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 320I and Engineering Standing

A study of the methods used to determine the thickness and composition of layers in both flexible and rigid pavements. Class work will also include various types of pavement, stress-strain behavior of pavement systems, characterization of paving materials, consideration of traffic in pavement design, performance prediction models and failure criteria, theoretical analysis and design of highway pavements with critical evaluation of current design practices. Hands on practice sessions with AASHTO and PCA, the Asphalt Institute methods will be provided.

CE 4707: Design of Wood Structures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 320I and Engineering Standing

The course introduces the design of wood structure and properties of wood. The course will cover the topics such as determination of horizontal and vertical loads, horizontal and vertical load-resisting systems, design of horizontal diaphragms, and bolted and nailed connections.

CE 4708: Hazardous Waste Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 3702 and Engineering Standing

Students examine the definition, characterization, classification, regulation, treatment, and disposal of hazardous waste. Evaluation of unit operations and processes of importance in the treatment and disposal of common organic and inorganic hazardous wastes are also covered.

CE 4709: Advanced Structural Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CE 320I and Engineering Standing

The course offers computer-oriented methods for solving determinate and indeterminate structures including matrix analysis of two-and three-dimensional trusses, continuous beams, and frames. The class emphasizes on the displacement method and stiffness matrix development. Matrix analysis method will be applied to problems in structural engineering and mechanics using the Structural Analysis Program 2000.

CE 4800: Senior Project

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Senior Standing, Engineering Standing and consent of the Department Chair

Capstone design experience for graduating Construction Engineering majors.

Civil Engineering Technology

CET 100I: Orientation to the Civil ET, Environmental ET, and Geospatial Professions

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Introduction to the professional practice and options within the disciplines of civil engineering technology, environmental engineering technology, and geospatial technology (surveying and geographical information systems (GIS)). Topics discussed include career opportunities, professional licensing, and industry expectations in the professional disciplines, as well as SPSU and department policies on advisement and curriculum requirements to graduation.

CET 2110: Problem Solving Methods in CET

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2203

Introduction to engineering design processes using mathematics and principles of sciences, as well as engineering analysis as a decision-making tool for evaluating design alternatives. The concepts and tools of critical thinking are applied.

CET 2200: Introduction to Structures

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: PHYS 1111, PHYS 1111L (or concurrent enrollment)

An introduction to architectural structures with emphasis on statics and strength of materials concepts. Subject matter includes force systems, shear and moment diagrams, determination of section properties, and the design of wood beams and columns. (Not for credit for CET students).

CET 3110: Construction Materials and Sustainability

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CHEM 1211, CHEM 1211L) and (ENGT 3124 and ENGT 3124L) or CET 2200 or concurrently enrolled

Introduction to materials science and the engineering properties of a variety of civil engineering materials such as metals, wood, aggregates, Portland cement products and concretes, asphalt products and concretes. The relationship between composition, material properties and manufacturing will be examined. Laboratory will emphasize the analysis of data and the application of standard tests to design and construction specifications.

CET 3110L: Construction Materials Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3110

Laboratory will emphasize the analysis of data and the application of standard tests to design and construction specifications. ASTM tests on aggregates, mortar cubes, fresh concrete, hardened concrete cylinders and beams are performed by student teams. Asphalt binder and asphalt concrete tests are also studied.

CET 3120: Cost Estimating and Scheduling in CET

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3110

Corequisite: CET 3120L

Practice and methods of cost estimating, and scheduling in civil engineering projects. Emphasis is placed on reading construction drawings, critical path scheduling, and application of the Means Building Construction Cost data book. Application of "engineering economy" topics is included.

CET 3120L: Plan Reading and Take Offs Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3120

Students will learn to read project blue prints in the civil, structural, or related discipline. Students will practice quantity take offs in cost estimation applications.

CET 3130: Applied Fluid Mechanics and Hydraulics

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CET 2200 or ENGT 2124

Corequisite: 3130L

A study of basic principles of fluid mechanics and the application of these principles to practical problems. The subject matter will consist of fluid properties, fluid pressure, buoyancy, pipe flow analysis, open channel flow, and pump selection. Pressure pipe systems, flow measurement, and open channel systems are examined.

CET 3130L: Fluids and Hydraulics Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3130

Laboratory will determine properties of fluids, usage of various fluid instruments, and apply fluid mechanics principles on flat and curved surfaces, buoyant objects, closed piping systems, and pumping systems.

CET 3210: Structural Mechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGT 3124, ENGT 3124L

This course is a detailed introduction to the classical methods of analysis of both statically determinate and indeterminate structures. Subject matter includes Methods of Consistent Deformations, Unit Load Analysis, Beam Reflection Methods, Truss Deflections and The Design and usage of Influence Lines for Continuous Beams. The methods of moment distribution is emphasized for continuous beams and frame analysis. Rigid frame analysis and side sway is also included.

CET 3220: Applied Structural Steel Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3210

An in-depth study of techniques used in structural design. Determination of structural loads and the analysis and design of structural steel elements used in buildings and related structures. Current design procedures for steel joists, beams, girders, columns, base plates, and connections are applied. American Institute of Steel Construction Steel Design Manual and the Steel Joist Institute's joist manual specifications are used.

CET 3230: Concrete Infrastructure Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3110, CET 3110L and CET 3210

ACI design procedures for reinforced concrete beams, T-beams, columns, slabs, and other components. Includes also design of square footings, box culverts, and analysis of beams subject to torsion.

CET 3310: Water Treatment and Distribution

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CHEM 1211, CHEM 1211L, and CET 3130, CET 3130L

Corequisite: 3310L

Application of chemistry concepts on water quality and treatment processes. This course also includes the performance of mass balance calculations and study of reactor configurations in the design and operation of water treatment systems; and the design approach for water distribution systems and their basic components.

CET 3310L: Water Treatment and Distribution Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3310

This course covers the most common lab testing physicochemical techniques used in water characterization and assessment of drinking water quality.

CET 3320: Wastewater Collection and Treatment

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: (CET 3310, CET 3310L or concurrent enrollment), CET 2110

Corequisite: CET 3220L

Application of hydraulics in the design of wastewater collection systems and ancillary structures. This course also includes hydraulic analysis of equalization tanks, the study of metabolic processes and its application in wastewater treatment, design of conventional and individual wastewater treatment processes.

CET 3320L: Wastewater Collection and Treatment Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3320

This course covers the most common lab testing physicochemical techniques used in wastewater characterization and assessment of wastewater treatment systems.

CET 3410: Soil Properties and Site Exploration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 1211, CHEM 1211L, CET 3130, CET 3130L and (ENGT 3124, ENGT 3124L or CET 2200)

Corequisite: CET 3410L

This course provides an introduction to geotechnical engineering and foundation design. Students will study engineering properties of soil, stress distribution in soil, settlement and consolidation, seepage, shear strength and slope stability, shallow foundations, pile foundations, and retaining walls.

CET 3410L: Soil Properties Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3410

Students will classify soils and conduct standard lab experiments such as index property tests, proctor compaction, permeability, direct shear, unconfined compression, consolidation and triaxial tests.

CET 3420: Geosynthetics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 2110 and CET 3410

This course provides a comprehensive introduction to analysis and design of geosynthetics in geotechnical engineering applications. Since early 1970's geosynthetics materials, proven to be economically attractive, have been developed and used for reinforcement, separation, drainage, filtration, and containment purposes. The topics covered in this course are: physical & chemical properties and stress-strain behavior of geosynthetics, and design of earth structures with geotextiles, geogrids, and geomembranes.

CET 3430L: Site Exploration and Field Testing Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: CET 3410L

Students will study site exploration procedures and will utilize destructive and non-destructive field testing methods to determine physical and mechanical properties of soils.

CET 3510: Traffic Analysis and Road Design

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: SURV 2221, CET 2110

An overview of transportation engineering as it applies to land, air, and sea systems is presented. Course emphasizes the design factors required in planning and constructing roads and highways including traffic analysis and capacity; intersection design and signalization; location, geometrics and drainage; and materials and pavements. The lab focuses on the preparation of highway design plans, as well as data measurement techniques unique to transportation analysis.

CET 3510L: Traffic Analysis and Road Design Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 3510

This course emphasizes sound data collection and analysis techniques. Industry accepted techniques for several traffic engineering topics are presented. Studies are organized to facilitate preparation of formal transportation engineering reports. Each study follows conventional formats to aid the student in quality data collection and appropriate analysis procedures.

CET 4110: Ethics of Engineering

1 Class Hours 0 Laboratory Hours 1 Credit Hours

A review of the theoretical and practical aspects of ethical problems in engineering, along with their suggested solutions. Specific examples, situations and limitations of ethics and ethical relationships are discussed in detail.

CET 4120: Senior Design and Engineering Documentation

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Senior Standing, consent of the Program head.

This course is designed to be the culmination of the undergraduate civil engineering technology education. Under the guidance of the professor, students will form design teams, choose a proposed or ongoing project in the metropolitan area of Atlanta and conduct design or redesign. Working as independent teams with guidance from the lead professor the projects will be completed and the results presented for review to a panel of faculty and students. Each phase of design will include appropriate engineering documentation. All final designs will include engineering drawings and a construction cost estimate.

CET 4130: Special Inspections

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CET 3220, CET 3230, CET 3410, CET 3410L

Students will learn the specialized practice of inspecting concrete and steel buildings, bridges, and foundations.

CET 4210: Computer Methods in Structures

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3210

Review of matrix algebra, structural analysis by matrix methods (Flexibility and Displacement), Slope-Deflection theory, true stiffness determination of spans with varying moments of inertia, multi-story analysis, global stiffness matrix determination as applied to trusses, beams and frames (2D, 3D). Use of commercially available software for analysis and design such as PC-STRAN, GTSTRUDL or STAAD-III emphasized.

CET 4220: LFRD Steel Design

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3220

This is a follow up steel design course with an emphasis on the AISC Load and Resistance Factor Design method. Topics covered are beams (fully plastic, inelastic, elastic), concentric columns, leaner columns, standard connections (bolted and welded), eccentric connections, frame design (braced), modified effective lengths, base plates, and composite beam design (both ASD and LRFD).

CET 4230: Advanced Concrete Design

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3230

This is a continuation of the concrete design procedures covered in CET 3230. Topics include pre-stress member design, post-tensioned member design, retaining wall design, biaxial bending in short and long concrete columns, and two-way slab design.

CET 4240L: Structural Detailing Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: CET 3220, CET 3230

Students will learn the practice structural connection detailing in concrete and steel structures.

CET 4310: Stormwater Management and Erosion Control

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CET 3130, CET 3130L

Corequisite: CET 4310L

Study of rain distributions, run-off generation, peak flow estimations, hydrograph generation, as well as stormwater conveyance systems. This course also includes the study of structures and best management practices for erosion control to maintain or improve water quality.

CET 4310L: Erosion Control Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: CET 4310

Student applies the process for the selection and implementation of best management practices in erosion control. Students will visit operating stormwater retention facilities to assess the implementation of outlet structures to reduce erosion control.

CET 4320: Unit Operations in Environmental Engineering

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3130 and CET 3320

Study of the unit operations for advanced water and water waste treatment. Standard laboratory tests with accompanying reports are included. Topics include membrane processes, carbon absorption, air stripping, nutrient removal and sludge treatment.

CET 4330: Solid Waste Management

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3320

Study of management and equipment alternatives in solid waste generation, collection, processing, transferring, transporting and disposal. Consideration of legislation, regulation and management of solid wastes. Activities include field trips and a municipal solid waste landfill design with both oral and written project reports.

CET 4331: Highway Design

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3510, CET 3510L

A continuation of the highway design concepts introduced in Transportation Systems. The changing role of the highway designer and the impacts of GIS on the design process will be examined. Design projects will be used to reinforce material studied.

CET 4340: Air Pollution Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3320

Global and local effects of air pollution, pollution sources, emission controls, meteorology, plume dispersion and rise, particulate, sulfur oxides, nitrogen oxides, air quality and emission standards, and control systems and devices.

CET 4410: Foundation and Retaining Wall Design

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3410

This course presents the basic concepts and fundamental principles that are necessary to understand

the standard methods of foundation and earth retaining structure design. Students will be encouraged to use Excel spreadsheets to solve foundation engineering design problems. Course topics will include shallow foundations, mat foundations, pile foundations, conventional retaining walls, braced excavations, mechanical stabilized earth walls and soil nail walls.

CET 441 I: FE Exam Preparation - Civil Discipline

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: Senior Standing or consent of the Department Chair.

A review of the civil engineering technology discipline and associated math and sciences in preparation for the Fundamentals of Engineering exam. (Not for credit for CET and Surveying and Mapping majors).

CET 4418: Engineering Geology

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CET 3301, CET 3302

Introductory geology, including rock types, geneses, formations, strength, permeability, and weathering. Investigation of the effects of geologic structure, groundwater, rock properties and mineralogy on design and construction of highways, buildings, tunnels and dams. Problems of construction excavation and de-watering, tunneling methods, evaluation of slope stability and determination of geologic substructure through use of maps and subsurface investigations.

CET 4420: Earth Dam and Levee Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CET 2110 and CET 3410

Earth dam and levee failures are important issues engineers must consider during the design and operation of the structure. Factors such as internal erosion and piping occurrences caused by seepage can lead to failure, resulting in a disaster. Levee analysis becomes an important topic as the infrastructure ages. This course will cover fundamentals of seepage, stress, deformation and overall stability issues in water retaining structures under unsaturated conditions, with fluctuating water tables, and under rapid draw down scenarios. Students will apply the fundamentals to the design of earth dams and levees, and perform risk analyses.

CET 4430: Slope Stability

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CET 2110 and CET 3410

This course focuses on empirical and numerical analytical methods to evaluate and predict landslide failure behavior. Topics will include limit equilibrium slope stability analysis, including Bishop, Janbu, Spenser, Morgenstern-Price methods, and effects of water on slope stability. Students will review case studies and examine initiation, development, and failure of slopes. The course will include the use of finite element, Program SLOPE/W, and Excel spreadsheet applications.

CET 4450: Pavement Design and Maintenance

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3301, CET 3302, CET 3321

A study of the methods used to determine thickness and composition of the components of both flexible and rigid highway pavements. Class work will also include evaluation of paving materials, design of pavement drainage systems recognition of pavement distress, and the design of repair measures. Standard techniques and computer software such as that of PCA, ACPA, the Asphalt Institute and AASHTO will be utilized in pavement thickness design.

CET 4484: Hydraulic Analysis and Design

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3343

Applies principals of fluid mechanics to the design and analysis of hydraulic systems. The course emphasizes open channel flow and addresses topics of interest to the Civil Engineer. Topics include hydraulic grade line calculations, pump design, culvert analysis and design, base flood elevation studies using HEC-RAS, non-uniform flow, gutters and inlets, water distribution, open channel design.

CET 4510: Transportation Network Design

4 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: CET 3510

A study of the principles and concepts employed in the design of multi-modal transportation networks. Topics include: interaction of multi-modal systems, terminal design, ports and harbors, airport design, and mass transit. Design projects will look at solutions to network problems facing metropolitan Atlanta.

Coles Scholar

CSCH 4010: Applied Leadership in Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Admission to Coles College of Business and admission to the Coles College Scholars program; Non-business Majors: Not available to non-business majors.

This course focuses on leadership as an inward and personal journey of service to others and requires students to engage in an in-depth self-examination of skills, personality, and attitudes to increase self-awareness of leadership competencies. Students will be exposed to leadership cases as well as interact with business community leaders to develop insights and then apply this for their personalized leadership development.

Notes: This course is the first of the five required courses for the Coles Scholars Program.

CSCH 4020: Critical Thinking and Decision Making

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4010; Non-business Majors: Not available to non-

business majors.

In this course, students are exposed to critical thinking and decision-making theory, methodology and tools. In addition to the theory of knowledge and the "ways of knowing," students will learn to identify key assumptions, evaluate, and develop and test appropriate hypotheses within the context of large and small problem-solving situations. There is an emphasis on a variety of problems, including those that deal with uncertainty, equivocality, and factors that are measurable and hard to quantify.

CSCH 4030: International Immersion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4020; Non-business Majors: Not available to non-business majors.

In this course, students will participate in a multi-week international experience designed to immerse students in an international business environment focused on student learning. Students will utilize leadership and teaming skills learned in CSCH 4010 and problem-solving and decision-making techniques practiced in CSCH 4020 to work together as a team to solve community problems in another country. Through this active participation in the international experience, scholars will gain an understanding of the cultural challenges and opportunities faced by organizations working in a global environment.

CSCH 4040: Consulting & Change Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4020; Non-business Majors: Not available to non-business majors.

This course focuses on the processes and actions used by experts to help others improve their business practices. This course will introduce students to both the processes, such as contracting, data gathering, and delivery, as well as the human interactions that underlie effective consulting engagements. The course will draw on a variety of resources and guest speakers in the classroom, as well as applied experiences at local firms where teams of students will engage and work with "clients" on current challenges faced by the firm.

CSCH 4050: Business Intelligence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: Admission to Coles College of Business, admission to the Coles College Scholars program, and CSCH 4040; Non-business Majors: Not available to non-business majors.

This course will walk students through the process of defining problems in business, developing "hypotheses," determining appropriate data for testing, collecting the data, and analyzing it. The course will leverage the concepts from CSCH 4020, as well as statistics background, and modern technology for dealing with datasets, large and small. There will be a focus on dealing with large data sources, planning business strategies for collecting data over time, and how best to share results.

Communication

COM 1100: Human Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is an overview of the communication discipline that identifies and explores the various components, situations, and channels involved in the communication process. The main objective is for students to critically assess and improve their personal and professional communication skills with others.

COM 2020: CSI: Communication Sources and Investigations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course introduces the approaches and paradigms used in communication research. Emphasis is placed on locating, reviewing, and evaluating communication research studies found in academic publications; the basic structure and function of a literature review; and communication research ethics. This course provides practical experience using the American Psychological Association formatting style.

COM 2033: Visual Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101 and ENGL 1102

COM 2033 is an introduction to visual communication using perceptual, physiological, psychological, cultural, and semiotic concepts. The course focuses on visual awareness and processing as key elements in effective communication.

COM 2129: Public Speaking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all English and Mathematics Learning Support courses, if required.

This course covers methods and practice in effective oral communication with an emphasis on speech preparation and presentation.

COM 2135: Writing for Public Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101 and ENGL 1102

This course covers application and practice of writing form and style particular to communication industry careers, such as journalism, public relations and human resource areas. Includes weekly writing assignments.

COM 2230: Introduction to Mass Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of the various genres of mass media such as books, magazines, newspapers, radio, television, film, Internet and others. Examines the development, roles, functions, problems and criticisms of specific media from a global context.

COM 2240: Communication Law, Ethics and Diversity

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course provides an overview of law, ethics and diversity in mass media. It examines the basics of freedom of expression and press laws in the United States including freedom of information and access to government records. The course analyzes several approaches to ethics in media, journalism and public relations. It also examines diversity in the mass media, journalism and public relations industries.

COM 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all English Learning Support courses, if required.

Students will explore selected special topics relevant to the mission of the Department of Communication.

COM 3315: Interviewing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Methods and practice in situational interviewing, including selection, sales, journalistic and media interviews. Examines roles and functions of both interviewee and interviewer.

COM 3320: Health Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102; must be a declared Communication or Public Relations major. Non-majors: permission of the instructor.

This course introduces theoretical and applied aspects of health communication. Current health issues are examined in varied communication contexts, such as interpersonal, group, organizational, and mediated communication. This course analyzes provider-patient communication, intercultural communication and health beliefs, and health messages in the media. A variety of contemporary public health issues are presented. The course also examines the effectiveness of prevention messages using identified communication strategies.

COM 3350: Editing for Today's Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2135 and Declared Communications, Journalism or Public Relations Major

This course explores the role of the copy editor in print, broadcast, and online media, with a focus on developing the skills required to be an effective editor in the age of convergence. Through lecture, guest speakers, and in-class and out-of-class assignments, students will gain effective experience in copy editing, and the use of graphics, type, headlines, and layout to produce effective news and feature stories, and public relations materials.

COM 3398: Internship in Communication

1-9 Credit Hours

Prerequisite: Approval of departmental internship coordinator and eligibility based on the following criteria: junior standing (60 + credit hours) at least a 2.5 GPA, and at least one semester of communication coursework successfully completed at Kennesaw State University. Must be a declared Communication, Journalism or Public Relations major.

An internship is a supervised, credit-earning work experience of approximately one semester with a previously approved business firm, private agency, or government agency. Up to nine communication internship hours may be earned for credit. To help students build their resume, a maximum of six credit hours may be earned at one internship site per semester. If a student chooses a second internship, he or she must take an internship with another organization.

COM 3435: Communication Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2135 and COM 2020

This is an advanced course on the nature of academic inquiry in communication, the structure and methodology of professional and academic research, and the resources available for access to published research.

COM 4100: Directed Applied Research

1-3 Credit Hours

Prerequisite: COM 3435 and consent of the instructor and department chair; must be a declared Communication or Public Relations major.

COM 4100 offers students an opportunity to investigate communication-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies are identified by the faculty's needs and expectations.

Notes: The amount of work expected per student is based on the number of assigned credit hours.

COM 4400: Directed Study

1-3 Credit Hours

Prerequisite: 60+ credit hours; must be a declared Communication or Public Relations major.

This course focuses on specific topics of an advanced nature not in the regular course offerings.

COM 4480: Communication Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 3435 and 60+ credit hours; must be a declared Communication, Journalism or Public Relations major.

This course is an in-depth and diversified examination of various theories analyzing and describing the human communication process from different perspectives, including interpersonal, organizational and mass communication.

Notes: Offered as an online course.

COM 4490: Special Topics in Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 45+ credit hours; must be a declared Communication, Journalism or Public Relations major. Non-majors: permission of the instructor.

This course consists of selected special topics of interest to faculty and students.

COM 4499: Senior Thesis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 3435 or COM 4480

The senior thesis is designed to allow students to apply course work to professional issues. The course culminates in the student's preparation and presentation of an undergraduate thesis or creative project.

Notes: This course may serve as the capstone for any of the four concentrations.

JOUR 3310: Concepts in New Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230

This course is an analysis of the content, process and distribution of new media, including Web-based, network-based, and CD-ROM based products. Students examine, evaluate and prepare material for informational, educational, and/or entertainment new media as well as explore the process of computer-assisted communication.

JOUR 3330: News Reporting and Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2135 and COM 2230

This course is an introduction to the ways and means of developing, gathering, writing and editing factual and editorial copy. The course examines news personnel functions, reporting and interviewing techniques, ethical and legal considerations, along with news-writing practice surrounding the above.

JOUR 3340: Digital Media Production

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230 or ORGC 2205; must be a declared major in the School of Communication and Media; Non-majors: permission of the School.

This course focuses on the application and impact of digital media technology and how it has changed the production experience in a journalistic context. The course addresses the principles of shooting, sound characteristics, ergonomics, and basic techniques for field recording (time-code, miking, shot composition, and mixing). Audio and video formats are examined in the context of non-linear post-production.

JOUR 3360: Photojournalism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3340; must be a declared Communication, Journalism or Public Relations major.

This course introduces the fundamentals of how still photography is used to document our world in a public sphere. Students will learn the skills, theory, aesthetics and ethics of newspaper, magazine and online photojournalism. Visual storytelling from a single picture to a multi-image photo essay is explored. A digital portfolio is produced and presented at the end of the term.

Notes: Personal digital camera required.

JOUR 3395: Journalism Study Tour

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230 and 30 credit hours; must be a declared Communication, Journalism or Public Relations major.

This course offers students the opportunity to learn about news gathering, production, and presentation in one of the nation's largest media markets. Students gain first-hand exposure to news professionals, operations, and offices. Students meet for an intensive one-week preparation class to better understand the structure and function of the professional newsroom. They visit outlets for a hands-on look at the news gathering process. Students incur additional travel expenses including the instructor's travel expenses.

JOUR 4300: Topics in Journalism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3330 or permission of the instructor; must be a declared Journalism, Communication or Public Relations major. Non-majors: permission of the instructor.

This course offers theoretical and applied approaches to journalism and citizen media strategies and tactics needed for the profession. Sample topics may include social media and journalism, sports reporting, international journalism, ethics in journalism, public affairs reporting, and innovation and entrepreneurship in journalism. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

JOUR 4410: Investigative Reporting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3330; must be a declared Communication, Journalism or Public Relations major.

This course teaches students how to move beyond basic news reporting and how to develop strong story ideas, report them thoroughly and write them in compelling and impactful ways. The course examines how to uncover electronic and paper-based documents and use open records laws as part of investigative journalism.

JOUR 4412: Sports Reporting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Declared major in the School of Communication and Media, JOUR 3330, and JOUR 3340. Non-majors: Permission of the School

In this course students prepare for and practice writing short and long form stories about sports contests at the high school, college, and professional levels. Students produce stories in multi-platform formats including video, photography and social media use. This is an advanced reporting course aimed at students who are sports enthusiasts with the goal of becoming professional sports reporters.

JOUR 4420: Advanced Media Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3330; must be a declared Communication, Journalism or Public Relations major. Non-majors: permission of the instructor.

The course includes methods and practices for writing print and Internet style long-form feature stories. The course focuses on in-depth interviewing skills and query letter writing, as well as understanding multimedia storytelling.

JOUR 4445: Advanced Digital Audio Production

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3330 and JOUR 3340, 90+ credit hours; must be a declared Communication, Journalism or Public Relations major.

Advanced Digital Audio Production focuses on producing, writing and storytelling for audio in a journalistic context. The course is designed to teach students how to write scripts and produce radio promotions, commercials and news stories. The course surveys trends in the radio industry including traditional broadcast, digital, and satellite radio as well as podcasting and audio streaming of content.

JOUR 4450: Video News Production

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3330 and JOUR 3340; must be a declared Communication, Journalism or Public Relations major.

This course is designed to teach students electronic field production, including single and multiple camera operations; advanced field camera operations; tape-to-tape editing; editing techniques;

single/multiple camera continuity, and scripting in a journalistic context. The students must have a fundamental understanding of production operations before enrollment.

JOUR 4470: Media Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230 and POLS 1101; must be a declared Communication, Journalism or Public Relations major. Non-majors: permission of the instructor.

This course is an in-depth examination of the existing legal structure within which the media operates and the antecedent statutory and case law through which this structure has evolved. The course also addresses ethical concepts and considerations surrounding the media.

JOUR 4488: Multi-Media Visions of Community (Capstone)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 3435 and one of the following: (JOUR 3360, or JOUR 4412, or JOUR 4445, or JOUR 4450); must be a declared major in the School of Communication and Media

This course is informed by social networking and civic, citizen and community journalism applications and theories. Student-driven teams produce multi-media journalistic reflections of community life and institutions. The students, ideally working with diverse sets of community members, choose the best methods, tools and platforms for telling their stories and justifying their choices. This is the capstone course showcasing what students have learned as a Journalism and Emerging Media major.

MENT 3100: Fundamentals of Media and Entertainment Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230

This course is an introduction to media and entertainment studies. "Media studies" topics include not only media institutions, but also the context, history, and economics of media; meaning and ideology; effects on audience behavior; public life; and globalization. "Entertainment studies" focuses on any communication function used for entertainment purposes, including television, film, music, video games, sports, travel/tourism, museums, and theme parks. This course will address the history, challenges, trends, and career options in these areas.

MENT 3326: Global Media Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100; must be a MENT major

This course explores mass media and culture from a global perspective. Students analyze international communication theories, global communication infrastructure, the global media marketplace, and international communication and the internet. Students also examine specific communication systems, both democratic and authoritarian, and disseminated in a global context. International media products such as film, music, radio, and TV programming, online content, and advertisements are also covered.

MENT 4424: Uses and Effects of Mass Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100; must be a declared major in the School of Communication and Media

This course examines research findings and commentary about mass media impact and use in the United States. An exploration of what mass media "do" to users and what users "do" with the mass media, and why these effects and uses are thought to occur. This course is useful for students interested in graduate work in mass media, professional media careers, media literacy, or more conscientious use of mass media and awareness of possible effects on themselves or others.

MENT 4425: Gender, Race and Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100; Must be a declared major in the School of Communication and Media. Non-majors: Permission of the School required.

This course is an examination of mass media portrayals of gender and race, from years past to present. Students analyze media artifacts, identify recurring themes, and explore research about the societal effects of stereotypical media portrayals.

MENT 4430: Media Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100; Must be a declared Major in the School of Communication and Media. Non-majors: Permission of the School required.

This course is a comprehensive examination and analysis of the structure, personnel, planning, operations, economics and editorial broadcast, production, advertising, and public relations companies as well as new media.

MENT 4434: Topics in Media Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100; must be a declared major in the School of Communication and Media. Non-majors: permission of the instructor.

This course offers theoretical and applied approaches to media studies problems and issues. Sample topics may include media literacy, media and society, social and digital media, children and media, celebrity media culture, and courses based on various genres of electronic media. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

MENT 4436: Topics in Entertainment Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MENT 3100

This course offers theoretical and applied approaches to entertainment studies topics, challenges, and trends. Sample topics may include entertainment industries and properties, fandom and fan studies,

sports as entertainment, arts and leisure entertainment, interactive entertainment, travel and tourism as entertainment, global entertainment, and careers in entertainment. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

MENT 4444: Film and Video Structure and Process

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60+ credit hours.

An examination of the television and motion picture industries, covering such factors as development, pre-production, the production process, post-production and distribution. Emphasis will be placed on the managerial aspects of the process and will include the institutional/instructional video market.

MENT 4464: Documentary Filmmaking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3340

This course is designed to enable students to develop a critical, aesthetic, and ethical approach to visual representation. Through selected documentary viewings, discussions, lectures, and the development and completion of a final project, students learn the necessary processes for producing documentary films. The course culminates with a class production of a short documentary on a topic approved by the instructor. Historical, theoretical, and methodological elements of documentary production are highlighted.

MENT 4485: Media & Entertainment Studies Capstone

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JOUR 3340, MENT 4424, and COM 4480. Must be a MENT major.

This course is the capstone course for Media and Entertainment Studies majors. Students complete a theoretical or applied project during the semester focusing on theoretical/methodological concerns in media and entertainment and their implications for our understanding of media in society. The course culminates in a paper/project that integrates, critiques, extends, and applies knowledge gained from prior media and entertainment courses. Students present their own projects and contribute to substantive discussions of presentations by other students.

MENT 4495: Media and Entertainment Study Tour

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60+ credit hours and MENT 3100; must be a declared MENT major

This course offers students the opportunity to learn about the fields of media and entertainment by visiting some well-known media/entertainment properties and corporations. Students gain firsthand exposure to the wide range of careers in these fields and the skill sets necessary to succeed in the industry. Students meet for an intensive one-week preparation class to better understand the structure and function of media and entertainment companies; the second week will be on-site at various locations.

ORGC 2030: Careers in Organizational Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

As career preparation, this course examines occupational industries, job roles, and professional skills relevant to the organizational communication course discipline. The learning activities help students articulate goals and synthesize resources, strategies, and activities to chart a realistic career path. Additionally, students self-assess career readiness through seven competencies with a prospective professional association or mentor, and identify post graduate education or training options for career development.

ORGC 2205: Introduction to Organizational Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is an introduction to methods and applications of basic theories, interactive structures, and directions within various organizational environments.

ORGC 3325: Intercultural Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102; Must be a declared major in the School of Communication and Media. Non-majors: Permission from the School of Communication and Media.

A study of cultural and communication variables that impact the interaction process between peoples. Intercultural communication is examined during the time communication participants share ideas, information, persuasion and emotions.

ORGC 3345: Team Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ORGC 2205 and 60+ credit hours; must be a declared major in the School of Communication and Media. Non-majors: Permission of the School of Communication and Media.

This course is a study of input, process and output variables in small group discussion. The emphasis is on participation, observation and evaluation of various discussion methods.

ORGC 3376: Interpersonal Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Theory and application of communication concepts involving interpersonal relationships and contexts.

ORGC 3459: Communication and Conflict

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102; must be a declared major in the School of Communication and Media. Non-majors: Permission of the School of Communication and Media.

This course introduces a model of effective conflict management in organizations and other contexts via appropriate communicative strategies. The model proposes that our perspective of dealing with conflict determines our approach to conflict situations. This course provides students with practical knowledge for understanding the benefits of conflict, recognizing its evolution, and applying various strategies for dealing with different people in a variety of contexts.

ORGC 4344: Organizational Training and Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ORGC 2205 and 60+ hours; must be a declared major in the School of Communication and Media. Non-majors: Permission of the School of Communication and Media.

This course covers methods and practice in communication training and development for organizations including pre-assessment, writing objectives, training techniques, post-training evaluation, feedback, implementation. The emphasis is on communication processes and outcomes for the trainer and trainee plus communication skill development within training modules.

ORGC 4440: Leadership Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ORGC 2205 or COM 2230; Must be a declared major in the School of Communication and Media. Non-majors: Permission of the School of Communication and Media.

Leadership Communication distinguishes leadership as an influential message-centered process. Based on this perspective, the course examines the variables of message exchange (communicator role, message content and meaning, media, context, and culture) as they impact organizational goal achievement. Eight major communication approaches are used to explain leadership. Special attention is given to understanding communication theory and extending social science research.

ORGC 4455: Organizational Communication Audit (Capstone)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ORGC 2205 and COM 3435 and 90+ credit hours; must be a declared major in the School of Communication and Media.

This course is the study and application of the organizational communication assessment process used by consultants, trainers and managers. In this capstone course, students conduct a communication audit for a local company and develop a written analysis of the organization's internal communication patterns.

PR 3335: Public Relations Principles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2230

An introduction to the history, role, and functions of public relations, including public relations theory, ethics, and industry and career issues.

PR 3355: Public Relations Cases

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PR 3335; must be a declared Communication major.

This course examines basic roles and functions of messaging strategy in promoting organizational goals. A case study approach emphasizes theory and methods for effective communication with diverse organizational publics, including the mass media, employees, consumers, financial stakeholders and special interest groups.

PR 3375: Public Relations Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Communication Major AND PR 3335

This course offers practice in writing public relations applications, including news releases, public service announcements, and newsletter articles. Students create a portfolio of writing samples.

PR 3380: PR Strategies and Tactics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Communication Major AND PR 3335

This course examines the application of strategies and tactics used to achieve objectives of a public relations plan. Students learn, and practice foundational skills and techniques used in the professional practice of public relations, such as developing effective communication strategies and tactics, media relations, media training, distribution of news and information, special events and the use of photos, graphics and video.

PR 3385: International Public Relations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PR 3335; must be a declared Communication major

This course introduces students to the global perspective of public relations while emphasizing corporate and agency public relations. Students learn and apply concepts of planning, research and international or cultural communication in the field of public relations.

PR 3429: Persuasion Methods and Strategies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course provides a study of the theories, methods, applications and implications of persuasion from the days of Aristotle to today's political and commercial arenas. The course explores the practice of changing attitudes and opinions via non-coercive means.

PR 4210: Social Media for Strategic Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PR 3335 or JOUR 3330 and declared Communication, Journalism or Public Relations Major.

Students learn theory and practice of social media in a professional, strategic communication setting, with an emphasis on the connection between traditional best practices and emerging techniques.

PR 4405: Digital Publication Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 2135 and Communications, Journalism or Public Relations major.

This course explores digital publication design in the practice of public relations and strategic communication. In addition to principles of design, including the use of photography and graphics, students learn to prepare content and communicate strategic messages through coordination of text, images, and strategic design. Graphic design software and other online tools are used to develop an understanding of visual communication strategies and skills to create publications that raise awareness, affect attitudes, and influence behavior.

PR 4415: Topics in Public Relations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Communication Major and PR 3335 or permission of School

This course offers theoretical and applied approaches to public relations strategies and tactics needed by public relations professionals. Students will learn media relations, social media and public relations, special events coordination, entertainment public relations, and ethics and public relations. Semester topics will vary. This course may be taken up to two times for a total of six credit hours as long as the course content differs each semester the course is taken.

PR 4460: Crisis Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: COM 3435 plus 60 credit hours; must be a declared Communication major. Non-majors: permission of the instructor.

PR 4460 provides students insights regarding key concepts, theoretical perspectives, essential skills and abilities, and critical thinking and problem solving skills necessary for effective crisis management within organizations. Topics include issues management, risk management, relationship management, crisis planning and preparation, case studies, and developing crisis management plans.

PR 4465: Public Relations Campaigns (Capstone)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Communication Major AND PR 3375 and COM 3435 and 90+ hours

This course is the study and application of the campaign planning process from inception to evaluation. The class functions as an agency, and student groups develop a strategic communication campaign plan for a campus or community organization.

Notes: Capstone course to be taken last in concentration.

PR 4495: Public Relations Study Tour

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Communication Major and PR 3335 and 60+ credit hours

This course offers students the opportunity to learn about integrated communications by visiting some of the nation's most well-known public relations agencies. Students will gain firsthand exposure to the wide range of services provided by the nation's top communication professionals. Students meet for an intensive one-week preparation class to better understand the structure and function of public relations; then the class will visit the agencies for a hands-on look at the communication process. Students will incur additional travel expenses, including the instructor's travel expenses.

PR 4605: Magazine Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PR 3375 or JOUR 3330 or PR 4405 and Approval of Application by Instructor

This course provides students with a working knowledge of the processes involved in the development, preparation and distribution of a major multi-platform publication. Students are involved in all facets of the magazine publication, including research and information gathering, writing, editorial functions, photography, layout and design, and promotion and advertising.

PR 4670: Crisis Leadership Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours, COM 3435, and be a declared Communication major. Non-majors: 60 credit hours and a comparable research course in another major.

Leaders need communication skills and requisite knowledge to guide organizations through the tumultuous crises of the future. This course addresses numerous content areas, including: factors involved in decision-making under pressure; training and organizational skills in crisis management communication as a core competency; and leading in local and transboundary crises through an integrated approach for organizations with different decision-making structures, different resource commitments to crisis preparation and response, and different communication and cultural strategies.

Computer Engineering

CPE 1000: Computer Engineering Fundamentals

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course provides an introduction to Computer Engineering and to KSU including an introduction to the CPE faculty, an overview of career opportunities, available campus facilities, student organizations, etc. Advising and course planning will be covered. Some of the skills necessary for CPE students will also be introduced.

CPE 3000: Computer Organization and Interfacing

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 1190, EE 2501, and Engineering Standing

This course will introduce the students to the fundamental concepts of computer organization including

basic register storage, ALUs, and state machines. In addition, we will study how assembly language is used to drive this architecture and explore fundamental hardware operations such as shifting, bit manipulation, and bit testing. Interfacing our architecture to external systems will also be discussed.

CPE 3020: VHDL Design with FPGAs

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: EE 2501 and Engineering Standing

This course will explore the design and development of synchronous and asynchronous machines using VHDL. VHDL is an industry standard design language used to create complex embedded digital systems in programmable devices such as FPGAs and CPLDs. This course will explore design simulation, synthesis, and timing analysis. Physical configurations for FPGAs and CPLDs will also be explored.

CPE 3030: Advanced Embedded Design

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Engineering Standing

Concurrent: CPE 3000

This course will introduce the students to advanced embedded system design concepts. In addition to learning linux fundamentals, students will explore advanced embedded design concepts such as multithreading and thread synchronization, complex interfacing of digital and analog sensors, and the use of mutexes/semaphores for managing shared resources.

CPE 3040: Interfacing and Communications

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CPE 3030, PHYS 2212, and Engineering Standing

This course is a study of computer peripheral interfacing and communications. Students will study topics in order to be able to interconnect devices and communicate with a variety of peripherals. Serial interfacing protocols will be covered with respect to connecting graphic cards, memory systems, keyboards, and other devices. Data communications principles will be studied including signaling, channel capacity, and bandwidth considerations.

CPE 4010: Sensors, Actuators, and Integration

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CPE 3030, PHYS 2212 and Engineering Standing

This course provides an introduction to the theory and applications of modern sensors and actuators. The mathematical and physical principles that underlie the operation and uses of various types of sensors and actuators as well as the acquisition, processing, and driving of signals associated with these devices is explored. Sensory- and actuator-based devices interfaced with embedded systems are used to augment the theoretical concepts taught.

CPE 4020: Device Networks

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: CPE 3030 and Engineering Standing

This course provides an introduction to basic networking theory, protocols and technologies and their use in the internet working of embedded systems. Various networking interface technologies (wireless and wireline) are studied from a conceptual, hardware, and programmatic perspective; the learning experience is augmented via the design and implementation of practical applications using modern Single Board Computers (SBC) and peripheral devices. The concept of the Internet of Things (IoT) is interwoven throughout the course in order to provide the student with a clear grasp of the evolution of such networked devices and how they can be controlled locally, remotely, and within the "cloud."

CPE 4040: Data Collection and Analysis

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CPE 3030, MATH 2335, MATH 2332 and Engineering Standing

This course will provide an introductory look at concept and techniques in the data collection and analysis. After covering the introduction, the abstract data types and use of standard data structures, the techniques used to implement numerical algorithms, visualize and process the data, evaluate and validate prediction models and various implementation platforms (computer architectures) for efficient data analysis will be covered. By the end of the course participants should have acquired the skills to plan and execute data collection and analysis campaigns in technical application scenarios.

CPE 4800: Senior Project Proposal

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CPE 3030, Senior Status, and Engineering Standing

This course involves an in-depth examination of the principles and methods associated with the engineering design process. Students will be grouped into design teams where the engineering design principles and methods are put into practice in the developing of a computer engineering project. The final product for each design team will be a project proposal that will be assessed via design review.

CPE 4850: Senior Project Design

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: CPE 4800

Corequisite: none

This course will require a design team to complete the computer engineering project they proposed in the senior project proposal course. The steps to completing this project will include building a prototype of the system/device, programming this system/device, and testing this system/device. The design team will also be responsible for drafting the project report, demonstrating that the system/device functions according to specifications, and making an oral presentation of the project.

CPE 4850: Senior Project Design

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: CPE 4800 and Engineering Standing

This course will require a design team to complete the computer engineering project they proposed in the senior project proposal course. The steps to completing this project will include building a prototype of the system/device, programming this system/device, and testing this system/device. The design team will also be responsible for drafting the project report, demonstrating that the system/device functions according to specifications, and making an oral presentation of the project.

Computer Game Design and Development

CGDD 2002: Fundamentals of Game Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course presents an overview of the history of computer games and the theory of gaming. Topics include game genres, content, patterns, playability, suspension of disbelief and immersion, storytelling, and game balance and fairness. Students are required to analyze historic and current games and must also develop a prototype of an original game.

CGDD 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Special topics selected by the CGDD Department. The course covers special topics at the intermediate level that are not in the regular course offerings.

CGDD 3103: Application Extension and Scripting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CGDD 2002 and (CS 1302 or CSE 1302 or IT 1324)

This course provides an introduction to the use and extension of applications for content creation and management. Both the theoretical as well as applied aspects of extensible application architectures and plug-ins are covered. Existing and emerging scripting languages will also be discussed extensively, and programming in these scripting languages is covered. Students will explore and utilize current applications and must create extensions to these applications.

CGDD 4003: Digital Media and Interaction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CGDD 3103, CS 3304, and SWE 3643

This course explores how digital media is created and utilized within computer games and simulations. Topics include sound, video, text, images, character modeling, animation, game world and level generation (2D and 3D), and current and emerging interaction techniques. Students are required to work in teams to produce a multimedia term project.

CGDD 4113: 3D Modeling and Animation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

This course explores the theory and application of 3D geometric model generation and animation. Topics include mesh and Non-uniform Rational B-Spline (NURB) modeling, textures, subdivision and levels of model detail, rigid/constrained body dynamics, and non-rigid/fluid dynamics. Students will be required to develop and animate a complex model, and a significant project is required

CGDD 4203: Mobile & Casual Game Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CGDD 4003

This course explores the segments of mobile (handheld, PDA and cell-phone) and casual gaming. Aspects of mobile hardware resources such as smaller memory, limited processor capabilities, and smaller displays are discussed; implications of such limitations to design and playability are also presented. Patterns of casual game development and emerging markets for casual games are also explored. A term project exploring mobile and/or casual game development is required.

CGDD 4303: Educational and Serious Game Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CGDD 4003

This course presents the history, theory, and current best practices of serious gaming and the use of serious games to educate and train. This course focuses on how to engage and entertain while presenting informative interfaces to the user. Topics include motivation, designing engaging learning interfaces, knowledge transfer from the game environment to the real world, assessment of learning, and instructional value. A design/prototype project is required.

CGDD 4313: Designing Online Learning Content and Environments

2 Class Hours 2 Laboratory Hours 3 Credit Hours

This course explores the use of online environments to present educational content for users. Topics include: interaction patterns in online learning environments, providing accessible and intuitive materials, multi-modal presentations of content, and the benefits and limitations of online learning environments. This course requires a critique of existing online environments and the development of a new learning environment, and human-computer interaction issues are an important consideration for this course.

CGDD 4490: Advanced Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the CGDD Department

This course offers advanced topics selected by the CGDD Department. The course covers special topics at the senior level that are not in the regular course offerings.

CGDD 4603: Production Pipeline and Asset Management

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: CS 4722

This course provides an in-depth exploration of the production of media content. This course covers elements of the production pipeline from concept to content generation to post production and quality assurance. Topics include asset creation and management, cost-quality tradeoffs, and phases of production. Current and emerging models of the production pipeline such as user-generated content and participation will also be discussed. A significant, team-based project is required.

CGDD 4703: Data Modeling and Simulation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2332

This course provides an introduction to modeling and simulation. Both the theoretical as well as applied aspects of simulation are covered. Topics include discrete-event simulation, states, transitions, model definition, model quality, input and output analysis, input distributions, experimental design, optimizing models, levels of model detail, cost-quality tradeoffs, verification, and validation. Students will be required to simulate a complex system which necessitates the creation of models. Students will explore and utilize a simulation API.

CGDD 4803: Studio

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: CGDD 4003

This course begins the studio experience and explores the application of game design and development in a structured environment; teams build applications utilizing best practices in software engineering including asset, project, configuration, and requirements management. Students in this Studio course will assume an apprentice position within their teams and learn from more senior students taking the Capstone course. This course involves weekly status, design, and development meetings.

CGDD 4814: Studio 2

1 Class Hours 9 Laboratory Hours 4 Credit Hours

Prerequisite: CGDD 4803

This course continues the studio experience from CGDD 4803 and further explores the application of game design and development in a structured environment; teams build applications utilizing best practices in software engineering including asset, project, configuration, and requirements management. Students taking this Capstone course will assume a senior position within their teams and provide mentoring to students taking the Studio course. This course involves weekly status, design, and development meetings.

Computer Science

CS 130I: Programming Principles I

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Corequisite: Math 1113

This course provides an introduction to computer science with a focus on object-oriented programming. Instruction centers on an overview of programming, problem-solving, and algorithm development. Specific topics include primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, using and designing basic classes, single dimension arrays with searching and sorting, Array Lists, and exception handling. The course also emphasizes developing correct code and the relationship between correct code and security.

CS 1302: Programming Principles II

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: CS 130I and MATH 1113

The second course in computer science provides coverage of more advanced topics of object-oriented programming. This includes the use of static variables and classes, inheritance and polymorphism, text files, recursion, and parameterized types. Elementary data structures (linked lists, stacks, and queues) are introduced to solve application problems. Graphical user interfaces and event driven programming are also introduced. Students must continue to use good programming style including proper documentation.

CS 1305H: Honors Programming Principles

4 Class Hours 2 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to the Honors Program and MATH 1113 (may be taken concurrently)

This course is an introduction to problem-solving methods that lead to the development of correct and well-structured programs. The course emphasizes object-oriented methods. Topics will include a variety of concepts and applications, such as inheritance, collections, exceptions, graphics, computational methods, and graphical user interfaces. The course also includes coverage of the fundamentals of computer systems.

CS 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor, major area committee, and department chair.

The course covers special topics at the intermediate level that are not in the regular course offerings.

CS 3223: Computer Architecture

3-0-3 Credit Hours

Prerequisite: and CSE 130I

A study of instruction set architectures; basic processor components such as control units, ALU's, and registers; memory; input/output; and performance enhancement using caches and pipelines. Design of

the major processor components is discussed in terms of the concepts presented in. Some coverage of assembly language programming is included.

CS 3304: Data Structures

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 2345, and CS 1302

This course introduces data structures, specification, application, and implementation. The case studies will illustrate how data structures are used in computing applications. The emphasis of the course is on linear and some nonlinear data structures and object oriented principles. Topics include: abstract data types, stacks, queues, lists, binary search trees, priority queues, recursion, algorithm efficiency, trees, heaps, hash tables, and analysis of search and sort algorithms and their performance for implementation and manipulation. The programming language to be used in this course is any standard high-level object-oriented programming language such as C++, Java, and Ada.

CS 3410: Introduction to Database Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CS 1302

Introduction to the database management systems, database processing, data modeling, database design, development, and implementation. Contrasts alternative modeling approaches. Includes implementation of current DBMS tools and SQL.

CS 3501: Computer Organization and Architecture

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: CS 1302

Introduction and overview of basic computer organization. Computer arithmetic: binary, hexadecimal and decimal number conversions, binary number arithmetic and IEEE binary floating point number standard. Basic computer logic: gates, combinational circuits, sequential circuits, adders, ALU, SRAM and DRAM. Basic assembly language programming, basic Instruction Set Architecture (ISA), and the design of single cycle CPU. Hardware security will be introduced.

CS 3502: Operating Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3501 and CS 3304

This course introduces the fundamental concepts and principles of operating systems. Topics covered include system performance, processes and threads, multiprogramming, scheduling, memory management, synchronization, deadlocks, file systems, Input/output systems. Additional topics: security and protection, network and distributed OS.

CS 4242: Artificial Intelligence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

The primary objective of this course is to provide a introduction to the basic principles and applications

of Artificial Intelligence. It covers the basic areas of artificial intelligence including problem solving, knowledge representation, reasoning, decision making, planning, perception and action, and learning – and their applications. Students will design and implement key components of intelligent agents of modern complexity and evaluate their performance. Students are expected to develop familiarity with current research problems, research methods, and the research literature in AI.

CS 4305: Software Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3410, CSE 3801, COM 1100

This course provides an overview of the software engineering discipline with emphasis on the development life cycle and UML modeling. It introduces students to the fundamental principles and processes of software engineering, including Unified, Personal, and Team process models. This course highlights the need for an engineering approach to software with understanding of the activities performed at each stage in the development cycle. Topics include software process models, requirements analysis and modeling; design concepts and design modeling; architectural design and styles; implementation; and testing strategies and techniques. The course presents software development processes at the various degrees of granularity.

CS 4306: Algorithm Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

Advanced algorithm analysis including the introduction of formal techniques and the underlying mathematical theory. Topics include asymptotic analyses of complexity bounds using big-O, little-o, omega, and theta notations. Fundamental algorithmic strategies (brute-force, greedy, divide-and-conquer, backtracking, branch-and-bound, pattern matching, parallel algorithms, and numerical approximations) are covered. Also included are standard graph and tree algorithms. Additional topics include standard complexity classes, time and space tradeoffs in algorithms, using recurrence relations to analyze recursive algorithms, NP-completeness, the halting problem, and the implications of non-computability.

CS 4308: Concepts of Programming Languages

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3501, CS 3304

This course covers the fundamental concepts on which programming languages are based and the execution models supporting them. Topics include values, variables, bindings, type systems, control structures, exceptions, concurrency, and modularity. Languages representing different paradigms are introduced.

CS 4322: Mobile Software Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302, SWE 3313

The course covers the concepts and practice of developing software on mobile platforms such as Android. Topics include UI Design for Mobile Apps, Resource Management for Mobile Apps, and

Deployment of Mobile Apps.

CS 4400: Directed Studies

1-3 Credit Hours

Prerequisite: Approval of the instructor, major area committee, and department chair.

This course covers special topics of an advanced nature that are not in the regular course offerings. Up to three hours may be applied to the major area.

CS 4412: Data Mining

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304 and CS 3310

This course covers fundamental data mining concepts and techniques for discovering interesting patterns from data in various applications. Topics include data preprocessing, data warehousing and OLAP, mining frequent patterns, classification, clustering, and trend analysis.

CS 4491: Advanced Topics in Computer Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in any prerequisite course. Prerequisite course(s) vary depending upon the topic.

This course provides the current and relevant topics in an advanced Computer Science area of interest to faculty.

Notes: It may substitute for a CS major elective.

CS 4504: Distributed Computing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3502

A course that introduces students to the fundamental principles common to the design and implementation of programs that run on two or more interconnected computer systems. The subtopics, which are based on these principles, include: distributed operating system and network protocols for process communication, synchronization, scheduling, and exception and deadlock resolution; understanding of client-server, web-based collaborative systems; parallel computing; concurrency issues; and API's for distributed application development. Several distributed computing environments, like MPI, PVM, and Java RMI are discussed and used in developing experimental projects in a cluster of networked computers.

CS 4512: Systems Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304, CS 3502

This course presents an introduction to systems programming in Linux/Unix. Topics include file I/O, process control and communication, threading, and network-aware systems programs.

CS 4514: Real-Time Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3502

This course covers the software-development life cycle as it applies to real-time systems. Alternatives: • Including labs that involve the use of a real-time operating system and an associated development environment, or • Modeling with UML, and object oriented simulation. Introduction to formal specification of real-time systems. A course project is required to be completed by the end of the semester.

CS 4522: HPC & Parallel Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304, CS 3502

This course will introduce parallel programming techniques for shared memory and distributed memory systems. Topics include threading, OpenMP, and MPI.

CS 4523: Programming Massively Parallel Processors

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304, CS 3502

A study of practical parallel algorithms with an emphasis on implementation and performance issues on massively parallel processors. Design and implement high performance computing applications using CUDA running on Graphics Processing Unit (GPU). Topics include heterogeneous parallel programming, hardware threading models, synchronization, parallel blocking algorithms, register allocations, memory performance, and inter-thread communication.

CS 4524: Cloud Computing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304, CS 3502

This course discusses the fundamental concepts and techniques of cloud computing. Students will develop an understanding of cloud computing architecture, Infrastructure as a Service (IaaS), Platform-as-a-Service (PaaS), Software as a Service (SaaS), Virtualization, and Application Development on Cloud.

CS 4612: Secure Software Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3501

This course covers the design and implementation of secure software. Some of the topics covered are the characteristics of secure software, the role of security in the development lifecycle, designing secure software, and best security programming practices. Security for web and mobile applications will be covered.

CS 4622: Computer Networks

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3501

This course covers computer networking and includes software application-related, protocol-related and security-related issues involved in the Internet. Topics include basic network structures, mechanisms for application-to-application communications, protocol layering, Internet addressing, unicast and multicast routing, connection establishment and termination, data flow and congestion control, and error handling. A specific protocol suite will be examined in detail. More advanced topics that build on the student's understanding of network protocols are also introduced, such as network security, mobile networks and the future Internet.

CS 4632: Modeling and Simulation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

This course covers the modeling and simulation of the structure and behavior of real-world systems using object-oriented discrete-event simulation techniques. The course emphasizes the modeling and computer programming perspective of simulation; design and implementation of simulation models. The fundamental concepts of object-oriented simulation are introduced. Model implementation will require programming in an object-oriented simulation language such as OOSimL, or in a general purpose programming language (Java or C++). Students will also be exposed to a commercial integrated simulation software tool: Arena.

CS 4712: User Interface Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302

A comprehensive study of techniques in design and implementation of user interfaces engineering. Topics include the foundation of human-computer interaction and interface related to software lifecycle, building a graphic user interface engineering, interaction devices and technologies, human-computer dialogue, cognitive models, usability, the design and development process, user interface management systems (UIMS), interface style and techniques, user learning, and diversity in interaction styles. Major research and the building of a working graphic user interface are included.

CS 4720: Internet Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304, (CSE 3153 or CS 3410)

This course introduces current technologies for modeling, designing, implementing, and developing Web applications. Topics include developing for the server and the client, programming frameworks, server administration and integration with databases. Practice will involve platforms and language such as Linux, Python, PHP, Ruby and JavaScript.

CS 4722: Computer Graphics and Multimedia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

The basic principles and practices of interactive computer graphics and multimedia systems are covered in this introductory course. The design and implementation of state-of-the-art computer graphic rendering and visual multimedia systems are the main part of the course. The sub-topics of the course deal with specific input/output hardware devices and their technology, software and hardware standards, programming methods for implementing 3-dimensional graphical applications and interactive multimedia applications, and a study and evaluation of the effectiveness of graphic/multimedia communications. A large component of the class is the building of a large-scale application.

CS 4732: Digital Image Processing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

This course discusses the following topics: Introductory concepts, Image formation and representation, Image Enhancement, Edge Detection, Image Transformation, Image Segmentation, Image Restoration, Image Morphology, Texture, Image Pattern Recognition, Skeletonization, Image Compression, Unsupervised Clustering and Image Analysis. At the end of this semester, students should be able to analyze digital images by implementing the algorithms taught in this course using Java, or C/C++ computer languages.

CS 4850: Computer Science Senior Project

1 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3502 and CS 4305

The course provides a capstone experience for CS majors to promote a successful transition to the work place or further academic study. Students will have the opportunity to practice essential project management skills and work with current software tools and technologies. Student teams will develop a project scope, project plan, document functional specifications, develop a design document, implement specified functions, provide weekly progress reports, give project presentations to the class, conduct final project presentation to the instructor and/or project sponsor, and provide a complete final report that includes documentation of all class activities. Each team will designate a team leader who is responsible for coordinating work tasks, team meetings, communications with the instructor and/or project sponsor, and team effort.

Computer Science Education

CSED 4416: Teaching of Computer Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1301 and ICT 2101

An examination and application of curricular issues, learning theories, teaching strategies, instructional materials, and assessment procedures for teaching secondary school computer science in the multicultural and diverse classroom.

CSED 4417: Computer Science Teaching Practicum

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in CSED 4416

Secondary school field experience in computer science teaching. Proof of professional liability insurance is required prior to school placement.

Computing and Software Engineering

CSE 1301: Programming and Problem Solving I

3 Class Hours 2 Laboratory Hours 4 Credit Hours

This course provides an introduction to computer science with a focus on object-oriented programming. Instruction centers on an overview of programming, problem-solving, and algorithm development. Particular topics include primitive data types, arithmetic and logical operators, selection and repetition structures, interactive user input, using and designing basic classes, single dimension arrays with searching and sorting, and two-dimensional arrays. Programming assignments focus on techniques of good programming style including proper documentation. The student is taught to efficiently design, code, and debug problem solutions.

CSE 1302: Programming and Problem Solving II

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in CSE 1301 or CS 1301

The second course in computer science provides coverage of more advanced topics of object-oriented programming. This includes the use of static variables and classes, multi-dimensional arrays, inheritance and polymorphism, text files and exception handling, recursion, and parameterized types. Elementary data structures (linked lists, stacks, and queues) are introduced to solve application problems. Graphical user interfaces and event driven programming are also introduced. Students must continue to use good programming style including proper documentation.

CSE 1311: C++ Programming for Engineers

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Upon completion of this course, the student will have the basic concepts of structured programming using C++. This will include basic syntax and semantics for sequence, conditional, and iteration control structures, as well as single dimensional arrays. The student will also be able to solve engineering problems by designing and modularizing their solutions with proper use of functions and usage of objects. The student will also understand the techniques of good programming style and how to design, code, debug, and document program solutions. This course is intended for Engineering Majors only

CSE 1312: Object Oriented C++ Programming for Engineers

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: CSE 1311

Upon completion of this course, the student will understand both abstraction and advanced programming techniques of object-oriented programming in C++. This will include learning about

abstract data types, multi-dimensional arrays, recursion, pointers and the STL. The student will be able to solve problems using objects, including designing and writing their own classes. The student will also understand the techniques of good programming style and software engineering concepts such as information hiding, re-use, use of symbolic debuggers, and separate compilation.

CSE 2300: Discrete Structures for Computing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CS 1301 or CSE 1301 or CSE 1321) and (MATH 1113 or (MATH 1111 and MATH 1112))

Coverage of discrete structures is crucial to any program in computing. This course covers propositional and predicate logic, proofs, set theory, relations and functions, algorithms and complexity theory, matrices, graphs and trees, and combinatorics. Throughout the emphasis will be on applications of these concepts in computing.

CSE 3153: Database Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 1324

The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.

CSE 3203: Overview of Mobile Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302 or CSE 1302 or CSE 1312 or IT 1324

This course explores the use and issues of mobile applications in business including information security issues, connecting to cloud computing services, and mobile interface and programming. A significant design or development project will be created in the course.

CSE 3801: Professional Practices and Ethics

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: CSE 1302 or CS 1302 or IT 1324

This course covers the historical, social and economic consideration of the discipline. It includes studies of professional conduct, risks, and liabilities, and intellectual property relative to the software engineering and computing professions. Software engineering/computing case studies will be used.

CSE 4983: CSE Computing Internship

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Senior standing or at least 20 major hours in a CSE degree program

This course helps students gain practical experience through real-world projects and professional work. Students will demonstrate an ability to apply computing principles and technologies relevant to their major in a specific real-world project jointly supervised by an industry mentor and a faculty advisor.

Students will work in a project team in an enterprise environment, demonstrating ethical behavior as a computing professional, an understanding of social, professional and ethical issues related to computing, and an ability to integrate the knowledge acquired in preceding courses. Communication skills and leadership are also evaluated as well as professional computing skills and knowledge.

Construction Management

CM 1000: Orientation to Construction and Development

1 Class Hours 2 Laboratory Hours 2 Credit Hours

An introduction to construction industry careers; an overview of construction industry sectors and the industry's impact on the economy; and discussion of the basics of the construction process. Also includes a preview of the construction degree curriculum and an overview of Kennesaw State University policies, procedures, and resources.

CM 2000: Construction Graphics

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 1000

A study of the fundamentals of graphic language used by construction professionals, with an emphasis on developing skills in expressing concepts in visual form and in reading architectural and engineering construction documents.

CM 2210: Introduction to Structures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHYS 1111

The study of basic structural design and analysis. Primary aim of this course is to develop and present structural concepts, introduce structural theory, provide a sound understanding of statics and strength of materials to establish a basis for understanding structural principles as it relates to building components.

CM 3000: Computer Applications in Construction

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 2000

An introduction to microcomputers and commercial software. Students learn DOS and Windows manipulations, spreadsheets, word processing, visualization, and presentation software by actively using tutorials and help screens in a structured laboratory setting. Scheduling and estimating software are introduced.

CM 3040: Building Information Modeling I

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: (CM 2000 and CM 3000) or (EDG 2160 and CE 2003)

A course on study of building information modeling for pre-construction applications. The course will enable the students to develop and modify building information models. It includes integration of

estimates and schedules with building information models. It also prepares the students to identify conflicts caused by architectural, structural, mechanical, plumbing, and electrical systems during pre-construction stages.

CM 3110: Residential and Light Construction Methods

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 2000 or EDG 2160 or EDG 1211

A study of materials, techniques, and methods used in residential and light construction. Foundations, wood frame and masonry structural systems, interior and exterior finishes, residential electrical, plumbing, and mechanical systems are included. Also included are residential building code requirements.

CM 3160: Construction Equipment

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Study of the basic principles, practices, and techniques used in the construction industry for selecting and managing construction equipment. Focuses on understanding the time value of money, estimating equipment ownership and operating costs, selecting the proper equipment for specific construction tasks, and estimating equipment production.

CM 3170: Heavy Construction Practices

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

Introduction to the various heavy construction systems such as roads, bridges, sewer/water treatment facilities, and other transportation systems. Topics include: contract analysis, work breakdown, equipment selection, site logistics planning, and project scheduling, cost productivity and performance management, quality control, and risk management.

CM 3180: Mechanical and Electrical Building Systems

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

A study of mechanical and electrical system types, how they are built, and how they affect the construction project. Topics will include air conditioning, heating, plumbing, fire protection, electrical power, electrical lighting, and building control materials and systems. The analysis of current construction drawings will be integrated into each topic.

CM 3190: Sustainable Construction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3180

This course will emphasize the techniques and methods of sustainable construction. Importance of a collaborative team effort from owners, architects, engineers, constructors, and consultants will be integrated into the course. Influences on the cost and schedule due to a sustainable construction project will be analyzed. Topics will include performance certification techniques for sustainable sites, water

efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation and design. MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be covered from a sustainable perspective.

CM 3210: Applied Structures

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CET 2200

A study of structural design analysis and design concepts used in steel and concrete construction. Topics include selection of structural systems and the design of columns, beams, and other structural components.

CM 3230: Heavy Materials & Temporary Structures

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CET 2200

Materials commonly used and the various methods employed with an emphasis on heavy, civil and highway construction. An introduction to the materials, methods, and techniques associated with the design of temporary structures used to support construction operations such as shoring systems, cofferdams, underpinning, slurry walls, and construction dewatering systems. Lab exercises of heavy construction operations with emphasis on productivity enhancement focusing on an integrated approach to planning, modeling, analysis, and design of construction operations, and the use of simulation models and other analytical tools.

CM 3260: Temporary Structures

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 2210

A study of structural design and analysis concepts of temporary structures used in the construction process. Topics include formwork design, scaffolding, and material handling equipment and staging.

CM 3270: Facility Management Strategies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students in this course will learn about the history, practice and profession of Facility Management (FM). Core competencies of the FM profession as detailed by key FM organizations such as IFMA, BIFM, and FMAA will be introduced and analyzed for similarities and differences. Students will also learn about the organizational, ethical, and leadership strategies for the delivery of facility management services.

CM 3280: Building Mechanical and Electrical Codes and Loads

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3180

Study of building mechanical and electrical system loads and applicable codes. Emphasis on how they affect the construction project. Topics will include air conditioning, heating, plumbing, fire protection, electrical power, electrical lighting and building control systems. The analysis of current construction

drawings will be integrated into each topic.

CM 3290: Facilities Management Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3270

Students in this course will study the methods and techniques for managing facilities. The core consists of knowledge on process and techniques for strategic planning, estimating and budgeting, life cycle costing, and integrated decision making. Students also learn about the role and responsibilities of facility manager in different business forms and organization models. FM technology and its future is discussed and explored.

CM 3310: Real Estate Development Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100, CM 3110

The course provides an overview of the land development process and provides a foundation for the advanced land development courses. The course focuses on the steps in planning and carrying out the land development project and on the legal issues encountered in the land development profession. The course includes lectures, readings from the texts and closed library reserves, class discussion, problems, exercises and student presentations.

CM 3400: Risk and Quality Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

This course focuses on Exposure analysis, risk management, risk transfer and the costs associated with each. The costs of safety and the lack of it is examined. Workers' compensation insurance cost is integrated into the issues of safety along with the development of a comprehensive risk management plan.

CM 3410: Construction Quantity Surveying

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110 and (CM 3000 or CE 2003)

A study of techniques in the process of construction estimating, with an emphasis on development of the quantity survey. The completion of a specification takeoff and a quantity survey of commercial construction are required.

CM 3411: Construction Estimating Software

1 Class Hours 2 Laboratory Hours 2 Credit Hours

Prerequisite: CM 3410

Hands-on computer application of commonly used commercial construction estimating software to construction projects. Instruction in use of the software.

CM 3420: Construction Estimating and Bid Preparation

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3410

The continued study of the estimating process emphasizing pricing the general contractor's work, including estimating procedures, development of direct and indirect unit costs, evaluation of subcontractor bids, bidding strategy and bid opening. The completion of an estimate, bid submission, and development of a schedule of values are required. Also included is an introduction to conceptual estimating.

CM 3430: Construction Estimating for Development

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3410

A study of quantity take-off techniques and equipment productivity analysis necessary to development. Small scale development project budgeting will be analyzed from the developer viewpoint. Initial conceptual design budget is based on square foot or assembly pricing for the various construction systems and detailed estimate for the infrastructure costs including site work and utilities. Indirect costs associated with zoning, local codes, and ordinances, as well as soft cost associated with design and engineering will be discussed.

CM 3440: Heavy Estimating

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3410

Advanced estimating techniques and bid preparation for heavy construction projects. Study of the principles used in developing cost estimates for heavy construction projects. Includes interpretation of contract documents, quantity take-off, pricing, and preparation of unit-price bid documents. Introduction and practice with takeoff software for bidding earthwork, paving, utilities, roads, and bridges.

CM 3480: Mechanical and Electrical Systems Estimating

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3280

A continuation of the study of the estimating process emphasizing the specialty contractors portion of the construction project. Topics covered will include the estimating procedure, soft costs, using standard industry references and software, and bidding strategy. A current set of mechanical, plumbing and electrical plans will be estimated.

CM 3500: Building Codes

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

This course will provide an overview of building codes from the perspective of construction managers and superintendent. Various issues related to building codes, which must be considered by the PM/CM/superintendent, will be discussed and follow the scheduled reading assignments.

CM 3620: Construction Finance and Feasibility

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: ACCT 2100

A study of Financial Management for the Contractor, and Builder/Developer Organization. Topics include: balance sheet analysis using Percentage of Completion Method, Completed Contract Method with Absorption Analyses, and Work in Process Accounting regarding construction progress payments in excess of costs and estimated earnings. Ratio analysis for construction industry and bid and payment/bond performance. Cash flow projection for construction projects. Also included is building construction economics in terms of: Value Engineering, Constructability, building delivery systems and real estate processes for the Builder/Developer and Construction Management organizations. Graduate students will do additional work on construction cost accounting.

CM 3710: Market and Site Analysis

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3310

An integrated theory and applications course that provides an exposition of theoretical principles associated with the site planning process, and then involves the students in hands-on application. The inter-relationship between site planning decisions and their potential consequences will be demonstrated through practical exercises.

CM 3800: Construction Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100

Students in this course study the management of company and project finances. They learn the fundamentals of construction accounting and depreciation, prepare financial statements, analyze company's financial health, conduct cost and profit center analysis, prepare and forecast cash flows, and use the technique of time value of money for economic decision making.

CM 3810: Advanced Construction Practice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 2000, CM 3000

This course will prepare students to participate in formal interdisciplinary competitions against other Construction Management/Architecture/ Civil Engineering programs at the 4 year university level. At these competitions students are given a real life project from which they must be able to prepare a preliminary design (Design/Build competitions only), complete estimate, CPM schedule and staffing plan and present these items both in a formal bound written report, as well as a formal oral presentation. The first nine (9) weeks of the course involves intensive instruction in the areas of writing, oral presentation, estimating, scheduling and preliminary design skills as part of the pre-competition preparation process. During the final third of the course students will be expected to make corrections to their competition submittal package based on feedback from the judges at the competition. Following the competition, additional topics involving the use of Building Information Modeling importance of a collaborative team effort from owner, developers, architects, engineers, constructors, technicians and

consultants is the overall focus of this course.

CM 3910: Sustainable Residential Practices

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

This course emphasizes the techniques and methods of sustainable construction for the residential building industry. Students will explore green building rating systems and emerging trends for homes and neighborhood development. Topics will include performance certification techniques for sustainable sites, location & connectivity, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, innovation, and design.

CM 3912: Workplace Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

A study of the legal constraints encountered in the workplace. Topics included are drugs and drug testing, sexual harassment, labor management cooperation, discrimination, worker compensation, foreign labor regulation, minority/women's business enterprises and professional regulation.

CM 4190: Sustainable Operation & Maintenance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3180

This course will emphasize the techniques and methods used in sustainable operations and maintenance. Importance of a collaborative team effort from owner, occupant, facility management, and maintenance providers will be integrated into the course. Influences on the Environment, society, maintenance and energy needs will be analyzed. Topics will include LEED green building operations and maintenance (Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation In Operations). MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be discussed from a sustainable operations and maintenance perspective.

CM 4230: Heavy Materials & Temporary Structures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3170

Origin, classification, and physical properties of soil as used in engineering and construction applications, together with loads and stresses of soil on, and the more common types of engineering structures. To include an introduction of field sampling and testing for earthwork construction.

CM 4480: Design/Build MEP Systems

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3280

A study of the design-build delivery method applied to construction projects. The study starts with details of the process and how it differs from other project delivery methods. Topics will include building MEP systems (air-conditioning, heating, ventilation, plumbing, electrical power, electrical lighting and building

control) and how they are planned and delivered in a design-build project. The analysis of current construction drawings will be integrated into the course.

CM 4510: Construction Scheduling

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110, CM 3410

A study of the management techniques used in controlling the progress of construction projects, including development of a commercial project schedule, as well as simulation of updating and monitoring progress using critical path methodology. Commonly used commercial software packages are introduced.

CM 4511: Construction Scheduling Software

1 Class Hours 2 Laboratory Hours 2 Credit Hours

Prerequisite: CM 4510 or approval of the Department Head

Hands-on computer application of commonly used commercial construction scheduling software to construction projects. Instruction in use of the software.

CM 4512: Emerging Trends in Residential Construction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3110

This course emphasizes emerging trends in the residential building industry. Students will explore labor issues, residential construction concerns, and innovative strategies that are present in today's residential homebuilding.

CM 4560: Construction Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 4510, CM 3410

A study of traditional, design-build and construction management delivery methods, the management of field operations and administration of the construction contracts. Contract documents, project organization, supervision, working with owners and design professionals, procurement, management of subcontractors.

CM 4570: Development Process I

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CM 3310

A study of development as a process with special emphasis on teams built around the developer. The various issues that must be considered by the development team will be discussed. These include conformity of the development process to sound business principles, adherence of development activities to relevant zoning and permitting requirements, and the potential environmental impact of the considered development.

CM 4620: Development Process and Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3800

Students in this course will study financial feasibility and economic desirability of income producing properties. They will learn various financial feasibility analysis techniques and prepare financial pro-forma models for various stages of the development process. The concepts that will be covered are net operating income, time value of money, different forms of financing, and business entities for development process. Acquisition, development, and construction (ADC) loans will be studied and student will prepare their loan amortization schedule.

CM 4639: Construction Safety & Law

4 Class Hours 0 Laboratory Hours 4 Credit Hours

A study of construction safety and law as they pertain to day to day needs of the construction professional. Topics include but are not limited to safety and loss control principles and practices, contract documents and claims, insurance and dispute resolutions.

CM 4660: Advanced Scheduling & Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CM 4510, CM 4560

Course focuses on Communication, Industry Software, Target Value Design and other best Practices as they pertain to Project Management. Erosion Control Supervisor, and Work Zone Traffic Control Certification requirements are examined. Skills generally required for sound project management in a variety of management settings are studied in addition to specific management issues typically associated with construction companies.

CM 4710: Construction Safety

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CM 3110 and CM 3180) OR (PHYS 2212 and PHYS 2212L and CM 3110 and ENGR 3343 and ENGR 3345 and CE 3501 and CE 3502)

A study of construction safety and loss control principles and practices. Topics include project security control, construction accident prevention, safety information sources, weather precautions, emergency planning, and OSHA procedures and regulations.

CM 4760: Construction and Real Estate Property Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BLAW 2200 or ENGR 3324

A study of Construction Contract Documents and Claims. Topics include: analyses of AIA B141, A101, A201, and contractual graphic and technical documents. Other supporting construction contract documents such as bid bonds, payment and performance bonds and construction modifications are studied. The traditional tri-union construction contract formation process is examined in relation to the owner, contractor, material men, and subcontractors. Discussions regarding damages for differing and unforeseen conditions, defective workmanship, and construction delay claims are surveyed in

conjunction with AAA construction arbitration rules regarding emerging construction manager contracting processes.

CM 4800: Construction Management Technique

1 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: For General Concentration: CM 3420, CM 4510, CM 4560, CM 4710, CM 3620
For Specialty Concentration: CM 4510, CM 4560, CM 4710, ACCT 2100, CM 3480

Simulations and case studies of events that affect the construction organization and project. Topics and event simulations will include problems typically encountered in the construction industry such as changed conditions, strikes, inconsistencies in documents, and surety assumption of the contract. Presentations by prominent industry representatives pertinent to the event being simulated are included.

CM 4900: Capstone Project

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CM 3800, CM 4560, CM 4510

Simulations and case studies of events that affect the construction organization and project. Topics and event simulations will include problems typically encountered in the construction industry such as changed conditions, strikes, inconsistencies in documents, and surety assumption of the contract. Presentations by prominent industry representatives pertinent to the event being simulated are included.

Criminal Justice

CRJU 1101: Foundations of Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required.
Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course provides an overview of the American criminal justice system including law enforcement, the court system, and the correctional system. Emphasis is placed on crime in the U.S., the criminal justice process from arrest through sentencing, and the roles and responsibilities of criminal justice actors. Current topics in the criminal justice system are addressed such as the death penalty, offender treatment, and criminal justice reform among others.

CRJU 2201: Crimes and Defenses

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course explores substantive criminal offenses and defenses. Topic areas include the types and elements of felony and misdemeanor criminal offenses, defenses to crimes, and lower and appellate case law interpretations of crimes and defenses. Emphasis is placed on federal and state criminal law, including those pertaining to Georgia. The course also evaluates the historical development of crimes and defenses, public policy implications, and the underlying principles that guide the development of crimes and defenses.

CRJU 3300: Criminal Courts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines the history, development, structure, operation, and organization of criminal court systems in federal and state courts in the U.S. Topic areas include the roles of major professional and non-professional courtroom participants, stages in the process of adjudication of criminal cases from initial charging through post-conviction review, and an introduction to the constitutional rights of the accused.

CRJU 3301: Research Methods in Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an introduction to the scientific method and the concepts and techniques of social science research. Topic areas include levels of measurement, sampling techniques, research design, survey methodology, and various research techniques. Emphasis is placed on the application of these techniques to the study of specific research questions in criminal justice. This course also examines how to interpret basic statistics and analyze data in a statistical software program.

CRJU 3305: Technology and Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course involves an in-depth study of technology as it relates to crime and the criminal justice system. Topics discussed include technology associated with criminal investigations, law enforcement practices, offender monitoring and supervision, and homeland security. Legal issues and laws pertaining to the use of technology for investigative purposes, privacy issues, and fourth amendment issues are examined. Various technologies used by police, courts, and corrections are also addressed.

CRJU 3310: Police in America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of American law enforcement including the role and purposes of police in society, the major functions and responsibilities of police, and police subculture. This course also examines legal issues related to policing, police discretion and decision-making, and police behavior including use of force and misconduct. Emphasis is placed on police effectiveness in controlling and preventing crime, police/community relations, and future trends in law enforcement.

CRJU 3311: Police Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of police administration in the U.S. and examines the social, legal, and political factors that influence police management. Topic areas include the goals of the law enforcement

system, recruitment and selection of officers, the roles and responsibilities of police administrators, problem-solving and decision-making, and strategic planning of police operations. Emphasis is placed on police accountability to the public and future trends that influence the management of police organizations.

CRJU 3312: State and Federal Law Enforcement Initiatives

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines various state and federal law enforcement initiatives. Topic areas include the mission and vision of agencies, as well as their operation and administration, jurisdictional authority, use of technology, and the prediction of future crime issues facing the agencies. Emphasis is placed on career trends in state and federal law enforcement agencies. The hiring and application process and the essential skills applicants ought to possess for employment in these agencies are also discussed.

CRJU 3315: Criminal Procedure

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines the requirements and interpretation of constitutional amendments by the U.S. Supreme Court and other federal and state courts during the various stages of a criminal case, including police investigation, search, and arrest; the pretrial phase, including screening of complaints and formal charging of the accused; the trial; the sentencing phase; and appellate review. The constitutional requirements regarding reasonable suspicion, probable cause, custodial interrogation, and the exclusionary rule are featured.

CRJU 3320: Criminal Investigation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines the historical, theoretical, and technological aspects of the investigation of crime. Topic areas include crime scene examinations, the collection and preservation of evidence, the basic legal principles and procedures governing the use of evidence in court proceedings, forensic and behavioral sciences, interviews and interrogations, and the use of technology by law enforcement agencies.

CRJU 3332: Corrections

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course includes a historical and philosophical overview of the American correctional system. Emphasis is placed on the types, goals, and purposes of community-based and institutional corrections, the roles and responsibilities of correctional agencies and actors, and offender characteristics and legal rights. This course also explores correctional policies and their effectiveness to reduce crime and recidivism such as correctional rehabilitation, habitual offender laws, and the death penalty among others.

CRJU 3340: Legal Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course involves students in the process of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime.

CRJU 3352: Juvenile Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course focuses on the juvenile justice system including the processing of juvenile offenders from the delinquent act through disposition and discharge. The nature and extent of juvenile delinquency and theories of delinquency are also addressed. Emphasis is placed on the historical purpose of the juvenile court, the effects of the due process revolution on the juvenile justice system, and current research and trends related to juvenile delinquency and justice.

CRJU 3365: Profile of the Serial Offender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an in-depth examination of repeat, violent offenders. Topic areas include offender characteristics, victim traits and characteristics, offender identification and investigative strategies, and criminal justice policies that are focused on serial offending. Emphasis is placed on the examination of theories and research that explain how serial offenders evolve across their life-course from childhood to adulthood.

CRJU 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education (Career Services) and the internship coordinator.

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry, government or private agency related to criminal justice field. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

CRJU 3398: Internship

0 Class Hours 0 Laboratory Hours 3-9 Credit Hours

Prerequisite: Criminal Justice Major; 90 credit hours; and successful completion of 12 upper-level CRJU credits.

This course is a structured off-campus experience in a supervised setting that is related to the student's

major and career interests. Practical experience is combined with scholarly work in the topical area of the internship, under the guidance of both a field supervisor and an academic internship coordinator. In advance of the semester of the internship, students must select an appropriate host agency and attend a mandatory departmental internship orientation session.

CRJU 3400: Ideological/Group Violence and Law Enforcement

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines law enforcement's response to domestic and international terrorism. Topic areas include the development of modern terrorism and specific terrorist groups, counterterrorism policies and laws, threat analysis, and intelligence processing. Emphasis is placed on proactive measures to prevent terrorism and reactive measures to investigate terrorist acts. This course addresses the roles and responsibilities of local, state, and federal law enforcement agencies in responding to terrorism.

CRJU 4100: Ethics in Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of ethical decision-making and behavior within the context of the criminal justice system. Common ethical dilemmas that occur within law enforcement, the court system, and the correctional system are presented. The relationship between occupational discretion and ethical behavior is explored, and appropriate responses to ethical misconduct are presented. The course also explores various occupational subcultures within the criminal justice system and how these subcultures affect ethical behavior in the workplace.

CRJU 4300: Organized Crime

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course examines the origins, histories, and activities of various major organized crime groups in the United States and throughout the world. Special emphasis is placed on emerging organized criminal enterprises in developing countries and regions. In addition, this course explores the methods used by law enforcement to combat organized crime.

CRJU 4305: Technology and Cyber Crime

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of cyber crime and computer-related crime issues facing the American criminal justice system, particularly law enforcement. Topic areas include prevalence and types of cyber crime, cyber crime victim and offender characteristics, and methods and types of technologies used to engage in cyber crime. Emphasis is placed on the criminal justice system's investigation and response to cyber crime. Future trends of cyber crime and computer-related crime are also discussed.

CRJU 4400: Directed Study in Criminal Justice

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Covers special topics and seminars external to regular course offerings.

Notes: May include original research projects and practicum experiences.

CRJU 4410: Criminal Profiling and Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course centers on the deductive criminal profiling method, the analysis process of forensic evidence, and the development of offender characteristics from behavioral evidence analysis. An overview of the socio-legal aspects involving profiling and analysis of specific profiling issues in different types of serial crime are addressed. Students examine an actual cold homicide and prepare a threshold assessment of the case.

CRJU 4430: Victimology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of criminal victimization in the U.S. This course includes an examination of theories of victimization, research on the scope and impact of specific types of victimization, and efforts to prevent victimization. Additional topics covered include victims' interactions with the criminal justice system, victims' rights, social services for victims, and other efforts to address the needs of crime victims.

CRJU 4490: Special Topics in Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of interest to faculty and students.

CRJU 4499: Senior Seminar in Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101; CRJU 3301; Criminal Justice Major; and 90 credit hours

This is a capstone course designed for senior-level criminal justice majors to apply learning from previous criminal justice courses. This course addresses current issues and trends in criminal justice to integrate knowledge concerning criminal justice policy.

Culinary Sustainability and Hospitality

CSH 2100: Introduction to Culinary Sustainability and Hospitality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides an overview of ethical, environmental, and economic sustainable practices in the culinary hospitality industry. Historical development, organization structures, resource conservation, farming, travel and tourism and the role culinary management has in the industry are all discussed. Guest speakers are integrated into the course to provide industry perspective. Students also conduct a carbon footprint analysis identifying the environmental, societal, and economic impact of that footprint, and design strategies to reduce their own footprint.

CSH 2200: World Cuisines and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course studies the evolution of agriculture, food preservation and preparation techniques, food habits and beliefs about food. We delve into geographical, historical, technological and religious factors that have influenced the food-related behaviors of various ethnic groups, exploring how all cultures impact individuals' beliefs about food. Students taste and evaluate regional dishes from a variety of countries, focusing on ingredients, flavors, preparation and techniques characteristic of the cuisines and regions.

CSH 2300: Basic Culinary Skills

1 Class Hours 2 Laboratory Hours 3 Credit Hours

This class serves as an introduction to fundamental cooking skills, methods, theories and techniques. Skills include creating sauces, stocks, soups, knife skills, saute techniques, equipment care, safety and usage, meat fabrication, seafood and vegetable identification and preparation, storing and preservation. Topics also include personal hygiene, safety, basic first aid, station organization, and agricultural sustainability. Students must take and pass the ServSafe sanitation certification exam to pass the course.

CSH 2400: Services Management and Food Production

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is an introduction to the fundamental principles of food and beverage services management emphasizing how food service professionals create and deliver guest-driven service, enhance value, build guest loyalty, and promote repeat business. Students learn theoretical and practical skills for effective management of food and beverage service operations relating to front and back of the house, leadership, management principles, service skills, service styles (French, Russian, American), and training of personnel.

CSH 2500: Principles of Nutrition for the Professional

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is designed to introduce students to the basic principles of nutrition as needed for general health and healthy menu design. Topics include macro- and micro-nutrients needs for optimum health,

U.S. dietary guidelines (and international equivalents), tools to assist with menu planning and nutrient analysis. Students study food labeling, sustainable food practices, and how to apply these practices to meal and menu development, meal planning, and healthy cuisines.

CSH 3100: Food Science I

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: CSH 2500

This course explores engineering, biological, and physical sciences to study the nature of foods, the causes of deterioration, the principles underlying cooking and food processing, and the improvement of food quality for the consuming public. Students acquire a basic theoretical understanding of the chemical and physiochemical principles involved in creating and maintaining desirable food sensory and nutritional properties during food storage, preparation and holding.

CSH 3200: Food and Beverage Purchasing, Logistics and Supply Chain

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100

This course promotes an understanding of the managerial aspects of hospitality purchasing activities in food, beverage, supplies, equipment, services, and furnishings. Emphasis is placed on strategic selection and procurement considerations based on item need, value, and supplier information. Students learn policies and procedures in the receiving, transportation logistics, storing, controlling, and issuing functions of inventory management all with responsible environmental consideration. Students learn how logistical decisions impact the performance of the operation.

CSH 3300: Professional Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Culinary Sustainability and Hospitality majors: CSH 2100; Non-Culinary Sustainability and Hospitality majors: 60 credit hours and permission of the department.

This course improves students' abilities to describe their accomplishments and sell their ideas in professional networking situations, company meetings, responses to proposals, and interviews. Students learn to create career objectives based upon their research of career options and potential employers, and prepare a developmental roadmap that will lead them to success within their chosen profession.

CSH 3390: International Initiatives in Foods (Study Abroad)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 75+ credit hours and permission of the department chair.

In this study abroad course, students evaluate the origins and migration of foods throughout a region, including food's relationship to religion and various cultural groups, geographical location, social practices and economic well-being. Students examine the impact of the country's sustainability practices and the basis for those practices. Students design, create, implement and evaluate a new sustainable practice in the partnered-locale.

CSH 3398: Internship (Culinary Services Management)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Culinary Sustainability and Hospitality majors: 60 credit hours or permission of the department chair; Non-Culinary Sustainability and Hospitality majors: permission of the department chair.

In this course classroom learning is applied to the professional practice of sustainability in culinary food service and hospitality management. Students gain hands-on experience under direct supervision of managers, chefs and/or staff in establishments approved by the instructor, rotating through multiple departments while learning to engage in a variety of food service operations, sustainable business practices and management responsibilities. 150 hours of internship experience with a host employer is required, in addition to classroom meetings.

CSH 3400: Sustainable Facilities Design and Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Culinary Sustainability and Hospitality majors: CSH 2100; Non-Culinary Sustainability and Hospitality majors: 60 credit hours and permission of the department chair.

This course provides fundamental concepts of sustainability and resource conservation in the operations of culinary and hospitality facilities. Students learn how to work effectively with the engineering and maintenance department(s). The course prepares students to responsibly manage with emphasis on the areas of energy, water and waste as related to their impact on the environment and facilities management. CPR/First Aid Training certification is a requirement for successful completion of the course.

CSH 3500: Organic Agriculture and Beginning Apiary Studies

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Students are introduced to the competencies and hands-on methods to practice and experience all aspects of sustainable organic farming and beginning apiary studies. This course emphasizes sustainable food production systems, soil conservation, plant nutrition, honey bees and beekeeping, and the environmental study of how using the local bee population can increase crop production.

CSH 3610: Club Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course introduces students to the world of private club management, including club governance, service excellence, organizational structure, quality management systems for clubs, government regulations, club marketing, food and beverage operations, computer technology for clubs, golf operations in clubs, club fitness operations, and club facilities management. Students learn how to incorporate sustainable practices in club management.

CSH 4000: CSH Work Experience

0 Class Hours 0 Laboratory Hours 0 Credit Hours

Work experience hours that are industry related (culinary or hospitality) need to be verified by submitting documentation from the work establishment that shows the number of hours worked and the job title/description. Students should hold on to these documents until they are ready to be

submitted in the semester the student is taking the CSH 4000 class. Working "under the table" is not considered for work experience hours (plus, illegal).

Notes: In order to graduate, students must complete a minimum of 600 industry-related work experience/volunteerism/service hours, with a minimum 200 of those hours being industry-focused volunteer (non-paid) service hours through VKSU. Any exceptions to the VKSU site requirement require written approval in advance by the department chair. All 600 hours may be acquired through volunteerism/service.

Upon completion of the requirements, or in the semester in which the student is certain they will complete the requirements, students will register for CSH 4000 (for work experience) and/or CSH 4010 (for volunteerism). These classes are zero-credit, pass/fail classes used for certification that the required hours were completed, and appear in DegreeWorks. Only register for these courses if the hours will be completed by the end of the semester.

CSH 4010: CSH Volunteerism

0 Class Hours 0 Laboratory Hours 0 Credit Hours

All volunteer hours must be industry-related and non-paid for the student to receive credit. Students are required to log their hours using the VKSU website (VKSU.kennesaw.edu). VKSU does not allow students to volunteer with places of worship, for-profit organizations or businesses, or activities conducted from a non-approved volunteer site.

Notes: In order to graduate, students must complete a minimum of 600 industry-related work. Experience/volunteerism/service hours, with a minimum 200 of those hours being industry-focused volunteer (non-paid) service hours through VKSU. Any exceptions to the VKSU site requirement require written approval in advance by the department chair. All 600 hours may be acquired through volunteerism/service.

Upon completion of the requirements, or in the semester in which the student is certain they will complete the requirements, students will register for CSH 4000 (for work experience) and/or CSH 4010 (for volunteerism). These classes are zero-credit, pass/fail classes used for certification that the required hours were completed, and appear in DegreeWorks. Only register for these courses if the hours will be completed by the end of the semester.

CSH 4100: Principles of Beverage Operations Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSH 2400 and permission of the department chair. All students must be 21 years or older to take this class.

This course examines the management of bar and beverage operations within the various hospitality environments, exploring the history of the beverage industry, the cultural relevance of spirits and ales, and the incorporation of various beverages in food service. Students develop serving techniques of wine, spirits, beer, coffee, and tea, and create wine lists, beer lists, and beverage menus. Students must successfully complete the ServSafe Alcohol exam to pass the class.

CSH 4200: Food and Beverage Cost

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100, ACCT 2200, and CSH 3200

This course provides a comprehensive look at the methods, tools and techniques to control food, beverage, and labor costs. Topics include planning, budgeting, standard costing, standardized recipes, menu development, principles of purchasing, staffing and labor costs. Emphasis is placed on controlling costs, allocation of overhead, and fiscal accountability in a sustainable environment.

CSH 4300: Hospitality Law and Liability

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100

This course provides a basic understanding of the law in general, and of the primary laws that apply to the hospitality and food service industries. Students learn to effectively manage the legal issues and liabilities most commonly faced by all hospitality managers, how environmental and natural resource law impacts the industry, and how to avoid and prevent legal liabilities.

CSH 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 3.0 GPA and permission of the department chair.

This course gives students the opportunity for in-depth study of a special topic in culinary sustainability and hospitality not afforded in regular course offerings. Students work under the direction of an individual faculty member.

CSH 4498: Strategic Management in Hospitality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Culinary Sustainability and Hospitality majors: Students must have completed MKTG 3100 and MGT 4001. This course is taken in the last or next-to-last semester in the program; Non-Culinary Sustainability and Hospitality majors: Senior standing and permission of the department chair.

This challenging senior-level capstone course transforms students into strategic business leaders, incorporating disciplines learned throughout the curriculum including marketing, purchasing, situational analysis, quantitative production, environmental awareness, financial and quality management, and strategic formulation and implementation as applied to the hospitality industry. The primary focus is on the successful development, execution, and application of strategic management concepts to a signature event held during the semester.

CSH 4499: Quantity Food Management

1 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Culinary Sustainability and Hospitality majors: Students must have completed CSH 3100 and CSH 4200. This course is taken in the last or next-to-last semester in the program; Non-Culinary Sustainability and Hospitality majors: Senior standing and permission of the department chair.

Students demonstrate established standards, techniques, and practices for large quantity food production by creating a meal service event, including the menu development and design, purchasing, sales and marketing, food service production, cost analysis and service of meals in a dining room environment.

CSH 4610: Plant-Based Cuisine

1 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: CSH 2500

This course examines vegan and vegetarian diets and the nutritional preparation of plant-based cuisines. Students explore why vegan and vegetarian diets are chosen for health, social, religious, or other reasons, with a focus on preparing meals with plant-based ingredients, modifying recipes, and determining preparation methods for highest nutritional value. Students analyze the relationship between diet and disease, and compare that for those eating exclusively plant-based cuisine to the average diet.

CSH 4620: Exploring the World of Wines

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Students must be 21+ years of age by the first day of class to take this class.

Students obtain an in-depth understanding of vineyard and cellar practices that affect style, quality, commercial viability and long-term sustainability of the world's most important wines. Classic, New World, and emerging regions provide the context within which these practices are studied. The class develops students' sensory evaluation skills for the purpose of guiding commercial decisions made by management within a foodservice or hospitality operation.

CSH 4630: Spirits, Beers, and Brews

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Students must be 21+ years of age by the first day of class to take this class.

Students gain an in-depth understanding of key factors that influence price, quality, and long-term sustainability of the world's most important spirits, beers and other alcoholic beverages such as cider and beverages and their regional or generic counterparts. Students will develop their sensory evaluation skills for the purpose of guiding commercial management decisions within the industry.

CSH 4640: Beer Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Students must be 21+ years of age by the first day of class to take this class.

Students develop knowledge of the evolution of brewing and brewer's culture and practices, an understanding of various beer and ale styles, the effects of local culture and society, and the relationship of various technologies on the brewing process. Samples of beers illustrate the sensory properties (flavor, color, foam, and haze), microbiological processes, and chemical components that determine beer quality. Students develop and sharpen sensory skills to discern stylistic nuances as well as technical production issues.

CSH 4650: Fundamentals of Brewing

1 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Students must be 21+ years of age by the first day of class to take this class.

Students explore the art and science of brewing beer, the business of its production, distribution and sale and its place in a cuisine pairing. Students will handcraft several types of beer, going from grain to finished product, exploring the science of fermentation, learning to critique various styles, and gaining an understanding of beer's place in history, culture and cuisine.

CSH 4660: Event Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides an introduction to the principles of event management including special event research, planning, coordination, marketing, management and post-event evaluation. Through instruction, observation and analysis, students probe, explore and draw conclusions about "what works" in event management.

CSH 4670: Catering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students study the techniques, logistics, and responsibilities involved in the management of on-premise and off-premise catering companies. Students evaluate operations, sales, vendor facilities, challenges and solutions, assessing the needs and requirements in both on-premise and off-premise settings.

CSH 4680: Wedding Planning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students explore the various business and creative aspects of wedding planning and the wedding industry. Students design an event focusing on client retention, package development, contract and vendor interactions, as well as the creative needs associated with this specific event.

CSH 4690: Baking and Pastry

1 Class Hours 2 Laboratory Hours 3 Credit Hours

Students are introduced to fundamental baking and pastry skills, methods, theories and techniques through lecture, demonstration and hands-on production. Students learn the necessity of personal hygiene, safety, basic first aid, and station organization in a production kitchen.

Cybersecurity

CYBR 3100: Principles of Information Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CS 1301 or CSE 1301, and admission to the Bachelor of Science in Cybersecurity eMajor

This course offers a foundation in the various technical and administrative aspects of Cybersecurity and provides the terminology and principles for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, as well as

designing a consistent, reasonable cybersecurity system.

CYBR 3123: Hardware and Software Concepts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302 or CSE 1302 or IT 1324

Corequisite: MATH 2345 or CSE 2300

This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern languages.

CYBR 3153: Database Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 1324

The topics in this course span from a review of the traditional file processing systems to database management systems. Topics include files systems and file processing logic, planning, and major phases of database development: analysis, design and implementation. Labs use an SQL based database product such as Oracle.

CYBR 3200: Network Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor

This course provides a complete foundation of the cybersecurity of networked information systems, providing a detailed examination of principles, theory, tools, techniques, and technologies used in network cybersecurity.

CYBR 3210: Client Systems Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CS 1301 or CSE 1301, and admission to the Bachelor of Science in Cybersecurity eMajor

This course explores client computer system technology, security, and control of vulnerabilities. It will include relevant computer architectures, and operating systems and will provide the detailed technical coverage necessary to protect computer information system clients by presenting the knowledge of client platform computer hardware components, client network devices and interfaces, as well as the structure and usage of common client operating system software from a cybersecurity perspective.

CYBR 3220: Global IS Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 3100 and admission to the Cybersecurity BS eMajor program of study.

In this course, students will be exposed to the basic principles of Global Project Management, effective

teamwork and collaboration. It will prepare students to understand key issues in global project management such as project initiation, planning, scheduling, budgeting, risk analysis, quality management and communicating and collaborating across political and cultural boundaries. Tools such as Microsoft Project will be used to develop and track Information Systems projects.

CYBR 3223: Software Acquisition and Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 1301 or CS 1301 or IT 1113 or CSE 1311

The course provides a high level introduction to two areas that are crucial to the IT profession, namely project management and software acquisition. It introduces students to the phases both in the project management and software acquisition and implementation process. Since requirements are crucial to both activities, the course will provide students with an in-depth introduction to requirements engineering. The course will also introduce students to a widely used project management information system.

CYBR 3300: Management of Information Security in a Global Environment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor

This course explores managerial aspects of cybersecurity and the administration of strategic planning processes as well as the policies, procedures, and staffing functions necessary to organize and administer the cybersecurity functions of an organization.

CYBR 3305: Technology and Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course involves an in-depth study of technology as it relates to crime and the criminal justice system. Topics discussed include technology associated with criminal investigations, law enforcement practices, offender monitoring and supervision, and homeland security. Legal issues and laws pertaining to the use of technology for investigative purposes, privacy issues, and fourth amendment issues are examined. Various technologies used by police, courts, and corrections are also addressed.

CYBR 3396: Cooperative Study

0 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: A grade of 'C' or better in CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor, and approval of the coordinator of cooperative education/internships (KSU Career Services).

This is a supervised credit-earning work experience for a minimum of two academic semesters with a previously approved business firm, private agency, or government agency. For sophomore, junior, or senior students who wish to obtain on-the-job experience in conjunction with their academic education.

CYBR 3398: Internship

0 Class Hours 0 Laboratory Hours 1-9 Credit Hours

Prerequisite: A grade of 'C' or better in CYBR 3100, and admission to the Bachelor of Science in Cybersecurity eMajor, and approval of the coordinator of cooperative education/internships (KSU Career Services).

A supervised credit-earning work experience for one academic semester with a previously approved business firm, private agency, or government agency. The work experience may not be with a current employer. The course will be graded on an S/U basis. The number of credit hours applicable to degree requirements is limited.

CYBR 3423: Operating Systems Concepts & Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 3123 or IT 3123

This course is an introduction to basic operating system principles. Topics include memory management, peripheral device management, file system management and process management. Different types of operating systems and their administrations are studied. Projects are carried out with simulations

CYBR 4200: Perimeter Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor

An exploration of cybersecurity techniques, tools, and technologies used to protect an organizations network infrastructure. The course will examine the evaluation, selection, deployment, and administration of firewall, VPN, IDPS, and other applications used to defend organizational networks and information assets from attacks.

CYBR 4220: Server Systems Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 4200 and CYBR 442), and admission to the Bachelor of Science in Cybersecurity eMajor

This course offers the detailed technical knowledge and skills necessary to protect computer server information system by presenting the knowledge of server platform computer hardware components, server network devices and interfaces, as well as the structure and usage of common server operating system software from a cybersecurity perspective. Additional learning regarding ongoing maintenance and operational issues of server computing systems will also be included.

CYBR 4305: Technology and Cyber Crime

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101

This course provides an overview of cyber crime and computer-related crime issues facing the American criminal justice system, particularly law enforcement. Topic areas include prevalence and types of cyber

crime, cyber crime victim and offender characteristics, and methods and types of technologies used to engage in cyber crime. Emphasis is placed on the criminal justice system's investigation and response to cyber crime. Future trends of cyber crime and computer-related crime are also discussed.

CYBR 4323: Data Communications & Networking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 3123 or IT 3123

Fundamental concepts of computer networking include topics such as properties of signals and media, information encoding, error detection and recovery, LANs, backbones, WANs, network topologies, routing, Internet protocols, and security issues. The focus is on general concepts together with their application to support the business enterprise.

CYBR 4330: Incident Response and Contingency Planning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in CYBR 3300, and admission to the Bachelor of Science in Cybersecurity eMajor

This course offers coverage of the cybersecurity contingency planning. It includes the detailed aspects of incident response planning, disaster recovery planning, and business continuity planning. Developing and executing plans to deal with incidents in the organization is a critical function in cybersecurity. This course focuses on the planning processes for the execution of response to human and non-human incidents in compliance with these policies.

CYBR 4333: Network Configuration & Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 4323 or IT 4323

This course continues the study of networks. Topics include design and implementation of networks including synchronization, scheduling, exception and deadlock resolution, client server and web based collaborative systems. Network security will also be covered. Cost estimates and speed are examined from a management perspective.

CYBR 4350: Management of Digital Forensics and eDiscovery

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3210 and CYBR 3423), and admission to the Bachelor of Science in Cybersecurity eMajor

This course explores the key issues in digital forensics: the detection, isolation and response to security breaches and attacks. It provides specific procedures required to respond to a computer crime incident and also provides coverage of the entire digital forensic sequence and the eDiscovery process within organizations.

CYBR 4400: Directed Study

0 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: Approval of Instructor and Department Chair.

This course enables the study of special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project on a topic in the subject area of cybersecurity supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

CYBR 4423: Linux/Unix Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in CYBR 3423 or IT 3423

This course introduces Linux/Unix operating systems. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons will be enhanced using hands-on exercises.

CYBR 4490: Special Topics in Cybersecurity

1-3 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: Junior/Senior Standing, additional requirement will vary by topic.

Special topics proposed by faculty, approved by the Department Chair. Offered on a demand basis. Can be repeated for credit if not duplicate topic.

CYBR 4700: Emerging Issues in Cybersecurity

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in CYBR 3100 and permission of Department.

This course explores emerging issues in cybersecurity. The content of each offering will vary based on current issues and concerns in the cybersecurity industry.

CYBR 4810: Cyber Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 4220 and CYBR 4200), and admission to the Bachelor of Science in Cybersecurity eMajor

This course is a semester-long simulation using the virtual systems, software, practices, and procedures necessary for the protection of computer systems and networks. Students learn how to protect networks and systems as deployed in a typical organization. Course topics include policy and practice associated with the protection of communication resources, intrusion detection systems, firewalls, and use of various tools for system and network protection.

CYBR 4833: Wireless Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor

This course explores the theory and practice of securing wireless networks from threats and attacks. Topics include Cryptography, Network Security Protocols, Security and Layered Architecture, Voice-Oriented Wireless Networks, Data-Oriented Wireless Networks, Security in Traditional Wireless Networks, Security in Wireless LAN, and Security in Wireless Ad Hoc Networks.

CYBR 4843: Ethical Hacking for Effective Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3200 and CYBR 4323) and admission to the Bachelor of Science in Cybersecurity eMajor

This course explores the identification and validation of network and system vulnerabilities by taking an adversarial approach to network, system, and data access. Topics include network attacks and defenses, Operating System and application vulnerabilities, social engineering attacks, and malware. Ethical, legal implications of network attacks are also discussed.

CYBR 4853: Computer Forensics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3210 and CYBR 3423), and admission to the Bachelor of Science in Cybersecurity eMajor

This course is an exploration of the tools and techniques used to conduct digital investigations. It will include digital evidence collection, recovery, and analysis. Topics are Legal issues relating to digital evidence, recovery of deleted files and discovery of hidden information, reconstruction of user activity from e-mail, temporary Internet files and cached data, assessment of the integrity of system memory and process architecture to reveal malicious code.

CYBR 4883: Infrastructure Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity eMajor

This course is an overview of the cybersecurity aspects of infrastructure defensive techniques. It will include tools and techniques for vulnerability assessment as well as penetration testing processes. There will be a focus on processes and techniques for improving the defensive capability of that infrastructure.

CYBR 4893: Internet of Things: Applications and Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of 'C' or better in (CYBR 3200 and CYBR 4323), and admission to the Bachelor of Science in Cybersecurity E-Major

This course introduces core knowledge and skills required to develop, design and secure IoT solutions. Students will analyze requirements, develop human-device interaction and learn about broader trends and characteristics in IoT. In addition, students will evaluate the security design of IoT-connected products.

Dance

DANC 1107: Dance in Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English and Mathematics Learning Support, if required.

Through an examination of the role of arts in society, and an in-depth study of selected dance events, this interactive course provides an understanding of the creative process and develops skills in creativity and critical analysis. Heightened perceptual abilities will be developed through class experiences and field visits to a variety of arts events in dance, music, visual arts, and theater. (Attendance at some events requires paid admission.)

DANC 2000: Dance History I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Explores dance as a reflection of culture and as an art form from the earliest societies to the present. International ballet, modern dance, and American dance will be observed closely as art forms and as commercial entertainment. Throughout the course students will read from books the observations of prominent dance critics, and they will view recordings of acclaimed dance pieces. Cultural influence and the contributions of individual artists will be investigated.

DANC 2100: African Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Students experience a variety of African dance forms, understand their relationship to the native culture, and study the technical aspects of their performance. This course may be taken twice for credit.

DANC 2200: Tap Dance Technique I

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Students develop rhythmic complexity and performance techniques in tap dance. They will develop an understanding and experience of a variety of tap dance styles along with a historical understanding of the development of tap as an American art form. May be taken twice for credit.

DANC 2210: Tap Dance Technique II

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 2200

Students strengthen foundational skills covered in Tap Dance I. They further develop rhythmic complexity, performance quality, and a deeper understanding of various tap styles. This course may be taken twice for credit.

DANC 2500: Indian Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

This is an introductory course of Indian Classical dance techniques. Students explore the movement styles of Indian Classical dances from historical, cultural, and aesthetic perspectives.

Notes: May be taken twice for credit.

DANC 2713: Dance Production

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Permission of the instructor.

This course introduces students to stagecraft and live theatrical production. Students are charged with production assignments in support of public productions sponsored by the Department of Dance.

Notes: This course may be repeated for a total of two times for credit.

DANC 2714: Dance Performance

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Permission of the instructor.

This course includes individually designated performance assignments in support of public productions sponsored by the Department of Dance. Students rehearse and take class weekly, in addition to show week responsibilities.

Notes: This course may be repeated a total of 4 times for credit.

DANC 2715: Dance for Camera

0 Class Hours 3 Laboratory Hours 2 Credit Hours

The course is designed to introduce digital video technology in dance through the acquisition of technical and creative skills required to choreograph, compose, edit, and disseminate Dance for Camera works.

Notes: The course may only be taken once for credit.

DANC 3000: Musical Theatre Dance: Styles I

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101

An introduction to major dance styles for musical theater including: fundamental performance skills, exercises in body awareness, and principles of choreography for musical theater pieces. Students address the process of creating a character through movement and develop audition and rehearsal techniques through in-class work and out-of-class assignments. This course includes a survey of the history of dance in musical theater.

Notes: May be taken twice for credit.

DANC 3001: Musical Theater Dance: Styles II

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3000 or permission of the instructor.

This course offers advanced study of a selected musical theater dance style, including a history of the form and its major choreographers.

Notes: This course may be repeated for credit more than once provided the course content differs from the previous offering.

DANC 3100: Ballet I: Classical Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: TPS 1107, ART 1107 or MUSI 1107

Students explore the principles and art of classical ballet through correct alignment, flexibility, balance and kinesthetic awareness. Fundamental barre exercises, center work, traveling steps and vocabulary are introduced. Students learn to apply techniques of moving gracefully through space while acquiring an understanding and appreciation of ballet as an art form and its place in contemporary musical theater.

Notes: May be taken twice for credit.

DANC 3110: Ballet II: Classical Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3100 or permission of the instructor.

Students will acquire complex motor skills, intermediate and advanced classical ballet techniques and knowledge appropriate for successful participation in classical ballet performance. Multiple turns and beats are explored, along with beginning pointe work in some cases, as well as petite allegro and grand allegro combinations.

Notes: May be taken twice for credit.

DANC 3120: Ballet III: Classical Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3110 or permission of the instructor.

This is an intermediate-advanced level ballet technique course for advanced dancers. Students will continue developing complex motor skills with multiple turns and beats, as well as musicality in classical ballet technique. Female dancers will work en pointe and male dancers will work on men's combinations.

Notes: May be taken twice for credit.

DANC 3130: Ballet IV: Classical Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3120 or permission of the instructor.

This is an advanced ballet technique course for pre-professional dancers. Emphasis is placed on complex movement sequences, ensemble awareness, classical repertory, advanced pointe technique and men's combinations.

Notes: May be taken four times for credit.

DANC 3200: Jazz Dance: Styles I

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101

Students explore the principles and art of jazz dance through correct alignment, body control, flexibility, weight shift and rhythmic control. Center work, stretching, isolations, extensions, turns, jumps, simple combinations and vocabulary are introduced. Students learn to apply techniques of defined traveling movements in a range of dynamic and changing rhythms while acquiring an understanding and appreciation of jazz dance as an art form.

Notes: May be taken twice for credit.

DANC 3210: Jazz Dance: Styles II

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3200 or permission of the instructor.

Students acquire complex motor skills, intermediate and advanced techniques and knowledge appropriate for the successful participation in jazz dance performance. Multiple simultaneous isolations, contracted falls and turning jumps are explored, along with movement combinations of 64 beats and longer.

Notes: May be taken twice for credit.

DANC 3220: Jazz Dance: Styles III

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3210 or permission of the instructor.

This is an intermediate-advanced jazz technique course for the advanced dancers. Emphasis is placed on learning complex and challenging combinations with correct body placement and balance. Students will continue developing their motor skills, jazz dance techniques, musically and artistry.

Notes: May be taken twice for credit.

DANC 3230: Jazz Dance: Style IV

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3220 or permission of the instructor.

This is an advanced jazz technique course for pre-professional dancers. Emphasis is placed on continuing to develop advanced level performance techniques and learning technically, musically and artistically challenging combinations as well as professional repertory.

Notes: May be taken four times for credit.

DANC 3300: Modern Dance I: Contemporary Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101

Students explore the principles and art of modern dance through correct alignment, endurance, strength, flexibility, balance and kinesthetic awareness. Fundamental barre exercises, center work, traveling steps and vocabulary are introduced. Students learn to apply techniques of moving gracefully through space while acquiring an understanding and appreciation of modern dance as an art form.

Notes: May be taken twice for credit.

DANC 3310: Modern Dance II: Contemporary Dance Techniques

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3300 or permission of the instructor

Students acquire complex motor skills, intermediate and advanced movement techniques and knowledge appropriate for the successful participation in modern dance performance. Standing falls, extended off-center balances, and turning jumps are explored, along with movement combinations of 64 beats and longer.

Notes: May be taken twice for credit.

DANC 3320: Modern Dance III: Contemporary Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3310 or permission of the instructor.

This is an intermediate-advanced modern technique course for advanced dancers. Students will continue to develop neuromuscular coordination, correct alignment, body placement and balance. Students will also continue to develop proficiency in one or more movement styles and learn intermediate-advanced level repertory.

Notes: May be taken twice for credit.

DANC 3330: Modern Dance IV: Contemporary Dance Technique

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3320 or permission of the instructor.

This is an advanced modern technique course for the pre-professional dancer. Emphasis is placed on developing complex neuromuscular coordination, correct alignment, body placement and balance. Students will be expected to develop proficiency in multiple movement styles and learn advanced repertory.

Notes: May be taken four times for credit.

DANC 3398: Internship

1-3 Credit Hours

Prerequisite: Permission of the director of dance.

A supervised, credit-earning work experience of one academic semester with a previously approved professional dance or theater company, dance studio, art agency or government agency serving the arts.

DANC 3500: Pas de Deux/Pointe

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: DANC 3100 or permission of the instructor.

This course develops a student's partnering skills in dance through increased technical development and the learning of classical repertory. A portion of this course focuses on the development of pointe technique for women and classical variations for men. This course is designed to develop the advanced-intermediate level dance student's ability to transfer classical ballet skills into partnered pas de deux work.

Notes: May be taken twice for credit

DANC 3550: Choreography I

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Two 3000-level DANC classes or permission of the instructor.

This course introduces dance choreography including improvisational techniques and choreographic devices appropriate for the concert stage.

DANC 3600: Dance Improvisation

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101

In this course, students will creatively discover and investigate the body's potential to move without preconception. Through a variety of movement stimulation exercises students are encouraged to develop their inner creativity and explore movement invention.

Notes: May be taken twice for credit.

DANC 3700: Body Conditioning and Somatics

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101

This course offers the study of a variety of physical conditioning methods such as yoga and Pilates combined with injury prevention techniques that promote physical efficiency and physical development of the body.

Notes: May be taken twice for credit.

DANC 4010: Dance History II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 2000

A historical study of prevalent twentieth-century dance forms and their development. Socio-cultural influences in dance and the contributions of individual artists is investigated and researched. A portion of this course studies the history of dance in world cultures and global trends in the development of dance as an art form.

DANC 4100: Dance Kinesiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 2000

A study of the science of the human body, its anatomy and movement physics.

DANC 4200: Analysis and Criticism of Dance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 2000

Students develop analytical and critical skills in dance through an understanding of core dance principles, developing refined observation skills, and the study of dance journalism.

DANC 4300: Dance Pedagogy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 2000 and ENGL 1102

Students study the philosophical and practical principles associated with the teaching of dance as an art form. Through practical application of theoretical learning objectives, students learn to identify and work conceptually from core principles in technique and pedagogy.

DANC 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects.

DANC 4490: Special Topics

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Topics of special interest to students and faculty.

DANC 4500: Choreography II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two 3000-level DANC classes or permission of the instructor.

This course introduces dance choreography including improvisational techniques and choreographic devices appropriate for the concert stage, musical theater, children's theater or educational theater.

DANC 4800: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 4010 or permission of the director of dance.

This course evaluates the students understanding of practical, aesthetic, and critical issues in dance as an art form in contemporary society. Students discuss theoretical principles used by contemporary artists that support the application of contemporary principles in the field of dance.

DANC 4900: Senior Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DANC 4010 and 90 credit hours.

Students produce a creative work based on a research project that results in a public performance.

Digital Writing and Media Arts

DWMA 2050: Digital Collaboration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course focuses on theories of collaboration and the use of digital tools to write, revise and design professional, collaborative materials in interactive work teams for digital spaces. It introduces students to the processes and practices of collaboration that help them participate as strong leaders and strategists on teams in personal, academic and professional settings. Students create experiential and on-line community engagement projects grounded in real-world contexts.

DWMA 2170: Introduction to Digital Media and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course provides an introduction to the Digital Writing and Media Arts department by surveying contemporary digital media-aesthetics, technology, politics, economics-and related cultural formations for careers in technical communication, visual design, and creating content for interactive media. This approach provides an introduction to key concepts and critical methodologies that are essential to understanding digital media as both technological tools and cultural artifacts.

DWMA 3400: Front-End Development I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course introduces students to front-end web development with an emphasis on learning to code websites without relying on content management systems or templates. This course focuses primarily on HTML and CSS in addition to covering basic user interface design principles.

DWMA 3430: Visual Design I for Content Creators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 2170

This course is an introduction for content developers and information designers to the fundamental elements and principles of visual design in digital environments and the application of these concepts to user interfaces and information graphics. Students study elementary color theory and typography in addition to an introduction to production techniques and current software applications.

DWMA 3800: Front-End Development II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 3400

This course allows students to build upon their knowledge of front-end development for websites and apps to produce complex, creative, and responsive designs. In addition to developing an advanced understanding of CSS and HTML, students are introduced to the concept of APIs and JavaScript, another front-end programming language.

DWMA 4430: Visual Design II for Content Creators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 3430

This course further examines the role of visual design for digital content creators and information designers. Students develop competency with visual design through completion of practical projects that use typography, photographs, illustrations, and information graphics. Projects focus on the interplay between text and image as it relates to various digital media.

DWMA 4500: Front-End Development III

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 3800

In this project-based class, students continue their growth as front-end web developers through experiential learning. The focus of this class is to allow advanced students to pair aesthetic skills with an expanded knowledge and engagement with JavaScript.

DWMA 4800: Project Portfolio

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 3400, DWMA 3430, Senior Status; completion of 24 hours of courses in major (beyond Area F).

This course is the final senior course for all DWMA major programs. The course examines portfolios as professional tools and includes portfolio, communication and design theory and practices. Students develop professional portfolios of revised documents and artifacts from degree course projects, internship experiences, and/or work history. Students also complete a career unit in which they develop career documents and strategies tailored for their professional career options.

Early Childhood Education

ECE 2205: Organization and Administration of Early Childhood Programs

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: EDUC 2110

In this course candidates identify high-quality administrative and programming practices for young children's programs, evaluate the effectiveness of early care, learn administration practices through a 15-hour observation experience in a child care center, and develop a resource portfolio useful to early care and education administration. Additionally, candidates demonstrate knowledge of appropriate child behavior guidance strategies by developing a guidance plan.

Notes: A criminal background check is required of candidates prior to the observation.

ECE 2220: Practicum

3 Credit Hours

Prerequisite: Approval of the director of the Center for Education Placements and Partnerships, advisor, and department chair.

A practicum in a classroom during which the student will be actively involved in the teaching-learning process under the guidance of a professional teacher.

ECE 2250: Child Development and Early Learning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 with a "C" or better

This course addresses theories of human development from conception to middle childhood (age eleven years) with attention to the social, emotional, physical and cognitive domains. Issues relating to family, diversity, and culture will be addressed as they relate to development and supporting children's learning. Candidates will also explore effective learning environments, health, safety & nutrition for children. Observations in natural settings will be required.

ECE 2540: Health, Wellness and the Young Child

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 with a "C" or better

This course is designed to provide teacher candidates with opportunities to understand the importance of a healthy and safe environment for young children. Issues include infectious disease control, injury and accident prevention, chronic health care conditions and illnesses, child abuse and neglect, and proper meal planning and nutrition. Upon successful completion of this course, teacher candidates will be awarded certification in Basic First Aid and CPR for infants and young children.

ECE 2590: Families, Communities and Schools: Partners in Education

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 with a "C" or better

This course analyzes family, school, and community resources as related to the family life cycle; explores environmental approaches; and explores careers related to children and families. Strategies to improve communication and collaboration are emphasized with a focus on family types, cultures, languages, economic conditions, school systems, community services, political forces, advocacy groups, and other factors that impact young children and their families. Fifteen hours of service learning at an approved site is required.

ECE 3305: Classroom Assessment for Elementary Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECE 3320, ECE 3313, ECE 4408 ("C" or higher), and INED 4482

Corequisite: ECE 4409, ECE 3330, INED 3304, INED 4483

This course examines purposes, principles and uses of assessment in relation to instructional decision making in the elementary classroom.

ECE 3313: Preschool Curriculum and Assessment

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program

In this course candidates design and implement developmentally appropriate, standards-based curriculum and lessons for preschool children; practice developmentally appropriate screening and assessment with preschool children; and describe effective techniques for working with young children with challenging behaviors. A 30-hour field experience required. Candidates must pass the College of Education's mandatory background check and a mandatory state Bright from the Start criminal background check prior to beginning field experience.

Notes: Verification of professional liability insurance is required prior to placement in the field experience.

ECE 3320: Teaching Reading and Writing in the Elementary Grades PK-2

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program, EDUC 2130

Corequisite: ECE 3313, ECE 4408, INED 4482

This course emphasizes research-based strategies for instruction in reading, writing, listening, and speaking in preschool to second grade. Culturally responsive and developmentally appropriate literature contextualizes classroom experiences in lesson planning, literacy instruction, and assessment. This course includes multiple theoretical perspectives and approaches to literacy instruction as well as media and extensive field experience to enhance learning.

ECE 3330: Teaching Reading and Writing in the Elementary Grades 3-5

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: ECE 3320, ECE 3313 and ECE 4408 ("C or higher)

Corequisite: ECE 3305

The relationship of reading, writing, speaking, and listening is studied in the context of the diverse elementary classroom, grades 3-5. Assessment, instruction, management, and differentiation of reading comprehension and writing composition are stressed as well as the incorporation of technology to support and extend literacy skills for all learners.

ECE 3340: Diagnosis and Application of Literacy Instruction in the Early Childhood Classroom

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education program, ECE 3320; ECE 3330

This course is the study and application of diagnostic and instructional activities for the pre-service elementary and early childhood classroom teacher. It includes both formal and informal diagnosis, interpretation of formal and informal tests results, planning and implementation of instructional actions, application of literacy diagnosis across the curriculum, and diagnosis of the classroom literacy environments and instruction. Includes a 20 hour field experience.

Notes: Proof of liability insurance and background check are required for placement.

ECE 3360: Reading, Process Writing, and Language Arts, K-5

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education and ECE 3320

The relationship among reading, writing, speaking, listening, and viewing is studied in the context of national and state K-5 standards. Context area reading and writing are taught within a text-based instructional framework. The course will ensure that candidates understand language development, the transition from learning to read to reading to learn, the connection between reading and writing, the process approach to writing instruction, and the use of technology to extend and support literacy.

ECE 3364: Children's Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education program

This course is a survey of literature appropriate for infants through kindergarten and early grade readers. It reviews both current and traditional works in several genres and considers various approaches for teaching such literature.

ECE 3398: Internship

1-12 Credit Hours

Prerequisite: Permission of the director of the Center for Education Placements and Partnerships, advisor, and department chair.

This course is comprised of a supervised teaching experience for teachers seeking certification renewal credit.

ECE 3410: Human Reproduction, Perinatal Development, Health, Safety, and Nutrition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.

Corequisite: ECE 3405 and ECE 3420

Students will learn about human reproduction, the effects of heredity and environment upon fertility, conception, and prenatal development. They will study development from conception to birth, the stages of pregnancy, prenatal health care, the birth process, and associated risk factors. They will learn the importance and effects of maternal attachment, bonding, and nursing. They will study the newborn's amazing capabilities, the importance of effective care, the nutritional needs of mother and child, infectious disease control, and consider safety issues.

ECE 3415: Infants: Stages of Growth and Development & Developmentally Appropriate Care and Activities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.

Corequisite: ECE 3410, ECE 3420.

This course provides students with an understanding of the importance of infant development from birth to eighteen months of age. Students will study the dramatic physical, sensorial, emotional, and cognitive growth that occurs during each stage of development. They will learn to create supportive environments and to use appropriate materials, activities, and methods of care and education that can enhance the important developmental periods that children experience from birth to 18 months of age.

ECE 3420: Observation and Supervised Practice Teaching - Infants

1 Class Hours 7 Laboratory Hours 5 Credit Hours

Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.

Corequisite: ECE 3410, ECE 3415.

Teacher candidates will learn to develop, plan, and implement strategies for the care and education of infants from birth to 18 months of age. Candidates will teach under the supervision of childcare professionals and a university faculty. Candidates will develop skills in the application of developmentally appropriate practices with infants. Candidates will meet with a university supervisor each week to review planning and teaching strategies and to discuss their concerns. Verification of professional liability insurance is required prior to placement in the teaching experience.

ECE 3435: Toddlers: Stages of Growth and Development & Developmentally Appropriate Care and Activities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.

Corequisite: ECE 3445.

Students will develop an understanding of the importance of infant development from eighteen months to three years of age. Students will learn to identify and support the important physical, sensorial, emotional, language, and cognitive growth that take place during each stage of development. They will learn how to enhance that development through the creation of supportive environments and through the application of developmentally appropriate activities, methods, and materials.

ECE 3445: Observation and Supervised Practice Teaching - Toddlers

1 Class Hours 7 Laboratory Hours 5 Credit Hours

Prerequisite: Admission to the Birth through Kindergarten Teacher Education Program.

Corequisite: ECE 3435.

Teacher candidates will learn to develop, plan, and implement strategies for the care and education of toddlers from 18 months to 3 years of age. Candidates will teach under the supervision of child care professionals and university faculty. Candidates will develop skills in the application of developmentally appropriate practices with toddlers. Candidates will meet with a university supervisor each week to review planning and teaching strategies and to discuss their concerns. Verification of professional liability insurance is required prior to placement in the teaching experience.

ECE 3510: Fostering Young Children's Learning Through Play

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education program

This course is designed to provide teacher candidates with the knowledge and understanding of children's play in a variety of settings. A review of play theories as well as a historical approach to play is presented. Teacher candidates have the opportunity to explore the relationship of play to curriculum development and assessment. Issues regarding gender, culture, second language acquisition,

socioeconomic status, stress and personality types are discussed in relationship to play.

ECE 3520: Infant and Toddler Curriculum and Assessment

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education program

In this course candidates design and implement developmentally appropriate curriculum and assessment for infants and toddlers through an intensive 30-hour field experience in a child care center with infants and toddlers. Candidates also utilize developmentally appropriate practices for all infants, toddlers and very young children, including those with cultural and language differences and/or special needs. Criminal records check from certified backgrounds and Bright from the Start are required prior to field experience.

ECE 3530: Movement, Music and Art in Birth through Kindergarten Programs

2 Class Hours 1 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to Teacher Education program

Corequisite: ECE 4555

Teacher candidates will learn the utilization of art, music, movement and creativity to instruct children from infancy through five years of age. Topics that will be studied include movement exploration, children's games, finger plays and songs. This course may require a field experience in an early learning environment. Verification of professional liability insurance is required.

ECE 3560: Instructing Young Children through Art, Music, and the Aesthetic Domain

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program, ECE 2205 and ECE 2250

Corequisite: **ECE 4515, ECE 3530, and ECE 4545.**

The role of art, music, and creativity will be explored. Teacher candidates will understand the relationship of the infant and young child's development to creative expression, art, and music. Methods of implementing art, music, and creative development in teaching infants and young children will be taught.

Notes: An intensive field experience will be included.

ECE 3565: Infant/Toddler Practicum

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: ECE 2205

This course is designed to provide the knowledge and skills to teach children ages six weeks through 36 months. Participation in an intensive 60-hour, hands-on field experience in selected infant toddler/ classroom is required. Lesson plan development, implementation and assessment of infants and toddlers are addressed. Candidates learn how to effectively work with diverse infants and toddlers, including those babies and toddlers with developmental delays and English-language learners.

ECE 3570: Preschool Practicum

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: ECE 2205

This course is designed to provide the knowledge and skills to teach children ages 3 years through 5 years. Teacher candidates taking this course will participate in an intensive 60-hour, hands-on learning experience in selected preschool/pre-kindergarten classrooms. Lesson plan development, lesson implementation, and assessment of diverse preschoolers are addressed in this course. Teacher candidates learn how to effectively work with diverse preschoolers/pre-kindergarteners, including those young children with developmental delays and English Language Learners.

ECE 3575: International Approaches to Early Care and Learning

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to the Teacher Education

This course addresses comparative early care and instruction for infants and children in international settings, including countries in Asia, Africa, Europe, Central and South America Australia and North America. Candidates will explore the diversity of prenatal care, parenting, family practices, and international and child welfare issues. Candidates will also develop knowledge and skills of global awareness and instruction in early learning.

ECE 4305: Motor Development and Refined Control of Movement

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECE 3405.

Corequisite: ECE 4310, ECE 4315, ECE 4320.

Students will learn how essential movement is to the physical, emotional, and cognitive development of children. They will learn to present children with motives of activity in which action and interest combine to provide irresistible activities that children love to repeat spontaneously. Students will understand that children develop independence and achieve concentration and self-realization when they work with developmentally appropriate materials. Students will learn to implement teaching strategies that enhance the child's physical, cognitive, emotional, and social development.

ECE 4310: A Conceptual Framework for the Montessori System of Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education program

Insights into the nature of child development reveal that respect for the child's inner teacher serves as the integrating principle for the effective education of young children. Students will discover that the sensitive periods are the most powerful times for learning. Students will learn the importance of the prepared environment as the third essential element in the teaching learning equation. This environment supports individual and collaborative learning and encourages positive social interaction. Students will learn that the Prepared Environment encourages active engagement in learning, the

emergence and development of concentration and intrinsic motivation. This Conceptual Framework undergirds the research-based Montessori System of Education.

ECE 4315: Sensorial Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Corequisite: ECE 4305, ECE 4310, ECE 4320.

Candidates will learn to use a rich array of developmentally appropriate materials that address each of the child's senses in ways that establish foundations for cognitive growth. Work with these materials promotes the development that children need for the successful mastery of writing, reading, and mathematics skills. Candidates learn to give sensorial presentations with Geometry, Botany, Geography, and Peace Education Curriculum materials and also learn to help children develop listening, sight singing and musical notation skills.

ECE 4320: Observation and Supervised Internship - Early Childhood I

1 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to program

Corequisite: ECE 4305, ECE 4310, ECE 4315.

Candidates will learn to develop, plan, and implement strategies for the care and education of 3 to 5 year old children. Candidates will teach under the supervision of childcare professionals and university faculty. Candidates will develop skills in the presentation of developmentally appropriate practical life and sensorial materials to 3 to 5 year old children. Verification of professional liability insurance is required prior to placement in the teaching experience.

ECE 4335: Acquisition of Language and Literacy Skills in One or More Languages

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Corequisite: ECE 4345, ECE 4355, ECE 4336

Students will be introduced to classified vocabulary and the presentation of the nomenclatures of Biology, Geography, Zoology, History, and the Arts that enrich and extend children's oral language skills. Students will be introduced to research-based key words, cursive sandpaper letters and movable alphabets help children develop phonemic awareness and achieve sound-symbol associations. Candidates will present writing activities that lead children to discovery reading spontaneously. Candidates will learn to apply the principles of second language acquisition research to the instruction of English language learners.

ECE 4336: The Competent Manufacture and Presentation of Language Materials

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Corequisite: ECE 4335, ECE 4345, ECE 4355

Students will manufacture and practice presenting the many research-based language materials designed for use in offering developmentally appropriate language arts presentations and

activities to 3-5 year old children. These materials are not available from Montessori suppliers, so each teacher prepares 70 selected materials for his/her own classroom. Students practice with the materials to develop and refine the skills they need to give language presentations to young children effectively.

ECE 4345: Preparing the Mathematical Mind of the Young Child

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Corequisite: ECE 4335, ECE 4336, ECE 4355

Research-based materials and teaching/learning strategies are used to present numeration and mathematics to young children. Candidates will learn to present linear counting, the four operations and tables, cumulative and squaring operations, binomial addition, and the multiplication of polynomials to young children. Memorization materials are presented with which to review and enhance the recall of known number facts.

ECE 4355: Observation and Supervised Internship - Early Childhood

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: ECE 4320

Corequisite: **ECE 4335, ECE 4336, and ECE 4345.**

Teacher candidates will learn the utilization of art, music, movement and creativity to instruct children from infancy through five years of age. Topics that will be studied include movement exploration, children's games, finger plays and songs. This course may require a field experience in an early learning environment. Verification of professional liability insurance is required.

ECE 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair prior to registration.

A directed study is a concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

ECE 440I: Teaching Mathematics in Early Childhood Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 3318, ECE 4635

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in preschool through fifth grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the mathematics curriculum.

Notes: Verification of professional liability insurance is required prior to placement in the field experience.

ECE 4402: Teaching Science in Early Childhood Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISCI 2001, ISCI 2002, ECE 4635

This course is the study of integrating science concepts, principles and processes into the teaching of science in preschool through fifth grade. Emphasis will be placed upon developmentally appropriate practices in planning, implementing and evaluating instruction in the science curriculum.

Notes: Verification of professional liability insurance is required prior to placement in the field experience.

ECE 4403: Teaching Social Studies in Early Childhood Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A "C" or better in (HIST 2111 or HIST 2112)

Corequisite: ECE 4635

This course consists of integrating social studies across the curriculum and effective strategies for planning, implementing and evaluating instruction in social studies in preschool through fifth grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the social studies curriculum.

ECE 4404: Teaching Reading & Language Arts Across the Curriculum in Early Childhood Education

2 Class Hours 5 Laboratory Hours 3 Credit Hours

Prerequisite: EDUC 3302 and ECE 3340

This course encompasses the study of the integration of language arts across the curriculum and effective strategies for planning, implementing and evaluating instruction in reading, writing, listening and speaking in preschool through fifth grade. Emphasis on assessment techniques and approaches to conducting guided lessons in reading and writing that are culturally and developmentally appropriate. Includes an extensive field experience and media use.

Notes: Verification of professional liability insurance is required prior to placement in the field experience.

ECE 4405: Teaching Language Arts and Social Studies in Early Childhood

2 Class Hours 5 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the TOSS program and ECE 3340

This course includes the study and application of social studies and language arts as integrative elements of the elementary curriculum. Candidates will focus on the nature and theory in order to prepare students to become citizens actors, adopt problem solving dispositions and achieve excellence in the application of oral and written communication skills.

Notes: Verification of professional liability insurance is required prior to placement in the field experience.

ECE 4406: Teaching of Elementary Education Internship

0 Class Hours 9 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the TOSS program.

Corequisite: ECE 4401; ECE 4402; ECE 4403; ECE 4404.

This course is an intensive and extensive field experience in an elementary school. Candidates will be required to spend seven and one-half hours per day, five days a week, for four weeks. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of professional liability insurance and a criminal background check are required prior to receiving a school placement.

ECE 4408: Teaching Mathematics in Grades P-2

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education Program, EDUC 2130

Corequisite: ECE 3320

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in preschool through second grade. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the elementary mathematics curriculum. This course includes field experience to enhance learning.

ECE 4409: Teaching Mathematics in Grades 3-5

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or higher in ECE 4408, A grade of "C" or higher in MATH 3317, ECE 3320, and ECE 3313

Corequisite: ECE 3305

This course consists of the integration of mathematics concepts, principles and processes into the teaching of mathematics in grades three through five. Emphasis is placed upon developmentally appropriate practices and culturally relevant pedagogies in planning, implementing and evaluating instruction in the elementary mathematics curriculum. This course includes field experience to enhance learning.

ECE 4410: Reading and Writing Across the Curriculum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Corequisite: ECE 4660

This course consists of integrating language arts across the curriculum and effective strategies for planning, implementing and evaluating instruction in reading, writing, listening, and speaking in preschool through fifth grade. Emphasis is placed upon assessment techniques and approaches to conducting guided lessons in reading and writing that are culturally and developmentally appropriate.

ECE 4473: Student Teaching: Early Childhood (P-5)

0 Class Hours 36 Laboratory Hours 12 Credit Hours

Prerequisite: Admission to student teaching.

Full-time teaching experience under the supervision of a public school cooperating teacher and college supervisor. Verification of professional liability insurance is required before placement in student teaching.

ECE 4475: Designing and Sustaining a Classroom Learning Community

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Corequisite: ECE 4650

This course is designed for elementary teacher candidates to explore ways in which positive classroom learning communities are designed, implemented, and sustained. Teacher candidates will also examine their own cultural backgrounds and students' cultural backgrounds, and investigate ways in which they may strengthen teacher-student and student-student relationships in the classroom. Theories investigated in the course will be discussed in relation to the candidates' experiences within the clinical practicum.

ECE 4490: Special Topics in Education

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

This course is comprised of selected special topics of interest to faculty and students.

ECE 4515: Methods in Teaching and the Development of Teaching Language & Literacy in Birth through Kindergarten

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education

Corequisite: ECE 4545

This course is designed as an introduction to the study of language acquisition and development in typically and atypically developing infants through age five years. Candidates learn ages and stages of language development, family and cultural influences, and the importance of a language-rich environment. Candidates also learn methods and strategies for teaching pre-reading and reading to very young children. This course may require a field experience in an early learning environment.

ECE 4525: Methods of Nurturing Second Language Acquisition

2 Class Hours 5 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program; EDUC 2120

Candidates will learn the language proficiency levels for the four skills and appropriate techniques for working with English Language Learners and families. Candidates will examine major principles of linguistic systems and their acquisition as they occur in first and additional languages. Candidates will

explore oral and written language and become familiar with assessment tools for evaluating second language development. A 15-hour field experience is required.

Notes: Verification of professional liability insurance is required.

ECE 4535: Methods of Instruction and Identification of B-5 Children with Special Needs

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission into Teacher Education

This course is designed to assist the teacher candidate in preparing environments to meet the needs of diverse children with developmental delays, medical conditions, and cognitive, language, and emotional differences. Legal issues and terms involving preschool special education will be addressed. Curriculum modification and environmental accommodations for children with special needs will be reviewed. Assessment techniques and the role of service providers will be discussed. This course will include a 15-hour field experience.

Notes: Verification of professional liability insurance is required.

ECE 4545: Methods in Math & Science in Birth through Kindergarten

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education

Corequisite: ECE 4515

This course focuses on integrating the science processes, principles, and concepts of inquiry-based science into early childhood education. Candidates develop and implement math and science curriculum in developmentally appropriate ways to diverse young children. Candidates also design and implement developmentally appropriate math and science assessments with young children. A field experience in an early learning environment may be required.

ECE 4555: Methods for Teaching Social Studies Birth through Kindergarten

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education

Corequisite: ECE 3530

Candidates plan and teach developmentally appropriate social studies lessons for birth-through-kindergarten students using research-based early childhood teaching methods. Candidates also design and implement developmentally appropriate assessments with young children in their field experience. Additionally, candidates design and evaluate discipline and guidance practices to promote healthy social and emotional development.

ECE 4635: Practicum

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Corequisite: ECE 4403

Candidates are placed in school settings for the purpose of developing their skills in the areas of planning and instruction. Observations and participation in a classroom setting are required with a focus on social studies and culturally relevant learning experiences, materials, and equipment.

ECE 4650: Yearlong Clinical Experience I (P-5)

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to Teacher Education, Admission to the Yearlong Clinical Experience, Issued Pre-Service Certificate, ECE 3340, ECE 4403, and ECE 4635

Corequisite: EDUC 4610, INED 3305, and INED 4432

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in elementary education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

ECE 4660: Yearlong Clinical Experience II (P-5)

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: ECE 4650; Eligibility to take GACE

Corequisite: ECE 4410

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in elementary education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

EDSM 1101: Step I: Inquiry Approaches to Teaching

1 Class Hours 1 Laboratory Hours 1 Credit Hours

This course provides students with the opportunity to explore teaching as a career. Following an introduction to the theory and practice behind excellent inquiry-based science instruction, students teach lessons in elementary classrooms to obtain firsthand experience in planning and instruction.

Notes: Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement. Course is restricted to participants in the KSUTeach program.

EDSM 1102: Step 2: Inquiry-based Lesson Planning

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Prerequisite: EDSM 1101 with a grade of "C" or better.

Students continue developing lesson planning skills learned in EDSM 1101 as they become familiar with middle school science curricula. After observing a lesson being taught in a middle school classroom, students plan and teach inquiry-based lessons to middle school learners. Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement. Course is restricted to participants in the OwlTeach program

Economics

ECON 1000: Contemporary Economic Issues

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of all learning support English and learning support Mathematics requirements.

This course provides students with the knowledge and tools necessary to critically examine social and policy issues from an economic perspective. Fundamental economic questions as they relate to individuals, firms, and society in the modern global world are addressed. Students learn about different economic systems, how markets function, the role of government in the economy, the basis for international trade, measurement of macroeconomic performance, and the impact of globalization on living standards and economic growth.

ECON 2100: Principles of Microeconomics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: MATH 1111 or higher; Non-business Majors: 3 credit hours of MATH numbered 1101 or higher.

Analysis of price and output determination under various market structures, income distribution, resource allocation, domestic problems and international trade. This course is required for Business majors and International Affairs majors.

ECON 2107: Introduction to Economic Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1111 or higher.

An analysis of finance and the economics of production in society. Particular emphasis is given to the study of fiscal and monetary policies, and their impact on industry. Topics include opportunity cost, marginal productivity analysis, national income analysis, the determinants of market demand, pricing strategy, market power, the importance of the labor market in American industry, and how time and interest rates affect the economy.

ECON 2200: Principles of Macroeconomics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: ECON 2100 and ((MATH 1106 and MATH 1160) or MATH 1190); Non-business Majors: ECON 2100 and 6 credit hours of MATH numbered 1101 or higher.

Analysis of socioeconomic goals, money and credit systems, theories of national income, employment and economic growth.

ECON 2300: Business Statistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Business Majors: MATH 1111; Non-business Majors: MATH 1101

An introduction to descriptive and inferential statistics with an emphasis on business applications. Topics covered include data summarization, probability distributions, sampling methods, confidence intervals, hypothesis testing, online data sources, and ethics in research. Small case studies are used to illustrate statistical applications within business settings.

ECON 3300: Applied Statistical and Optimization Models

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200 and (ECON 2300 or STAT 1107), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will convey a working knowledge of several of the most commonly employed quantitative models to support data analysis and improved decision-making within a business environment. Students will learn to identify and apply the appropriate modelling techniques as well as how solve the resultant models via spreadsheet tools and applications. In addition, the course promotes and develops problem-solving and critical thinking skills through the evaluation of problem scenarios and short case-studies.

ECON 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. For sophomore, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

ECON 3398: Internship

1-12 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised, credit-earning work experience of one academic semester with a previously approved

business firm, private agency, or government agency. A research paper is required to receive credit. For junior or senior students who wish to participate in an on the job experience in which they may apply their academic education. The work experience may not be with a current employer. This course will be graded on an S/U basis.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

ECON 4210: Money and Financial Markets

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200 and FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Analyzes the operation, structure, regulation, and control of financial markets emphasizing the effects on the level and term structure of interest rates, economic activity, and business decisions. Focuses on monetary theory, monetary and fiscal policies, the Federal Reserve System, and financial institutions, markets, and instruments.

ECON 4310: Economic Development in Global Perspective

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An analysis of key development issues both as they relate to individual countries and to factors linking countries, such as international trade and capital flows. Topics addressed include savings, investment, technology, demographics, human resources, and economic institutions. Investigates these topics for third world countries and those that are more economically advanced.

ECON 4400: Directed Study

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Special topics of an advanced nature not in the regular course offerings.

ECON 4410: International Trade and Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Principles of international trade and finance. Management of foreign operations of the firm within constraints of the international environment. Study of international currency flows, exchange rates and international banking practices.

ECON 4490: Special Topics in Economics and Quantitative Analysis

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.

Selected special topics of interest to faculty and students. This course may be taken more than once

Notes: Up to 9 credit hours are permitted.

ECON 4510: Microeconomics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Theory of the determination of price and output in both partial and general equilibrium. Topics include the theory of the firm, consumer behavior, analysis of market structures, welfare economics, social choice, the theory of games, and asymmetric information.

ECON 4530: Public and Urban Economics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course considers the application of economic models to analyze the role of government in correcting market failures, the effects of taxation and expenditure policies on the allocation of resources, and the distribution of income. There is an emphasis on the optimal provision of public goods, the incidence and behavioral effects of taxes, regulation of externalities, public choice and the spatial organization of the economy.

ECON 4550: The Economics of Strategy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200 and ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An economic analysis of the fundamental issues that underpin the firm's strategic pricing, production, and resource allocation decisions in alternative competitive environments. Topics include the horizontal, vertical and corporate boundaries of the firm, the nature of competitive markets and competitive interactions among firms, how the firm positions itself to compete, and how the firm designs its organizational architecture to support its competitive goals.

ECON 4610: Macroeconomics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Analysis of the determination of output, employment, interest rates, and income with emphasis on the influence of fiscal and monetary policy.

ECON 4710: Econometrics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, (ECON 2300 or STAT 1107), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Study of the tools used for estimating and forecasting demand, revenue and cost, as well as demographic characteristics of importance to an individual in a business decision-making position.

ECON 4750: Multivariate Data Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200, (ECON 2300 or STAT 1107) 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The theory and application of quantitative methods of data analysis. Emphasis is on the application of statistical principles to empirical model building in business and economics. Topics include regression analysis, analysis of variance, factor analysis, discriminant analysis, parametric and nonparametric tests, sampling techniques, and experimental design.

ECON 4760: Business Forecasting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and [(ECON 4710 and Admission to the Coles College Undergraduate Professional Program) or ((ECON 4710 or STAT 3130) and student in a Coles College Partner Program that includes this course.)]

Econometric and time series methods for forecasting business and economic data are introduced. Specific topics include: basic graphic methods for analyzing data; modeling forecasting trend and seasonality; ARMA modeling of time series; unit root and ARIMA process; forecasting volatility; evaluation and comparison of forecasting models.

ECON 4810: Quantitative Decision Models

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200 and ECON 3300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course focuses on both the theory and application of quantitative models to support decision-making under uncertainty. General topics include basic spreadsheet modeling, general probability distributions and decision making under uncertainty, and risk analysis. Specific topics to be covered include Monte Carlo Simulation, Decision Trees, and Real Options Analysis. A mixture of cases and in-class demonstrations will be used to develop your skill in applying management science approaches to decision making within a business environment.

ECON 4850: Decision Analysis and Simulation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2200 and (ECON 2300 or STAT 1107), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The theory and application of stochastic decision models. Emphasis is on the application of probability and simulation techniques to structure decision problems in business and economics. Topics include measurement of risk, decision processes, decision analysis, and static and dynamic simulation models.

Education

ECE 4598: Birth through Five Internship I

0 Class Hours variable 4 - 24 Laboratory Hours variable 1-6 Credit Hours

Prerequisite: ECE 3520, ECE 3313, ECE 2590, ECE 4525 and ECE 4535; Approval of the Department is Required

This is a supervised intensive internship in a birth through five educational setting. Participation in group instruction, lesson planning, classroom management, indoor and outdoor activities under the guidance of a collaborating teacher and university supervisor is required. Candidates will practice skills and strategies that impact the young child's development and learning. This course does not lead to Certification under the Georgia Professional Standards Commission. Note: Proof of liability insurance, College of Education approved background check, and Bright from the Start background check are required. Can be repeated for a total of 12 credit hours.

ECE 4599: Birth through Five Internship II

0 Class Hours Variable 12-36 Laboratory Hours Variable 3-9 Credit Hours

Prerequisite: ECE 4598

This is a supervised intensive internship in a birth through five educational setting. Participation in group instruction, lesson planning, classroom management, indoor and outdoor activities under the guidance of a collaborating teacher and university supervisor is required. Candidates will practice skills and strategies that impact the young child's development and learning. This course does not lead to Certification under the Georgia Professional Standards Commission. Note: Proof of liability insurance, college of education approved background check, and Bright from the Start background check are required. Can be repeated for a total of 12 credit hours.

EDUC 2110: Investigating Critical and Contemporary Issues in Education

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course engages potential education candidates in observations and interactions in schools, and analyses of critical and contemporary educational issues. Candidates investigate issues influencing the social and political contexts of educational settings in Georgia and the United States. Candidates actively examine the teaching profession from multiple vantage points both within and outside the school. Against this backdrop, candidates reflect on and interpret the meaning of education and schooling in a diverse culture. Includes the use of current technologies which are directly related to effective teaching and 15 hours of observation and participation in an appropriate school setting elementary/early childhood, middle grades, secondary or P-12 environments. Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement.

Notes: Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement.

EDUC 2120: Sociocultural Influences on Teaching and Learning

2 Class Hours 1 Laboratory Hours 3 Credit Hours

This course introduces teachers to fundamental knowledge of culture essential for effective teaching in increasingly diverse classrooms. Designed as a foundation course for subsequent courses focused on the preparation of culturally responsive teachers, this course examines 1) the nature and function of culture; 2) the development of individual and group cultural identity; 3) definition and implications of diversity. Includes 15 hours of observation and participation in an appropriate school setting- elementary/early childhood, middle grades, secondary or P-12 environments. Verification of professional liability insurance and a criminal background check are required prior to receiving a school placement.

EDUC 2130: Exploring Teaching and Learning

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: EDUC 2110

This course explores key aspects of learning and teaching through examining your own learning processes and those of others, with the goal of applying your knowledge to enhance the learning of all students in a variety of educational settings and contexts. Includes 10 hours of observation and interaction with a learner in a naturalistic setting. Current use of technology will be integrated as communication and instructional tools. Verification of professional liability insurance is required.

EDUC 2201: Teaching and Schools in a Changing Society

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

An introductory study of current issues and problems in American education from historical, political, economic, social, philosophical, multicultural, and global perspectives. Focuses on efforts of schools to adapt to a changing society, the role of the teacher as a professional educator and professional ethics. Includes the use of current technologies which are directly related to effective teaching and 30 hours of

observation and participation in a classroom setting appropriate to the students' professional interests in elementary/early childhood, middle grades, secondary, or P-12 education. Verification of professional liability insurance is required prior to enrolling in this course.

EDUC 2202: Life Span Development: Adolescent and Young Adulthood Emphasis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102.

A study of human development through the life span addressing social, moral, emotional, physical, cognitive and psychological development, with an emphasis on how these relate to learning and instruction of adolescents and young adults. Course examines impact of learning styles, developmental and cultural differences, and various levels of student abilities, exceptionalities, and health. Current use of technology will be integrated as communication and instructional tools. Teacher candidates will have the opportunity to observe in naturalistic settings.

EDUC 2204: Human Growth, Development and Learning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

A study of human development through the life span with emphasis on social, moral, emotional, physical, cognitive and psychological development as these relate to learning and instruction. Includes discussing learning styles, developmental and cultural differences, wide range of abilities and exceptionalities, and health. Current use of technology will be integrated as communication and instructional tools. Students will observe children in naturalistic settings, such as schools and day care centers.

EDUC 3110: Introduction to Urban Education

3 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

This course helps teacher candidates to 1) examine the relationship between the urban context and educational policies and practices in urban schools; 2) examine categories of race, ethnicity, class, gender, language, religion, sexuality, and ability as social relations of power that impact urban school experiences; and 3) examine the impact of the urban context on students, teachers, parents, and the community. An intensive 35-hour field component is a requirement of this course.

EDUC 3302: Curriculum and Assessment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education Program

Examines theories and principles of curriculum and assessment. Focus is placed on the identification and construction of learning outcomes and the development and selection of culturally responsive units and lesson plans. Focus is also placed on standardized and teacher constructed assessment tools consistent with these objectives. Emphasis is placed on the use of assessment tools for instructional decision-making. Technology is integrated for enhancing and assisting instruction.

EDUC 3308: Learning, Motivation, and Classroom Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Examines theories, models, and principles of learning, motivation, and classroom management in schools. In level-specific modules, particular emphasis is placed on the application of theoretical principles to early childhood, middle grades, or secondary classroom settings. Addresses learning theories, motivational theories, learning styles and individual differences, and models and strategies for implementing effective systems of time, material, environment and behavior management in diverse classroom settings. Various technological applications, including the World Wide Web, e-mail, and presentation software, will be utilized.

EDUC 3310: Multicultural Perspectives in Teaching and Learning

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: EDUC 2201

A study of the influence of diversity on teaching and learning in a pluralistic, democratic society. Examines theories and models of instruction for diversities in race, class, gender, religion, language and exceptionality found in multicultural classrooms.

EDUC 4490: Special Topics in Education

1-6. Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

EDUC 4610: Introduction to the Yearlong Clinical Experience

0 Class Hours 1 Laboratory Hours 0 Credit Hours

Prerequisite: Admission to teacher education and an issued pre-service certificate.

Corequisite: Varies by program: ARED 4650, MUED 4650, FLED 4650, HPE 4650, ENED 4650, HIED 4650, BED 4650, CHED 4650, PHED 4650, SCED 4650, MAED 4650, ECE 4650 or ECE 4660, or EDMG 4650

This course is the beginning to the co-teaching Yearlong Clinical Experience in education. Candidates will attend the entirety of pre-planning at their assigned school before the start of the academic year (the exact timing of which will depend on the placement school's schedule). Additionally, candidates will also attend the first week of the academic year in order to familiarize themselves with the policies and routines of their placement school and Collaborating Teacher.

Education - Middle Grades

EDMG 2200: Practicum

1-3 Credit Hours

Prerequisite: Permission of advisor and department chair.

An assigned practicum in a classroom during which the student will be actively involved in the teaching-

learning process under the guidance of a professional teacher. Proof of professional liability insurance is required prior to receiving a school placement.

EDMG 3300: Success in the Middle: Adolescent Development and Middle School Advocacy

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to Teacher Education, EDUC 2130

Corequisite: EDRD 3330

Candidates examine the development and diversity of middle grades learners, as well as the concept and philosophy of the middle school. Issues of teaching young adolescents and the unique role teachers must play as interdisciplinary team members, content specialists, advocates for the middle school and middle level learner are explored. Information from current research and exemplary practices will be used to extend candidate knowledge.

EDMG 3350: Planning, Instruction, and Assessment in the Middle Grades

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3300

Corequisite: ITEC 3200, EDMG 3360

This course is designed to introduce future middle grades teachers to the knowledge and skills necessary for effective planning, instruction, and assessment of a diverse population of middle grades learners. This course includes a 15-hour field experience placement in elementary grades 4-5. A current criminal history background check and proof of liability insurance is required.

EDMG 3360: Classroom Management in the Middle Grades

2 Class Hours 1 Laboratory Hours 2 Credit Hours

Prerequisite: EDMG 3300

Corequisite: EDMG 3350

This course prepares middle grades teacher candidates to create and manage positive, productive classroom environments, including those with a diverse population of learners. Candidates will develop a comprehensive understanding of the learning and behavior principles that underlie effective classroom management and acquire strategies and skills needed to implement an effective management program. This course includes a 15-hour field experience. A current criminal history background check and proof of liability insurance is required.

EDMG 3398: Internship

1-12 Credit Hours

Prerequisite: Permission of advisor and department chair.

A supervised work experience with an approved business firm, private agency or government agency. Credit is allowed only in elective areas.

Notes: Credit is allowed only in the elective areas.

EDMG 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair prior to registration.

A concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

EDMG 4401: Teaching Mathematics in Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350 and successful completion of all teaching field courses.

Corequisite: **EDMG 4650**

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching mathematics to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

EDMG 4402: Teaching Science in Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350 and successful completion of all teaching field courses.

Corequisite: **EDMG 4650**

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching science to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

EDMG 4403: Teaching Social Studies in Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350 and successful completion of all teaching field courses.

Corequisite: EDMG 4650

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching social studies to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

EDMG 4404: Teaching Language Arts in Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350 and successful completion of all teaching field courses.

Corequisite: EDMG 4650

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching language arts to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

EDMG 4405: Curriculum and Instruction in Middle Grades

4 Class Hours 2 Laboratory Hours 5 Credit Hours

Prerequisite: EDUC 3308

This collaboratively taught course is a segment of an 11-hour block designed to develop appropriate teaming skills for middle grades teachers. The teaching team models instructional strategies that exemplify the philosophy of middle school education. Students become part of an instructional team to develop effective strategies for interdisciplinary settings. Student teams are paired with school instructional teams during an extensive field experience. Proof of liability insurance is required prior to school placement.

Notes: Proof of professional liability insurance is required prior to receiving a school placement.

EDMG 4406: Methods and Management in the Middle Grades: Field Experience

0 Class Hours 9 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350

Corequisite: EDMG 4407 and two of EDMG 4401, EDMG 4402, EDMG 4403, and/or EDMG 4404.

This course is an intensive and extensive field experience in a middle school. Candidates will be required to spend up to four hours per day, four days per week in their placement. Candidates must have a satisfactory field experience to continue on to student teaching. Proof of liability insurance and criminal background check are required prior to receiving a school placement.

Notes: Proof of professional liability insurance and criminal background check are required prior to receiving a school placement.

EDMG 4407: Classroom Management in the Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350

Corequisite: EDMG 4406 and two of EDMG 4401, EDMG 4402, EDMG 4403, EDMG 4404, and/or EDMG 4408.

The focus of this course is on preparing prospective middle grade teacher candidates to create and

manage positive, productive classroom environments, including those in urban settings. It is understood that these classrooms typically include diverse groups of learners. Management is accomplished through both the development of a comprehensive understanding of the learning and behavior principles that underlie effective classroom management and acquisition of the strategies and skills needed to implement an effective management program.

EDMG 4408: Teaching Reading in the Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 3350 and successful completion of all teaching field courses.

Corequisite: EDMG 4650

This course is a part of a 12-hour block designed to develop appropriate teaching strategies in candidates' two teaching fields. Candidates apply learning theories, teaching techniques, questioning strategies, instructional materials, and assessment procedures for teaching reading to middle grades learners. Candidates will develop and implement plans for teaching in an interdisciplinary team setting.

Notes: Proof of professional liability insurance is required prior to receiving a school placement.

EDMG 4411: Seminar in Middle Grades Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDMG 4650

Corequisite: EDMG 4660

This seminar supports and assesses candidate development in middle grades education during the capstone experience. Candidate reflect on the development of their competencies, skills, and dispositions, and support for teacher performance assessments is provided. Seminar discussions will challenge candidates to examine and integrate current issues, values, and practices in the middle grades.

EDMG 4475: Student Teaching in Middle Grades

0 Class Hours 36 Laboratory Hours 12 Credit Hours

Prerequisite: Admission to Student Teaching.

Full-time teaching experience under the supervision of a public school cooperating teacher and college supervisor in an upper elementary school classroom or in a middle school. Includes regularly scheduled professional seminars. Proof of liability insurance is required prior to school placement.

Notes: Proof of professional liability insurance is required prior to receiving a school placement.

EDMG 4490: Special Topics in Education

1-9 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

EDMG 4498: Classroom Internship

1-12 Credit Hours

Prerequisite: Permission of the director of Center for Education Placements and Partnerships and advisor.

A supervised teaching experience for teachers seeking certification or renewal credit. Proof of professional liability insurance is required prior to receiving a school placement.

Notes: Proof of professional liability insurance is required prior to receiving a school placement.

EDMG 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Corequisite: Two of the following: EDMG 4401, EDMG 4402, EDMG 4403, EDMG 4404 or EDMG 4408 and EDUC 4610

This course is the first semester of an intensive and extensive co-teaching yearlong clinical practice in middle grades education. Under the guidance of a collaborating teacher and university supervisor, candidates practice professional competencies that impact achievement for diverse populations of learners including students with exceptionalities and English learners. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required.

EDMG 4660: Yearlong Clinical Experience II

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Corequisite: EDMG 4411

This course is the second semester of an intensive and extensive coteaching yearlong clinical experience in middle grades education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

Education - Reading

EDRD 3320: Understanding the Reader and the Reading Process

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in EDUC 2110

A study of the socio-psycholinguistic foundations of reading and writing for teachers of adolescents. This course examines language development, reading acquisition, phonemic awareness, word identification, phonics, vocabulary, fluency, comprehension and motivation. It explores historical perspectives of reading, reading research and theory, and introduces students to a wide range of instructional practices and curriculum materials that meet the needs of all adolescent learners.

EDRD 3330: Methods and Materials for Middle Grades Content Area Reading and Writing

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education and EDUC 2130

Corequisite: EDMG 3300

This course prepares candidates to teach diverse works for adolescents from a variety of sources including young adult literature as well as technical, informational, environmental text, and the media. Text selection and electronic database media resources are introduced. A focus on language and cultural diversity is included. Candidates spend at least 15 hours in a middle grades classroom, arranged by the instructor. A current criminal history background check and proof of liability insurance is required.

EDRD 3350: Integrated Reading/Writing Instruction in the Middle Grades

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in EDRD 3320

This course is designed to develop appropriate research-based teaching strategies that will enable candidates teaching or mentoring in a middle grades classroom to effectively integrate reading and writing instruction. Candidates will apply learning theories, teaching techniques, instructional materials, and assessment procedures for middle grades learners that apply to both reading and writing instruction. Students will develop and implement plans for teaching writing through content area reading texts that promote critical thinking and cross-curricular engagement.

EDRD 3360: Introduction to New Literacies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDRD 3320

This course is an introduction to the evolving and multifaceted concept of literacy and its implications for adolescents in both instruction and motivation. Types of literacy to be explored include: media, digital, global, and critical literacies. Emphasis will be placed on understanding universal design in education, considering the impact of technology on literacy, evaluating texts as being current, accurate, and relevant, and developing meaningful plans to incorporate such texts into their classrooms.

EDRD 4409: Young Adult Literature: Cross-Curricular Approaches for Diverse Learners

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in EDUC 2110 and one of the following ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2130, ENGL 2131, ENGL 2132, ENGL 2300

This course provides an understanding for selecting and using diverse young adult literature in middle grades classrooms. It examines reading and writing theories and introduces students to various methodologies for teaching literature. It acquaints students with a reading and writing experience using diverse literary works for adolescents, introduces students to book selection aids and electronic database

media resources for middle grades environments.

EDRD 4410: Reading to Learn in the Content Areas

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

A study of concepts and strategies involved in reading to learn in the content areas. Teacher candidates will study types of text; instructional grouping options; factors related to the reader, text, and context; and strategies to be applied before, during, and after reading. In addition, candidates will explore methods for evaluating textbooks, sources to supplement textbook reading, and ways to use technology within instruction. This course places a heavy emphasis on instruction for strategic reading and writing that meets the individual needs of all adolescent readers. This course is for majors in secondary education only.

EDRD 4411: Reading Diagnostics for Teachers of Adolescents

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDRD 3320 or (EDUC 2110 and ENGL 2271)

A study of the socio-psycholinguistic foundations of reading and writing for teachers of adolescents. This course examines language development, reading acquisition, phonemic awareness, word identification, phonics, vocabulary, fluency, comprehension and motivation. It explores historical perspectives of reading, reading research and theory, and introduces students to a wide range of instructional practices and curriculum materials that meet the needs of all adolescent learners.

EDRD 4420: Teaching Adolescents with Disabilities in Literacy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDRD 3320

This course prepares prospective content teachers to increase the literacy of students with disabilities in inclusive classrooms. Teacher candidates will learn to: (a) recognize various types of reading and writing disabilities; (b) effectively implement Response to Instruction; (c) develop inclusive, multi-level lesson plans embed accommodations and modifications; (d) identify appropriate roles for parents in fostering literacy in students with disabilities; and (e) work collaboratively with special education teachers.

Electrical and Computer Engineering Technology

ECET 1001: Orientation

1 Class Hours 0 Laboratory Hours 1 Credit Hours

This course will provide an introduction to Electrical and Computer Engineering Technology, to include: an introduction to the ECET faculty, an overview of career opportunities, available campus facilities, student organizations, etc. Some of the skills necessary to students will also be introduced. These include: writing formal lab reports and learning basic computer skills.

ECET 1012: Design Fundamentals

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Concurrent: ECET 1001 and (Math 1112 or Math 1113)

Corequisite: ECET 1012L

This course will introduce students to engineering technology design principles by having them participate in team-based design projects. Major goals of the course include learning how to work in teams and learning how to approach a complex design problem from many different perspectives. Fundamental engineering technology skills will also be taught which include critical thinking, debugging methodologies, and circuit construction techniques.

ECET 1012L: Design Fundamentals Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: ECET 1001, ECET 1012, and (Math 1112 or Math 1113)

In this course students will apply engineering technology design principles to assigned team-based design projects. In addition, students will learn about basic electrical instrumentation, basic circuit construction techniques, circuit debugging methodologies, data collection, and the application of analytical and simulation tools to engineering design problems will be emphasized. Teamwork, as well as written and oral communications, will be emphasized through reports and presentations.

ECET 1101: Circuits I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 1012, and ENGL 1101

Concurrent: MATH 1190

Corequisite: ECET 1101L

This course introduces electrical quantities, element configurations, and circuit analysis tools. DC circuit analysis is emphasized, including circuits containing dependent sources and techniques such as mesh analysis, nodal analysis, superposition, and Thevenin equivalence. Reactive elements are examined, as are the transient responses of circuits that contain a single reactive element. Sinusoidal AC circuit analysis is introduced through the application of basic circuit laws to series and parallel configurations.

ECET 1101L: Circuits I Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 1012 and ENGL 1101

Concurrent: ECET 1101 and MATH 1190

This course provides laboratory experiences to complement ECET 1101 Circuits I. Basic prototyping and testing skills are developed, and lecture concepts are reinforced. Circuits are constructed on solderless breadboards using standard electrical components, and measurements are completed using general-purpose instrumentation.

ECET 1200: Digital I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Concurrent: ECET 1101

Corequisite: ECET 1200L

This course is a study of digital circuit fundamentals with an emphasis on combinational and sequential logic design, logic simplification and implementation using standard digital integrated circuits and programmable logic devices. Topics also include binary number systems, binary arithmetic, logic families, design techniques, logic simulation, flip-flops, counters, registers, memory technologies, and VHDL programming.

ECET 1200L: Digital I Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: ECET 1200

The laboratory component of ECET 1200 is designed to provide the student with hands-on experience in the fundamental concepts and techniques of discrete logic design and implementation using Boolean logic. The concepts are extended into programmable logic design (PLD) using a VHDL programming language. Lab exercises are based on modern digital design principles and practices.

ECET 2111: Circuits II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 1101 and ECET 1101L

Concurrent: MATH 2202 and ((PHYS 2211 and PHYS 2211L) or (PHYS 1111 and PHYS 1111L))

This course primarily extends the circuit analysis techniques learned in ECET 1101 to circuits containing all three types of passive circuit elements and sinusoidal sources. Several adjunct topics are then presented including analysis of complex networks, dependent sources, transformers, 3-phase circuit analysis, resonance, filters and Bode plots. Laboratory exercises reinforce theoretical concepts presented in the class and provide various opportunities to become proficient in working with standard instrumentation in electrical engineering technology.

ECET 2111L: Circuits II Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 1101 and ECET 1101L

Concurrent: **ECET 2111**

This laboratory course reinforces theoretical concepts presented in ECET 2111, expanding on circuit analysis techniques learned in ECET 1101 to circuits containing all three types of passive circuit elements and sinusoidal sources. Students document experimental lab results in reports evaluated based on completion, format, and data accuracy. Lab sessions offer students the opportunity to become proficient in working with standard instrumentation in electrical engineering technology.

ECET 2210: Digital II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 1200 and ECET 2300

Corequisite: **ECET 2210L**

This course is a study of industry-dominate microcontroller architecture and assembly programming language. Principles covered include: the study of an industry standard micro-controller, assembly language programming, logic family characteristics, system interfacing and system timing issues.

ECET 2210L: Digital II Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 1200 and ECET 1200L

Concurrent: ECET 2210

The laboratory component of ECET 2210 is designed to provide the student with hands-on experience in the fundamental concepts and techniques of microcontroller system design. The concepts are extended into assembly programming language. Lab exercises are based on modern microcontroller embedded design principles and practices.

ECET 2300: Electronics I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190

Concurrent: ECET 2111, and (PHYS 2211 or PHYS 1111)

Corequisite: ECET 2300L

This course is a study of the characteristics, analysis, and practical applications of diodes, bipolar-junction transistors (BJTs), and field-effect transistors (FETs). Semiconductor theory, biasing, and small-signal models of BJTs and FETs are included. An introduction to the ideal op amp and basic circuits using it is included.

ECET 2300L: Electronics I Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: MATH 1190

Concurrent: ECET 2111, ECET 2300, and (PHYS 1111 or PHYS 2211)

This course provides laboratory experiences to complement ECET 2300 Electronics I. Standard devices such as op-amps, diodes, bipolar-junction transistors, and field-effect transistors are employed to construct circuits used to: examine device/circuit behavior, become familiar with associated measurements, and reinforce lecture concepts.

ECET 2310: Electronics II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2111, and ECET 2300

Corequisite: ECET 2310L

This course is a study of bipolar junction transistor (BJT) and field effect transistor (FET) amplifiers including: amplifier frequency response, multistage amps, differential amps, feedback principles, and heat sink principles. The characteristics, performance and, practical applications of modern linear integrated circuits including: operational amplifiers, comparators, multipliers, logarithmic amplifiers, and oscillators are also covered.

ECET 2310L: Electronics II Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2111, ECET 2300, and ECET 2300L

Concurrent: ECET 2310

Students simulate, build, and test single- and multi-stage transistor amplifier circuits and operational amplifier circuits. Applications include determining amplifier and filter gain and frequency response, measuring differential amplifier performance, investigating feedback principles, and implementing oscillator circuits.

ECET 3000: Electrical Principles

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 PHYS 1112L)

Covers basic circuit theory including the ac and dc characteristics of resistors, capacitors and inductors as used in elementary single and three-phase circuits. Characteristics of basic industrial electric motors and single and three-phase connections are studied. Basic factory automation is covered including sensors, relay

control and programmable logic controllers. Laboratory exercises supplement the material discussed in class. This course cannot be used for credit by CpET or EET majors.

ECET 3020: Biomedical Instrumentation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Concurrent: ECET 2310

Corequisite: ECET 3020L

An introduction to biomedical instrumentation principles, design, measurement and analysis techniques. This course provides an overview of typical biomedical instruments used in the field. Topics include the acquisition and analysis of biomedical signals, a study of medical diagnostic instruments and equipment; monitors, intensive care units, coronary care units, operating room equipment, telemetry systems, ECG machines, life support equipment, respiratory instrumentation, brain monitors, medical ultrasound, electro-surgery units, and hemodialysis machines.

ECET 3020L: Biomedical Instrumentation Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: ECET 2310 and ECET 3020

In this course students will apply engineering design principles to assigned team-based design projects. Topics include the acquisition and analysis of biomedical signals, biomedical instrumentation circuit design, circuit construction, biomedical data acquisition and measurements, biomedical data analysis, and debugging of biomedical instrumentation circuits. The application of analytical and simulation tools in the study of biomedical diagnostic instruments and equipment will be emphasized.

ECET 3220: Digital III

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 2210 and ECET 2310

The student will design a single board computer (SBC) incorporating standard components such as RAM, ROM, address decode, and input/output devices such as keyboards and LCD displays. A complete software monitor system will be developed for the SBC utilizing industry standard development tools. One of the major objectives of this class is to provide an environment within which the student can experience a complete industry-like project development cycle. This cycle will include the design, development, construction and test of the project. Advance I/O topics will also be covered including ADC and DAC operation and interfacing.

ECET 3398: Internship

1 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: Department Chair Approval

This course is a structured experience that is related to Electrical and Computer Engineering Technology, in a supervised setting with an industry partner. The goal is for students to enhance their academic classroom skills with practical experiences in a real-world environment. Supervision of the Intern is shared by the working environment supervisor and a faculty advisor.

ECET 3400: Data Communications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310, and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Corequisite: ECET 3400L

This course is a survey of data communication topics. The OSI and TCP/IP protocol models are covered, with emphasis placed on protocols associated with the lower layers. Concepts include synchronous and asynchronous transmission, line codes, signaling, effects of bandwidth and noise, and digital and analog modulation. Error detection and correction are also covered. Other areas studied include analog-to-digital conversion, multiplexing, circuit and packet switching, and network topologies.

ECET 3400L: Data Communications Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310, and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Concurrent: ECET 3400

Students simulate and measure the bandwidth properties of signals and the effect of noise on signal quality. Eye patterns and signal constellations are created and measured. Synchronous transmission techniques are examined.

ECET 3410: High Frequency Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112)

Corequisite: ECET 3410L

This course is a study of electronic signal transmission systems. It includes an analysis of transmission lines with a concentration on their fundamental principles, specifications, operation and practical applications. The course also includes the study of the fundamental principles of waveguides, and wireless and fiber-optic communications. ECET 3410L: High Frequency Systems Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Concurrent: ECET 3410

Students measure the performance of electromagnetic transmission system elements including transmission lines, waveguides, and components. Matching networks are designed with Smith charts, simulated, and analyzed.

ECET 3500: Survey of Electric Machines

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2111 and ECET 2111L

Corequisite: ECET 3500L

This course is a survey of electric machine topics, focusing on the characteristics and applications of basic electric machinery. It introduces classical electromagnetism and magnetic circuits as the basis for electromechanical energy conversion and machine operation. Single-phase and three-phase transformers are covered, along with three-phase and single-phase induction machines, DC machines, and synchronous machines, with emphasis placed on their operational characteristics and modeling.

ECET 3500L: Survey of Electric Machines Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2111 and ECET 2111L

Concurrent: ECET 3500

This lab course supports the ECET 3500 Survey of Electric Machines course. Students will set-up, operate, measure the operational characteristics, and evaluate the performance of a variety of machines including transformers, induction machines, DC machines, and synchronous machines.

ECET 3600: Test Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2210 and ECET 2310

Corequisite: ECET 3600L

This course is an introduction to test engineering principles with an emphasis on computer-controlled instrumentation and acquisition using a communication interface. Application software will be written in LabVIEW to automatically test devices using GPIB/VISA test equipment. BIST, MTBF, Boundary scan testing, instrumentation, instrumentation automation, ISO 9000, TQM, usability, and other related test engineering topics will also be covered.

ECET 3600L: Test Engineering Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2210 and ECET 2310

Concurrent: ECET 3600

This course involves extensive use of LabVIEW for simulation and interfacing to test instruments in the lab. Students learn how to program in LabVIEW and they design an automated test and measurement system.

ECET 3620: Signals and Systems Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310, ECET 2310L, and MATH 2306

Corequisite: ECET 3620L

This course presents the analysis of continuous- and discrete-time signals occurring in circuits and systems containing linear and nonlinear elements. Methods include graphical techniques, Laplace transform, Fourier analysis, convolution, and difference equations. Topics regarding communication systems, Bode plots for transfer functions, classical filter responses, and practical second-order filter designs are also presented. An introduction to discrete-time systems including sampling theory is provided covered.

ECET 3620L: Signals and Systems Analysis Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310, ECET 2310L and MATH 2306

Concurrent: ECET 3620

This lab develops the analysis of continuous- and discrete-time signals occurring in circuits and systems containing linear and nonlinear elements. Methods include graphical techniques, Laplace transform, Fourier analysis, convolution, and difference equations. Topics regarding communication systems, Bode plots for transfer functions, classical filter responses, and practical second-order filter designs are also presented. An introduction to discrete-time systems and sampling theory is included. MATLAB is used in conjunction with all laboratory exercises.

ECET 3640: Introduction to Systems Engineering and Robotics

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 2310

This course will introduce students to the general principles of Systems Engineering through the development of an actual robotic systems. When completed, each student will understand the basic elements of system engineering design including requirements analysis, functional decomposition, subsystem decomposition, risk analysis, physical and logical interface specification, physical modeling, simulation, and life cycle planning.

ECET 370I: Embedded Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310 and (ECET 3710 or ECET 3810)

Corequisite: ECET 370IL

Introduction to the programming and interfacing of embedded systems. Programming will introduce a high-level object-oriented language and explore concepts such as multithreading and industry standard resource management/sharing mechanisms. Programming will focus on low-level hardware interfacing via standard GPIO and a variety of serial communication protocols. The class will also explore the use and application of statistical analysis.

ECET 370IL: Embedded Systems Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310 and (ECET 3710 or ECET 3810) Concurrent: ECET 370I

This laboratory course supplements ECET 370I. The initial part consists of a series of weekly labs designed to familiarize students with the target hardware and programming language used in the course. Later labs increase in complexity and target embedded concepts such as timers and multi-threading. The end of the term culminates in a group project where teams develop a complex embedded system.

ECET 3710: Hardware Programming and Interfacing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 1200 and ECET 2300

Corequisite: ECET 3710L

This course will teach students the fundamental concepts of hardware programming and interfacing using abstract programming language(s) and several interfacing technologies commonly used in microcontroller design. In addition to learning basic design and interfacing techniques, other skills such as writing pseudo code, developing C/C#-based applications, and applying statistical analysis will be explored.

ECET 3710L: Hardware Programming and Interfacing Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 1200 and ECET 2300

Concurrent: ECET 3710

The laboratory component of ECET 3710 is designed to provide the student with hands-on experience in the fundamental concepts of hardware programming and interfacing using abstract programming language(s) and several interfacing technologies commonly used in microcontroller design. Lab exercises are oriented around a popular microcontroller and associated peripheral devices.

ECET 3810: Applications of C++, JAVA and HTML

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 1012

Corequisite: ECET 3810L

A study in the applications of several key programming environments. This course covers such topics as: data types, structures, functions, arrays, file input/output, system calls, data portability, security and Internet related topics as they pertain to the appropriate programming language.

ECET 3810L: Applications of C++, Java, and HTML Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 1012

Concurrent: ECET 3810

The laboratory component of ECET 3810 is designed to provide the student with hands-on experience in the fundamental concepts and techniques of object-oriented programming (OOP) using abstract programming language(s). Lab exercises are based on modern programming principles and practices.

ECET 4020: Biomedical Imaging

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L) Concurrent: ECET 2310, and ECET 2310L

Corequisite: ECET 4020L

An introduction to the principles of the major imaging equipment including x-ray radiology, x-ray computed tomography (CT), ultrasonography and magnetic resonance imaging (MRI). Includes a discussion of other emerging imaging technologies such as nuclear imaging (PET and SPECT).

ECET 4020L: Biomedical Imaging Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Concurrent: ECET 2310, ECET 2310L, ECET 4020

This course provides laboratory exercises to reinforce theoretical concepts presented in the ECET 4020 lecture. The course expands on the application of image processing techniques to the processing and analysis of acquired biomedical images from various types of major imaging equipment such as x-ray radiology, x-ray computed tomography (CT), ultrasonography and magnetic resonance imaging (MRI).

ECET 4040: Biometrics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2332

Concurrent: ECET 2310, and ECET 2310L

Corequisite: ECET 4040L

An introduction to biometric recognition systems, which utilize the physiological and/or behavioral characteristics of an individual for identification. Students study the design of various biometric systems based on fingerprints, face, iris, voice, hand geometry, palmprint, retina, and other modalities. The performance of biometric systems and security-related issues of these systems are discussed. Multimodal biometric systems using two or more of the above human characteristics are also discussed.

ECET 4040L: Biometrics Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: MATH 2332

Concurrent: ECET 2310, ECET 2310L, and ECET 4040

This course provides laboratory exercises to reinforce theoretical concepts presented in the ECET 4040 lecture. The course expands on the application of biometric recognition systems, which utilize the physiological and/or behavioral characteristics of an individual for identification. Students will design and analyze various biometric systems based on fingerprints, face, iris, voice, hand geometry, palmprint, retina, and other modalities.

ECET 4320: Active Filters

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310, and ECET 2310L

Corequisite: ECET 4320L

This course is a study of the characteristics, analysis, and practical topologies of active filters. The state-variable Sallen-Key topologies are emphasized. Popular filter responses including Butterworth, Chebyshev, Bessel, and Cauer (elliptic) are studied. Delay sensitivity, frequency scaling, impedance scaling, determination of pole-zero locations, and transfer function transformations are studied. Filter synthesis techniques are presented. An introduction to switched-capacitor and digital filters is also included.

ECET 4320L: Active Filters Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310 and ECET 2310L

Concurrent: ECET 4320

This course reinforces theoretical concepts presented in the ECET 4320 lecture. Students will design, simulate, construct, and analyze various second-, third, and fourth-order active filter systems. The state-variable Sallen-Key topologies are emphasized. Popular filter responses including Butterworth, Chebyshev, Bessel, and Cauer (elliptic) are studied. Delay sensitivity, frequency scaling, impedance scaling, determination of pole-zero locations, and transfer function transformations are examined.

ECET 4330: Audio Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2210, ECET 2210L, ECET 2310 and ECET 2310L

Corequisite: ECET 4330L

The fundamentals of specifications, standards, devices, circuits and systems used in audio are studied. Acoustics, power amplifiers, pre-amplifiers, frequency contouring circuits, signal processors, microphones, loudspeakers and sound reinforcement systems are covered.

ECET 4330L: Audio Technology Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2210, ECET 2210L, ECET 2310, and ECET 2310L

Concurrent: ECET 4330

This course reinforces theoretical concepts presented in the ECET 4330 lectures. Topics include the standards, characteristics, design, analysis, and practical implementation of devices, circuits and systems used in audio. Acoustics, power amplifiers, pre-amplifiers, frequency contouring circuits, signal processors, microphones, loudspeakers and sound reinforcement systems are covered. The application of computer based simulation software and computer-aided testing to lab exercises and an audio project are emphasized.

ECET 4420: Communications Circuit Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Corequisite: ECET 4420L

This course examines radio frequency communications circuits and their applications. Receiver and transmitter circuits such as amplifiers, oscillators, modulators and demodulators are studied. Spectral analysis is introduced and the effects of noise in communications systems is investigated.

ECET 4420L: Communications Circuit Applications Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310, either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Concurrent: ECET 4420

Students simulate, build, and test circuits used in communications systems. These include amplifiers, oscillators, mixers, filters, and matching networks.

ECET 443 I: Wireless Communications Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 3410

Corequisite: ECET 4431L

This course integrates topics involving antennas, electromagnetic propagation, and digital communications to investigate point-to-point radio frequency communication systems. Topics include: radiation patterns, directivity, polarization, antenna types, path-loss models, knife-edge diffraction, link-budget analysis, superheterodyne receivers, digital modulation/demodulation, system performance enhancements, multiple-access techniques, and duplexing techniques. Applications to terrestrial, satellite, and cellular communications are included.

ECET 443 1L: Wireless Communications Systems Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 3410

Concurrent: ECET 443 I

This course provides laboratory experiences to complement ECET 443 I Wireless Communications Systems. Most of its activities center around a design-build-test-report antenna project, but other exercises will also be completed, including at least one employing antenna simulation.

ECET 4490: Special Topics

1-3 Class Hours 0-3 Laboratory Hours 1-4 Credit Hours

Prerequisite: Department Chair approval

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.

ECET 4510: Power System Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2111, and ECET 2111L

Corequisite: ECET 4510L

This course involves the analysis of power systems starting with the calculation of line resistance, line inductance, and line capacitance of power transmission lines. These parameters are used to model power systems in order to derive the bus impedance matrix, perform network calculations and analyze systems for symmetrical and unsymmetrical faults.

ECET 4510L: Power System Analysis Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2111 and ECET 2111L

Concurrent: ECET 4510

In this course, the transmission line parameters are used to model power systems in order to simulate power system's operating characteristics and analyze the systems for symmetrical and unsymmetrical faults. The main activity consists of problem solving and involves the solution of network problems using computer simulation and analysis software.

ECET 4515: Power Distribution Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 3500

Corequisite: ECET 4515L

A detailed study of the segment of the electric power system between bulk power sources and customer service drops, including subtransmission circuits, distribution substations, primary feeders, distribution transformers, and secondary circuits. Methods of analysis and design are applied to topics such as load characteristics, voltage drop, power loss, capacitor applications, voltage regulation, and system protection.

ECET 4515L: Power Distribution Systems Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 3500

Concurrent: ECET 4515

This course uses power system simulation software as an environment for laboratory exercises that

complement ECET 4515 Power Distribution Systems. Models are developed for various system configurations and used to examine, evaluate, or enhance system performance.

ECET 4520: Industrial Distribution Systems, Illumination, and the NEC

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 3500 and (ECET 2110 or ECET 2111)

This introductory design course involves the lighting, wiring and electrical protection systems in commercial and industrial buildings. This course will cover: lighting fundamentals, light sources, lighting system layouts for interior spaces, protection of electrical systems, fuses, circuit breakers, instrument transformers and protective relays, grounding and ground-fault protection, feeder design and branch circuits for lighting and motors. This course will include projects - designing lighting and wiring systems for commercial/industrial buildings.

ECET 4530: Industrial Motor Control

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 2111 and ECET 3500

This introductory design course is a study of manual and automatic, starters and controllers of ac and dc motors. The course will concentrate on three-phase induction motor starters and controllers with some study of dc motor starters and controllers. The induction motor coverage will include both full-voltage and reduced voltage techniques, with the emphasis on the reduced voltage methods. Line impedance, auto-transformer, wye-delta and part-winding starters will be included. The laboratory will consist of several projects in designing, testing and demonstrating various motor starters and controllers. The designs will require using Programmable Logic Controllers in the projects. The course will conclude with variable frequency drives.

ECET 4540: Introduction to Power Electronics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310 and ECET 3500

Corequisite: ECET 4540L

This course introduces the devices, circuits, and systems utilized in power electronics. An overview of power semiconductors: switching diodes, thyristors, gate turn-off thyristors, insulated gate transistors, MOS-controlled thyristors, and other controllable switches. Power electronic circuits such as uncontrolled and phase controlled dc converters, DC to DC switch mode converters, DC to AC switch mode inverters, and their application in motor drive, speed control, and power supplies are included.

ECET 4540L: Introduction to Power Electronics Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310 and ECET 3500

Concurrent: ECET 4540

This laboratory course reinforces concepts from ECET 4540 lectures, which extend concepts of electronic components and circuits from ECET 2300 and ECET 2310. Students document experimental

results in formal reports, which are evaluated based on completion, format, and data accuracy. Students become proficient in working with DC to DC switch mode converters, DC to AC switch mode inverters, and their application in motor drive, speed control, and power supplies.

ECET 4560: Electric Drives

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 3500 and ECET 4610

This course covers basic AC/DC electric-machine drives for speed/position control. It presents an integrated discussion of electric machines, power electronics, and control systems. Computer simulations are used for understanding power-electronics based converters and the design of feedback controllers. Applications of electric drives can be found in electric transportation, robotics, process control, and energy conservation.

ECET 4610: Control Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2310, ECET 2310L, and MATH 2306

Corequisite: ECET 4610L

This course is a study of feedback control systems theory including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.

ECET 4610L: Control Systems Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 2310, ECET 2310L, and MATH 2306

Concurrent: ECET 4610

This lab course complements the ECET 4610 lectures. Students investigate feedback control systems including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of MATLAB in the analysis and design of control systems is emphasized. MATLAB is used in conjunction with all the laboratories.

ECET 4630: Digital Signal Processing

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 2310, ECET 3220, and MATH 2306

An introduction to the concept of discrete and digital signals and systems. Difference equations, Discrete Fourier Transforms (DFTs), Fast Fourier Transforms (FFTs), Z-Transform techniques, IIR filter design, and FIR filter design are covered. An introduction to the architecture, assembly language and application examples of general and special purpose microprocessors such as the TMS 320 and DSP56000 families is included.

ECET 4720: Distributed Microcontrollers and PCs

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 3220

A study of networked PIC microcontrollers connected to a host PC or several networked PCs. Two popular versions of various microcontroller architectures will be discussed. Software will emphasize both assembly language programming and ANSI C programming. Hardware will emphasize the bus interconnections between the devices such as RS232/RS485, I2C, CAN, SPI, etc. Example Real Time Operating Systems (RTOS) for microcontrollers is introduced as well. Development of a capstone project, through the design of a printed circuit board is also included.

ECET 4730: VHDL and Field Programmable Gate Arrays

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: (ECET 2111 or ECET 2110) and ECET 2210

Provide a thorough introduction to the Virtual Hardware Description Language (VHDL) and apply this knowledge to Field Programmable Gate Arrays (FPGA's). Current applications will be presented and students will design, develop, test and document complete FPGA based designs. The use of schematic capture tools for configuring FPGA's will also be covered.

ECET 4820: Communications Networks and the Internet

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 3400

Corequisite: ECET 4820L

This course covers the fundamental concepts, operational characteristics, and design principles of digital networks. The course focuses on local-area and wide-area network topologies and protocols that are used in the Internet. Topics include: TCP/ IP protocol, Internet standards, routing and switching devices, Internet organization, Ethernet and virtual LANS, MPLS, and an overview of aspects of computer network operating systems related to networking.

ECET 4820L: Communications Networks and the Internet Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 3400

Concurrent: ECET 4820

This laboratory course will teach students how to design, configure and implement computer network systems based on modern communication devices such as routers, switches, and bridges. Students will work with the protocols and devices used in local area networks and the Internet and will capture and analyze data traffic in order to analyze communications protocol functions.

ECET 4840: Advanced Telecommunications

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 2210, ECET 4820, and ECET 3810

A study investigating several advanced telecommunications technologies and techniques. Course covers such topics as: data transmission principles, time and frequency domain concepts, Fourier signal analysis, transmission impairments (delay distortion, noise), channel capacity, sampling and quantization, routing and switching theory, routing algorithms and protocols, high-speed networking technologies, queuing theory, congestion control mechanisms, mobile and residential broadband systems, wireless technologies, network security techniques and implementation, and emerging technologies (IPv6, 3G and 4G networks).

ECET 4860: Network Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 3400, and ECET 3400L

Corequisite: ECET 4860L

This class teaches the fundamental concepts of network security including symmetric and asymmetric encryption techniques, key distribution systems, authentication mechanisms, IP security, web security, email security, intruders, and malicious software.

ECET 4860L: Network Security Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ECET 3400 and ECET 3400L

Concurrent: ECET 4860

This lab course complements the ECET 4860 lectures. Students investigate the fundamental concepts of network security including symmetric and asymmetric encryption techniques, key distribution systems, authentication mechanisms, IP security, web security, email security, intruders, and malicious software.

ECET 4900: Senior Capstone Design Project

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: Senior standing, Instructor approval, Department Chair approval

This course provides comprehensive design experience for students working in small groups. The course is a culmination of the undergraduate Electrical and Computer Engineering Technology education. Topics covered include: design specifications, evaluation of design alternatives, technical reports and oral presentations. Also covered are topics such as intellectual property, industry standards and conventions, engineering economics, reliability, safety, engineering ethics and current topics in the field of electrical and computer engineering technology.

Electrical Engineering

EE 1000: Foundations of Electrical Engineering

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Electrical Engineering Major

This course provides an introduction to Electrical Engineering and to SPSU including an introduction to the EE faculty, an overview of career opportunities, available campus facilities, student organizations, etc. Some of the skills necessary to EE students will also be introduced. These include: writing formal lab reports, preparing a speech, drafting a winning resume, learning basic computer skills, and a research project.

EE 2290: Special Topics

1-6 Credit Hours

Special Topics course for Electrical Engineering majors.

EE 2301: Circuit Analysis I

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: PHYS 221 I and PHYS 221 IL

This course introduces basic circuit analysis including resistive circuits, voltage and current sources, analysis methods, network theorems, energy storage elements, and AC steady-state analysis. Techniques for analyzing resistive networks are heavily emphasized. In addition, the physical mechanisms of capacitance and inductance are examined along with analysis of transient responses in circuits containing resistors, capacitors, and inductors. Laboratory exercises reinforce the theoretical concepts presented in class and provide various opportunities to become proficient with standard instrumentation used in electrical engineering.

EE 2302: Circuit Analysis II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 2301, MATH 2306 and PHYS 2212

A continuation of basic Circuit Analysis I which focuses on RC, RL, and RLC circuits, mutual inductance, series and parallel resonance, two-port networks frequency response, AC power including power factor correction, as well as three phase circuits. Simulation is heavily emphasized using state of the art software such as PSPICE.

EE 2401: Semiconductor Devices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 121 I, CHEM 121 IL and EE 1000

This course effectively applies the knowledge of chemistry and physics to understand the operating principles of various semiconductor devices. The course covers topics starting from the fundamental concepts of atomic and crystal structure, crystal growth, impurity doping and energy bands to the in-depth device operation and quantitative analysis of p-n junction diode, metal-semiconductor contacts and Schottky diode, BJTs and MOSFETs. Also fundamental operating principles of optoelectronic devices

such as, LEDs and photodiodes are discussed. Simple device simulation components reinforces the understanding of various critical aspects of device operation. The course concludes with an experiment-based project on device characterization where students perform analysis on the experimentally acquired data to extract various important device parameters.

EE 250I: Digital Logic Design

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: EE 230I

This course is a study of digital circuit fundamentals with an emphasis on combinational and sequential logic design, Boolean algebra and switching theory, logic simplification and implementation using standard digital IC's of various logic families and programmable logic devices. A significant emphasis is placed on the study of digital design principles with emphasis on the use of LSI, MSI, and SSI circuits in the application and design of complex digital systems with a detailed examination of CMOS and TTL at the transistor level. Laboratory exercises reinforce theoretical concepts presented in the lecture utilizing an industry standard micro controller.

EE 340I: Engineering Electronics

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: EE 230I

This course emphasizes internal operation, terminal characteristics, and models of diodes, op-amps, transistors (bipolar & field-effect), and optical devices (LED's & phototransistors). In addition, areas of nanotechnology such as carbon nanotubes and grapheme are explored. A lab component in the course focuses on applying the skills attained in this course to emerging technologies such as robotics, biomedical, motors, etc.

EE 3405: Electronic Materials

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 240I or may be taken concurrently

This course focuses on the study of important properties of materials (such as electronic properties, thermal properties, magnetic properties, dielectric properties, optical properties, crystallographic and electronic defects) which play important role in the device operation and are engineered for various electrical engineering applications. The course covers topics starting from the elementary materials science concepts and fundamental quantum mechanics to modern device applications including superconductors, supercapacitors, piezoelectricity, magnetic and optical data storage technologies, communication via optical fiber etc. Also, the course includes various measurement techniques to probe electronic, crystallographic, and structural properties of materials including resistivity and Hall effect measurements, X-ray diffraction, electron microscopy, and atomic force microscopy. Device design and fabrication aspects are discussed in correlation with the material properties. The core knowledge obtained in this course are applicable to a wide range of areas within electrical engineering discipline, such as Photonics, Semiconductors & Microelectronics, Nano-scale electronics, Electric Machine Design & Electromagnetics etc.

EE 350I: Embedded Systems

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: EE 250I and Engineering Standing

An introduction to microcontrollers and integrated microprocessor systems. Emphasis is placed on the Intel 8051 and Motorola 68HC11 families and derivatives. Hardware/software trade-offs, system economics and functional configurations are examined along with serial and parallel communications, watchdog timers, low power operation, and assembly language programming techniques. The architecture of design of sampled data systems is explored using case studies of representative applications.

EE 360I: Electric Machines

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: EE 230I and Engineering Standing

The study of the fundamentals of electro-mechanical energy conversion, magnetic circuits and electromagnetic devices, theory of operation and operating characteristics of transformers, DC machines, AC induction and synchronous machines and stepper motors.

EE 3602: Electric Power Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 2302, and Engineering Standing

This course introduces students to topics such as: AC power systems, power system networks, power flow analysis; short-circuit analysis, transient stability analysis, and computer simulation of power systems. Moreover, field trip(s) will be made to centers operated by utilities and/or power-related companies.

EE 3603: Electronic Power Conversion

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Engineering Standing and EE 2302

This course introduces students to the following: Power electronic devices; Power electronic circuits; Applications; Modeling, analysis and simulation using various software. Students will also perform experiments on various power converters to learn practical skills, and relate theory to real-world practice.

EE 3605: Electromagnetics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHYS 2212, PHYS 2212L and MATH 2203 and Engineering Standing

An advanced treatment of static electric and magnetic fields and their sources, Poisson and Laplace equations and boundary value problems, time-varying electromagnetic fields and Maxwell's equations. Plane wave propagation in free space and in materials is examined.

EE 370I: Signals and Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 2302 and Engineering Standing

This course explores discrete and continuous-time systems analysis, with emphasis on linear time-invariant (LTI) systems, the classification of continuous-time systems, convolution and its application to LTI systems and analysis of LTI systems via the Laplace transform, Fourier transform, and Fourier series.

EE 3702: Communication Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 370I and Engineering Standing

Amplitude modulation, frequency and phase modulation and demodulation techniques are examined. Bandwidth and power considerations, noise in communication systems, signal analysis and transmission are included as are noise and probability aspects of communication systems and practical communication systems.

EE 3706: Computer Networking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 250I and Engineering Standing

The main goal of this course is to introduce students to the fundamentals of computer network architecture and network protocols. Topic includes OSI Model, TCP/IP, routing protocols, link layer techniques and network security. Students will read related research papers and work on their group projects, which will solidify the foundation of their knowledge through the real-world implementation of their new ideas in network simulators or test-beds.

EE 420I: Control Systems

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Engineering Standing, and EE 230I with a Minimum Grade of "C", and MATH 2306 with a Minimum Grade of "C"

The focus of this course is a study of feedback control systems theory including practical applications of compensation and P,PI, and PID concepts. Control system modeling, transient and steady state characteristics and response, stability and frequency response are analyzed; Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.

EE 4400: Directed Study in Electrical Engineering

Variable 1 to 4 credit hours Credit Hours

Prerequisite: Approval of instructor and department chair

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences. Repeatable two times for credit.

EE 4405: Fundamentals of Solar Power and Renewable Energy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 2301

Corequisite: EE 2401

This course reviews various renewable energy systems to meet the increasing global energy demand of the 21st century in a sustainable manner. Different renewable energy technologies including Solar, Wind, Hydroelectric, Ocean Waves, Tidal, Geothermal, and Biomass energy are discussed. Students will learn the fundamental and quantitative principles of these renewable technologies. The course puts a major emphasis on the various Solar Photovoltaic (PV) technologies to harvest solar energy by direct conversion into electrical energy. The course covers from the fundamental principles of solar cells to in-depth discussions on 1st generation Si cells, 2nd generation thin-film cells, and emerging 3rd generation high-efficiency PV technologies. The course concludes with a real-world project where students effectively apply their knowledge to perform current-voltage measurements on solar cells, extract important electrical parameters of the device, and design a stand-alone photovoltaic system.

EE 4490: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Special topics course for Electrical Engineering majors.

EE 4603: Electric Drives

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: EE 2302, and Engineering Standing

Concurrent: EE 3601

Corequisite: None

This course enables the student to analyze and design basic AC and DC electric motor drives used for speed/position/torque control, based on the proper integration of electric machines, power electronics, and control systems.

EE 4605: Electromagnetic and Microwave Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 3605 and Engineering Standing

In this course students will develop an understanding of the fundamental concepts of propagation, waveguides and radiation of electromagnetic waves. Students will apply basic electromagnetic concepts to the design of transmission lines, antenna systems, radars, and satellite communication.

EE 4701: Professional Practice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EE 3401 and Engineering Standing

This course covers the historical, social and economic considerations of the electrical engineering discipline. It includes studies of professional conduct, risks, and liabilities, and intellectual property

relative to the electrical engineering profession. Electrical Engineering case studies will be use. Further the study of professional ethics, electrical code fundamentals (i.e. NEC), laws governing the practice of electrical engineering, contractual relationships, the licensure process for professional engineers are all undertaken in this course.

EE 4800: Senior Project

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: Any 4000-level Electrical Engineering course and Engineering Standing.

This course is designed to be the culmination of the undergraduate electrical engineering education. Under the guidance of the professor, students will form small design teams, choose a proposed or ongoing project and research and redesign the project. Working as independent teams with guidance from the lead professor the capstone projects will be completed and the results presented for review to a panel of faculty, students, and others such as staff and Industrial Advisory board members.

Engineering

ENGR 1100: Survey of Engineering Applications from Mathematics

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 1112 or MATH 1113

The objective of this course is to increase student retention, motivation, and success in engineering through an application-oriented introduction to engineering mathematics. This course does not replace other math courses, but provides a survey of the most significant math topics used in the core freshman and sophomore-level engineering courses. These include basic descriptions of engineering applications using algebraic manipulation of engineering equations, trigonometry, vectors and complex numbers, systems of equations and matrices, differentiation, integration and differential equations. All these fundamental math topics will be presented within the context of engineering applications, and reinforced through examples of their use in the core engineering courses.

ENGR 2214: Engineering Mechanics - Statics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHYS 2211, and PHYS 2211L

This course studies the force vectors, equilibrium of particles, equilibrium of rigid bodies in two and three dimensions; trusses, friction, centroids and moments of inertia.

ENGR 2500: Solid Mechanics & Materials

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: See advisor for prerequisite.

This course is made of two distinct parts. The first part of the course is a study of stress and strain of deformable bodies in tension, compression, bending, and torsion. Topics covered include: axial stress and strain; thermal stress and strain; statically indeterminate systems; torsional stress and strain; bending stresses in beams; beam deflections; combined stresses; and finite element analysis methods. The second part of the course is a study of metals and alloys, ceramics, polymers, and composites as

related to design. Areas include corrosion, atomic structure, mechanical properties, fatigue, and the effects of alloying, hot- and cold-working and heat treating. The lab work includes tensile testing, heat treating, impact testing, hardness testing, and corrosion.

ENGR 2710: Engineering Calculations

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 2202

This course will focus on the fundamentals of linear algebra as applied to electrical, mechanical, and mechatronic engineering applications. Students will be introduced to the fundamentals of state-space theory of linear systems, and to apply the theory to the modeling, analysis, and design of real-world systems. The student should be able to complete calculations by hand for small problems, or by using Matlab for larger problems.

ENGR 3122: Engineering Mechanics - Dynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214 and MATH 2202

A study of the mechanics of particles and rigid bodies. Topics covered include: kinematics and kinetics of particles; work and kinetic energy; impulse and momentum; rigid body motions; relative motion; and moving coordinate systems.

ENGR 3125: Machine Dynamics & Vibrations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CSE 1311 or ME 1311), ENGR 3122 and Engineering Standing

The analysis of motion, velocity, acceleration, and forces in mechanisms and machines. Emphasis is placed on the analytical methods suitable for computerized analysis as well as graphical methods for visualization and preliminary design studies. Also an introduction to vibration theory, including the modeling and analysis of oscillatory phenomena found in linear discrete and continuous mechanical systems.

ENGR 3131: Strength of Materials

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ENGR 2214 or MET 3121) and MATH 2202

The study and mathematical modeling of the mechanical behavior of materials under load. Emphasis will be on the elastic conditions of equilibrium, compatibility and material behavior. Includes study of stress and strain in columns, connectors, beams, eccentrically-loaded members, as well as introduction to statically indeterminate members.

ENGR 3132: Strength of Materials Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ENGR 3131 may be taken concurrently

The study and performance of laboratory testing and analysis techniques used in the determination of the mechanical behavior of materials under load.

ENGR 3250: Project Management for Engineers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 2600 and Engineering Status

Concurrent: ISYE 1000

This course is a comprehensive study of project concepts, such as project definitions, systems and methodologies, project cycles, roles and responsibilities of leaders and members, and procedures used in industrial and production environments. Topics include such areas as scheduling, controlling projects, time-cost trade-off, resource allocation and project cost control.

ENGR 3305: Data Collection and Analysis in Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2202, CE 2003 and Engineering Standing

This course introduces probability theory and statistical analysis techniques for engineering applications. Major topics include probability and sampling distributions, conditional probability and Bayes' theorem, estimation of parameters, hypothesis test and statistical inference, and linear regression techniques. Students will apply basic statistical techniques to analyze various types of real world engineering data. Emphasis will be given to standard engineering practices. Computer software (e.g., spreadsheet programs) will be used.

ENGR 3324: Project Cost Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and Engineering Standing

A study of the project cost measurement and analysis techniques unique to the engineering profession. Cost analysis procedures and their relationship with cost estimation methodologies are examined. Emphasis is placed on techniques for economy studies of multiple alternatives, uncertainties in forecasts, increment costs, taxes, and retirement and replacement of highways, transportation systems, bridges and public works facilities. Current economic issues are also discussed.

ENGR 3325: Engineering Economic Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and Engineering Standing

Students learn the time value of money and the basic tools used in engineering economic decision making. The tools include engineering factor notation, algebraic formulas, and Excel functionality. The time value effect is studied as equivalences for present worth, annual worth, or future worth evaluations. Useful algorithms are presented for making sound economic investment decisions involving replacement theory, risk analysis, depreciation, tax incentives, rate of return, cost benefit ratio, return on investment, and economic service life.

ENGR 3343: Fluid Mechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214 and Engineering Standing

This course introduces the fundamentals of fluid statics and dynamics including hydrostatic forces on submerged plates, continuity of fluid flow and fluid flow principles. The applications of turbulent and laminar flow in conduits are emphasized. The system approach is practiced in analyzing the applications of flow measuring devices, pipings, pumps and turbines.

ENGR 3345: Fluid Mechanics Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ENGR 3343 (may be taken concurrently) and Engineering Standing

The laboratory reinforces the principles of fluid mechanics, studied in FL 2002, as they apply to hydraulic and pneumatic power, and fluid flow. Developing experimental data into effective laboratory reports is emphasized.

ENGR 3501: Fundamentals of Nuclear Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2202 and Engineering Standing

Concurrent: PHYS 2212 and PHYS 2212L

This course provides an overview of the nuclear sciences field. Topics covered include: basic nuclear physics, radioactivity and radioactive decay process, nuclear reactions, radiation detection, basic health physics, radiation protection, fission and fusion processes, neutron interaction, nuclear energy conversion, different nuclear reactors, reactor operations, reactor control and basic nuclear fuel cycle.

ENGR 3502: Radiation Detection & Measurement

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3501 and Engineering Standing

The detection and measurement of radiation is an integral component of the nuclear sciences field. This course covers the sources and properties of nuclear radiation, mechanism of radiation interaction with matter, detection methods and in particular detection of ionizing radiation that are of primary interest in nuclear power generation as well as medical and industrial applications. Various types of radiation detectors, neutron detection techniques and counting statistics are also discussed.

ENGR 4402: Engineering Ethics

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Engineering Standing

This course looks at the practice of engineering in the context of ethics and ethical theory. Issues of safety, liability, professional responsibility, legal obligations are considered in the context of case studies. Particular emphasis is given to the application of the Professional Engineering Code of Ethics published by the National Society of Professional Engineers. Students will consider the resolution of ethical dilemmas through the development and evaluation of various courses of action related to specific case

studies.

ENGR 4501: Nuclear Power Generation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3501 & Engineering Standing

This course covers the principles of nuclear energy conversion to electric power. The content of the course includes: fundamentals of energy conversion, fission reactors, design and construction of light water reactors with emphasis on boiling water and pressurized water reactors, gas cooled reactors, fast breeder reactors, thermal and structural analysis of reactors and plant components, safety elements and accident prevention systems. The economic feasibility of nuclear power plants will also be discussed.

ENGR 4502: Radiation Protection & Health Physics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3501 & Engineering Standing

This course covers the fundamentals of individual and population health protection against the harmful effects of radiation. Topics included are: different sources of radiation, interaction of radiation with matter, radiation exposure principles and measurement, relationship between radiation exposure and biological damage, radiation protection and safety standards and guidelines, radiation protection instrumentation, internal and external radiation protection, pathways of radiation movement in the environment and radiation shielding.

ENGR 4503: Nuclear Fuel Cycle

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3501 & Engineering Standing

The feasibility and operation of nuclear power plants is directly influenced by the availability of suitable nuclear fuel as well as acceptable methods of disposal of nuclear waste. This course covers the progression of the nuclear fuel through different stages of mining, milling, processing, enrichment, fabrication and use in reactors, interim storage, reprocessing and disposal. The environmental impact of nuclear waste, economics of nuclear fuel cycle, challenges and solutions in management of radioactive waste and the prevailing regulations, standards and best practices are discussed.

Engineering Design Graphics

EDG 1210: Survey of Engineering Graphics

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course introduces the students to a broad range of engineering graphics topics. Freehand sketching, and computer-aided design (CAD) assignments cover theory and application in such areas as fundamentals of engineering graphics, drafting technique, lettering, orthographic projection, sectional views, pictorial drawings, dimensioning, and industry practices.

EDG 1211: Engineering Graphics I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An introduction to engineering graphics in mechanical engineering and manufacturing with an emphasis

on using computer-aided design (CAD) to produce finished engineering drawings according to industry and ANSI standards. Topics include fundamentals of engineering graphics, orthographic projection, sectional views, pictorial drawings, dimensioning, industry practices, file management, geometric construction, basic 3D coordinate geometry, surface models, parametric solid modeling, and drawing composition.

EDG 1212: Engineering Graphics II

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: EDG 1211

A continuation of Engineering Graphics I, covering advanced concepts of 3D geometry, parametric solid modeling, boundary representation of solids, databases for manufacturing and inspection, an introduction to geometric dimensioning and tolerancing according to the American National Standards Institute.

EDG 2160: Civil Graphics and Computer Aided Drafting

0 Class Hours 6 Laboratory Hours 3 Credit Hours

An introduction to graphic principles and practices in civil engineering technology. This course includes the development of the basic drafting skills needed to produce civil engineering plans and graphical presentations. The elements of descriptive geometry are addressed. A major component of the course is an introduction to the fundamentals of computer-aided drafting and design (CADD).

EDG 3112: Advanced Engineering Graphics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1212

This course covers advanced 3D CAD features and solid modeling techniques including patterning, configurations, library features, sketch blocks, advanced assemblies, and multi-body parts. Students who complete this course are eligible for the SolidWorks CSWP exam.

EDG 4111: Surface Modeling

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1211

This course covers surface modeling in 3D CAD, combining surface modeling, solid modeling and creating master models. The student is introduced to complex solid modeling, free form surface modeling and surface analysis. Splines, curves and three-dimensional sketches are used in conjunction with surfacing techniques to create shapes common to the automotive or aircraft industry. The shapes are analyzed for surface continuity to optimize designs.

EDG 4222: CAD Customization and Standards

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1212

This course covers topics in customizing CAD software and creating company standards. Topics include identifying company requirements, customizing the user interface, and writing company standards for

the use of the software.

EDG 4224: Engineering Design Graphics for Custom Manufacturing

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1212, MET 1321, and MET 2322

Advanced 3D CAD features are covered including: sheet metal, weldments, and surface modeling. Students will design and fabricate various metallic parts using an English Wheel, 3-Axis Bead Roller, and Shrinker/Stretcher machines.

Engineering Technology

ENGT 2124: Statics with Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and ((PHYS 1111 and PHYS 1111L) or (PHYS 2211 and PHYS 2211L))

2D and 3D forces and moments acting on components, machine parts, frames, and structures are analyzed. Static rigid body force systems in equilibrium, including friction applications are included. Distributed load calculations using centroids and centers of gravity located by composite and CAD methods are practiced. An introduction to calculating the moments of inertia of machines and structures is also included. Real 2D and 3D design applications are emphasized. Assumptions considering safety, economics, quality and function are discussed. Not equivalent to ENGR 2214,

ENGT 3124: Strength of Materials with Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214 or ENGT 2124

Concurrent: ENGT 3124L

A study of stress and strain of deformable bodies in tension, compression, bending, and torsion. Topics include: axial stress and strain, thermal stress and strain, statically indeterminate systems, torsional stress and strain, power transmission in shafts, bending stresses in beams, beam deflections, combined stresses, elastic buckling in columns, and finite element analysis methods. ENGT 3124 and ENGT 3124L should be taken concurrently, but if a student has credit for one, the other can be taken alone.

Notes: Not equivalent to ENGR 3131

ENGT 3124L: Strength of Materials Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Corequisite: ENGT 3124

The application of laboratory testing and analysis of results to determine the mechanical behavior of materials under load.

English

ENGL 0999: Support for English Composition (ENGL 1101)

3 Class Hours 0 Laboratory Hours 1 Credit Hours

Corequisite: ENGL 1101

This course provides corequisite skills and additional instruction for topics and concepts covered in ENGL 1101 Composition I.

ENGL 1101: Composition I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Registration in ENGL 0999 (Support for English Composition) co-requisite course, if Learning Support English is required.

Focuses on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation. Also includes introductory use of a variety of research skills.

ENGL 1102: Composition II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in ENGL 1101

Focuses on developing writing skills beyond the levels of proficiency required by ENGL 1101. Emphasizes interpretation and evaluation and advanced research methods. .

ENGL 2110: World Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in ENGL 1102

This course is a survey of world literature that explores human experience by examining diverse aesthetic and cultural perspectives from ancient to modern times.

ENGL 2111: Early World Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of world literature from ancient times through the mid-seventeenth century.

ENGL 2112: World Literature mid 1600s to Present

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of world literature from the mid-seventeenth century to the present.

ENGL 2120: British Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of British literature.

ENGL 2121: Early British Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of British literature from the Old English period through the neoclassical age.

ENGL 2122: British Literature late 1700s to Present

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of British literature from the Romantic era to the present.

ENGL 2130: American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of American literature.

ENGL 2131: Early American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of American literature from the pre-colonial age to the mid-nineteenth century.

ENGL 2132: American Literature mid 1800s to Present

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of American literature from the mid-nineteenth century to the present.

ENGL 2145: Introduction to English Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course introduces students to the reading, writing, research, and critical strategies essential to KSU English Studies. The course draws connections among the four content areas in the English Department (Literature, Language, Writing, and Theory) and focuses on their relationship to broader social and personal contexts, enabling students to make informed choices about their program of study and their

careers.

ENGL 2160: American Literature Survey

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This survey of American literature from its beginnings to the present introduces English and Secondary English Education majors to the historical periods and major trends and figures of American literature.

ENGL 2172: British Literature, Beginnings to 1660

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This survey of British literature from its beginnings to 1660 introduces English and Secondary English Education majors to the historical periods and major trends and figures of British literature.

ENGL 2174: British Literature, 1660 to Present

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This survey of British literature from 1660 to the present introduces English and Secondary English Education majors to the historical periods and major trends and figures of British literature.

ENGL 2271: Introduction to Teaching English Language Arts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course provides an introduction to teaching English Language Arts (grades 6-12). Through the study of theory and practice, context-based models, and specific applications, students explore the potential of the English Language Arts classroom and investigate the professional roles, relationships, and responsibilities of the English Language Arts teacher. This course is a prerequisite for all other English Education courses and mandatory for admittance to the English Education program.

ENGL 2290: Special Topics

1-12 Variable Credit Hours

Students will explore special topics relevant to the Department of English.

ENGL 2300: African-American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of important works of African-American literature.

ENGL 3230: Literary Genre

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of the development and history of a particular literary form, such as narrative, poetry, or drama, through the exploration of representative works. Particular attention is given to the evolution of new strategies for the creation and reception of the genre and to the aesthetic, historical, and cultural conditions that shape those strategies.

ENGL 3232: Topics in Drama

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of selected topics, authors, or periods of dramatic literature. The course also addresses the fundamental literary generic characteristics of dramatic form, including plot, character, action, and setting, as well as the conventions of dramatic genres, such as tragedy, comedy, tragicomedy, closet, and narrative drama.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3241: Technology and Digital Media in English/Language Arts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2271 and admission into the English Education program

This course provides students with experience in the ways that digital media and technology can be used meaningfully in the English/Language Arts classroom. Students consider, experiment with, and apply specific technologies in order to develop comfort with and control over these tools. The course prepares students to develop adolescents' literacy practices with technology in the English/Language Arts classroom.

ENGL 3250: Teaching Writing in Middle Grades Language Arts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2271

This course is an exploration of current theories of composition pedagogy in practice at the middle grades level, including a variety of strategies for teaching and assessing writing while dealing with institutional policies (including state standards and high-stakes testing). Students write for a variety of purposes and audiences; analyze traditional and non-traditional writing assignments for their strengths and limitations; and develop effective instructional strategies, materials, and assessments.

ENGL 3270: Teaching Grammar and Usage in Middle Grades Language Arts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2271

This course examines approaches for teaching grammar in the middle grades. Students practice grammatical appropriateness in oral and written communication; develop an understanding of grammatical concepts and constructions; analyze errors in order to develop effective instruction; study structures as a means of promoting syntactic growth and diversity of style in writing; and develop constructive, use-based lessons. This course includes an overview of modern grammars, the history of grammar instruction, and research on grammar instruction.

ENGL 3310: Principles of Writing Instruction

5 Class Hours 3 Laboratory Hours 6 Credit Hours

Prerequisite: ENGL 2271 and admission into the English Education or Secondary and Middle Grades Language Arts program

This course provides an exploration of theories of composition pedagogy and assessment, including a variety of strategies for teaching writing while dealing with institutional policies such as standardized testing. Students practice oral and written communication for various audiences and purposes; create, implement, and assess writing instruction in a middle school setting; and create and practice research-supported approaches to grammar instruction. The course includes a 45-hour embedded field experience in a middle school.

ENGL 3320: Scriptural Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of authors, themes, genres, and composition of scriptural writings.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3322: Hebrew Scriptures as Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300.

This course is a study of the Hebrew Scriptures of the Bible, known to Christians as the Old Testament, as literature, concerning its aesthetic value with respect to authors, themes, genres, and composition within the context of its original Hebrew and Jewish audiences. Students improve and refine their abilities to read, think, write, and speak critically and cogently about scriptural literature and have an increased familiarity with much of the Hebrew Bible.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3324: New Testament as Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300.

This course is a study of the New Testament of the Bible as literature, concerning its aesthetic value with respect to authors, themes, genres, and composition within the context of its original Mediterranean audiences. Students improve and refine their abilities to read, think, write, and speak critically and cogently about scriptural literature and have an increased familiarity with much of the New Testament.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3330: Gender Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300.

This course is a study of literature using gender as the primary category of analysis. Viewing gender as a social construction, it explores such issues as gendered roles in society, interactions between private and public life, gender's relation to canon formation, and individuals' struggle to define their place in culture in the face of gendered expectations. It may focus on a region or nation, a time period, a theme, a representative individual, or some combination.

ENGL 3340: Ethnic Literatures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of literature using ethnicity as the primary category of analysis. Individual offerings of the course might survey a range of ethnic literatures (e.g., Asian American, Chicano, Native American, Jewish) or explore one such body of texts (e.g., Caribbean literatures).

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3350: Regional Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, EDUC 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of literature using region as the primary category of analysis. Texts might include fiction and nonfiction, performance texts (such as drama and folktales from the oral tradition), and examples of material culture. The class might focus on a specific geographic region (e.g., the Caribbean); a comparative study of regional culture (e.g., Faulkner's Yoknapatawpa vs. Hardy's Wessex); or authors or themes closely associated with a region (e.g., Cather's West).

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3360: Major African American Writers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course concerns the development of African American literature with emphasis on major writers defining trends, movements, genres, and themes.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3390: Great Works for Middle Grades Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a survey of classic literature written by diverse authors. It focuses on text analysis and writing about literature. The texts studied are frequently found in the middle grades classroom.

ENGL 3391: Teaching Literature to Adolescents

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2271 and admission into the English Education program

Using narrative as a central genre, this course introduces current English teaching philosophy and practice in teaching literature to adolescents. This course models current ways to integrate technology into the curriculum, identifies a variety of multicultural teaching texts, and extends the study of critical theory into the teaching of literature to adolescents.

ENGL 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/ internships (Career Services).

A supervised work experience program for a minimum of two semesters at a site in business, industry or government. For sophomore, junior, or senior-level students who wish to obtain on-the-job experience in conjunction with their academic training.

ENGL 3398: Internship

1-12 Credit Hours

Prerequisite: Approval of departmental internship adviser.

This course is a supervised, credit-earning work experience of one semester with a previously approved business firm, private agency, or government agency.

ENGL 3400: Survey of African Literatures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a survey of African literatures, including the orature, literature, performance texts, film and/or other media produced in each quadrant of Africa, from early times to the present day. For example, the course might survey African narrative, looking at a selection of early epics, folktales, short stories or novels representing themes, motifs, and styles in each quadrant of Africa.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3500: Topics in African American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2300, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of a selected topic of African-American literature. For example, the course might focus on a single artist (such as Ralph Ellison), a group of artists (such as writers of the Harlem Renaissance), a genre (such as the slave narrative), a source or technique (such as folklore in twentieth century novels), or a theme or issue (such as depictions of women, the oral-musical tradition or humor and signifying).

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 3600: Topics in African Diaspora Literatures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of a selected topic in the areas of the African Diaspora. For example, the course might focus on a single author or group of authors: "The Novels of Paule Marshall"; a country or region: "Caribbean Literatures"; a movement or an event: "Post-Colonial Caribbean Literatures"; a theme or issue: "Twentieth-Century Caribbean Women Writers"; a genre: "African, African American and Afro-Caribbean Autobiography"; or a combination of these or other categories.

ENGL 4220: Critical Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

An advanced course in interpretive theoretical paradigms as applied to the study of literature and culture, focusing on critical models such as Marxism, Structuralism, Poststructuralism, Deconstruction, Psychoanalytic criticism, and Gender, Ethnic, and Cultural studies.

ENGL 4230: Theory-Based Studies in Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

Concentration on the interpretive strategies and conceptual framework of one of the major paradigms of contemporary literary theory, with attention to the ways in which those paradigms enable the study of a select group of texts, both literary and nonliterary. Topics may include Feminist theory, Marxism, Post-Colonialism, Psychoanalytic Criticism, Cultural Materialism, Ethnic studies, Gender studies, New-Historicism, and Reader Response theories.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4240: Rhetorical Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This advanced course is a study of major texts in rhetorical theory from antiquity to the present, focusing on the significant issues in rhetoric, especially the relationship of language to truth and knowledge. Students gain practice in using rhetorical concepts to analyze both literary and non-literary texts and to produce effective written and spoken arguments.

ENGL 4340: Shakespeare

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of selected comedies, histories, and tragedies, covering the range of Shakespeare's dramatic art. It may include dramatic form and poetic composition as commentaries on the dramatic genres and an examination of performance theory and practice.

ENGL 4360: American Literature Before 1800

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

Literary studies of colonial and early United States literature. Prior to 1800 in the Americas, complex and diverse encounters of Old and New World cultures resulted in the Constitution of the United States of America and the emergence of its wide range of literatures.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4370: British Medieval and Chaucerian Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

Studies in Middle English literature, including Chaucer. May include prose, poetry, and drama and investigate aesthetic, intellectual, and social issues.

ENGL 4372: British Renaissance Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

British literature from the late fifteenth century to 1660, generally exclusive of Shakespeare. May include poetry, prose, and drama and investigate aesthetic, intellectual, and social issues.

ENGL 4374: Studies in Restoration and Eighteenth-Century Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

British literature from 1660 to the late eighteenth century. May include poetry, prose, and drama and investigate aesthetic, intellectual, and social issues.

ENGL 4380: World Literature Before 1800

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative texts, major themes, or literary movements of the period, emphasizing aesthetic and social understanding. The course may examine Western and non-Western cultures.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor, curriculum committee, and department chair required prior to registration.

Selected topics of an advanced nature that may include original research for superior students. Normally for projects not served through pre-established curriculum.

ENGL 4401: Topics in African Literatures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of a selected topic in the areas of orature, literature, performance texts, film and/or other media produced in Africa. The course might focus on an author or group of authors: "The

Plays of Wole Soyinka"; a region or country: "Twentieth Century South African Literature"; a movement or event: "African Writers of the Negritude Movement"; a theme or issue: "Women's Rights in African Literature"; or a combination of these categories.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4460: 19th-Century American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative writers in American literature in the nineteenth century.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4470: 19th-Century British Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

Studies in Romantic and Victorian literature, from the 1780s to the end of the nineteenth century, examining such aesthetic and social themes as the nature and role of the artist, the impulse toward Gothicism, the rise of the autobiography, responses to industrialization, and the conflict between tradition and change, as these are expressed in representative texts of the period.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4480: 19th-Century World Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative texts, major themes, or literary movements of the nineteenth century, emphasizing aesthetic and social understanding. The course may examine Western and non-Western cultures.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4490: Special Topics in English

1-3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of selected topics of special interest to faculty and students.

ENGL 4560: 20th-Century American Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative texts, major themes, or literary movements in twentieth-century America, emphasizing aesthetic and social understanding.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4570: 20th-Century British Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative twentieth-century British literature.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4580: 20th-Century World Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 2145

A study of representative texts, major themes, or literary movements of twentieth-century literature, emphasizing aesthetic and social understanding.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

ENGL 4620: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Completion of 90 hours, and permission of the department

The senior seminar is a summative academic experience that builds on previous coursework and gives advanced English majors the opportunity to engage with in-depth research on a topic related to language, literature, or writing. The small class size fosters a community of readers and writers that provides support in the process of writing a substantial seminar essay informed by current scholarship. Students also develop their communication skills through oral presentations.

LING 3020: Linguistics and Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300 .

This course surveys intersections between linguistics and literary studies. It introduces students to one or more of the major linguistic theories and methodologies that can inform literary analysis, such as semiotics, poetics, pragmatics, narrative theory, structuralism, post-structuralism, (neo-)formalism, discourse analysis, or stylistics.

LING 3025: Linguistics for Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: None

Prerequisite: ENGL 1102

Because language study is a key component of the English/Language Arts classroom, this course focuses on specific linguistic aspects of the English language (e.g., morphology, stylistics, discourse, etc.), grammar in context, language variation in life and literature, and sociolinguistic implications of teaching English. There is a strong focus on methodology, such as examining pedagogical stances and creating lesson plans.

LING 3030: Studies in Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a study of the theories and methods of linguistics, including their application to topics such as language acquisition, sociolinguistics, politics, discourse analysis, advanced grammar, or the historical development of English.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

LING 3035: Introduction to Language and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course analyzes the nature of human language. It includes an introduction to speech sounds, morphology, and syntax. A heavy emphasis is placed on the social and pedagogical implications of modern linguistic theory, which includes an examination of issues such as Standard English, dialect variation, language acquisition, or English as a Second Language.

LING 3040: History of the English Language

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a study of the development of English, with attention to influential historical events and to the evolving structure of the language.

LING 3045: Grammar of Contemporary American English

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course surveys both traditional and contemporary approaches to grammar. It addresses long-established grammatical terms and concepts, inviting students to critically examine the notion of "correct" grammar and to discuss the development and maintenance of standard language. It also

considers contemporary topics such as rhetorical grammar, functional grammar, and grammar in digital environments. This course is particularly useful for students considering careers in education, editing, or professional writing.

LING 3050: Sociolinguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is an introduction to English sociolinguistics. It surveys how language is impacted by social variables such as ethnicity, gender, age, sexuality, and geography. It also explores topics including slang, jargon, dialect, identity, and power. Students are introduced to the basic subfields of linguistics- phonology, morphology, and syntax-before venturing into deeper sociolinguistic issues. The course should interest students pursuing careers in education, writing, business-and those wanting to expand their knowledge of linguistics.

LING 3055: Politics and Language

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course surveys a number of the most important intersections between linguistics and politics in American and global cultures today. Topics may include the "English only" movement; political correctness; the politics of gendered language; framing theory and the language of American political debate; language, ideology, and discourse analysis; and the politics of English as a "global" language. This class may be of particular interest to students heading towards careers in journalism, law, politics, or education.

English as a Second Language

ESL 1105: Grammar Seminar for International Students

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is an individualized and small group seminar open to all Kennesaw State University students for whom English is a second language. International students will discuss North American English (NAE) grammar and its academic applications, focusing on those features of the language that are most problematic for second language writers and speakers. The development of editing skills is emphasized.

ESL 1106: Oral Communication for International Students

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is open to all Kennesaw State University students for whom English is a second language. The course is designed to help intermediate to advanced ESL students improve both their conversation and public speaking skills through small group activities and class presentations. Also, pronunciation practice will play an important role throughout the course in helping students become more confident speakers of North American English (NAE).

English Education

ENED 4000: Service Learning in English Education

1-3 Class Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

ENED 4414: Teaching of English Language Arts I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 3241, ENGL 3310, ENGL 3391, and admission to the English Education program and Yearlong Clinical Experience.

Corequisite: ENED 4650

This course addresses the practical application of English Language Arts curricula, learning theories, teaching strategies, instructional materials, and assessment choices within specific teaching contexts. The course emphasizes justifying teaching decisions based on clear rationales anchored in practice, theory, and research; refining the facilitation of high levels of learning in all students through effective practices; and adjusting teaching moves based on evidence, such as classroom self-observation, student response and performance, and student products.

ENED 4416: Teaching English Language Arts II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENED 4414 and ENED 4650

Corequisite: ENED 4660

This course continues the practical application of English Language Arts curricula, learning theories, teaching strategies, instructional materials, and assessment choices within specific teaching contexts begun in Teaching of Language Arts I. This course emphasizes justifying teaching decisions based on clear rationales anchored in practice, theory, and research; refining the facilitation of high levels of learning in all students through effective practices; and adjusting teaching moves based on evidence, such as classroom self-observation, student response and performance, and student products.

ENED 4498: Internship in Teaching English

0 Class Hours 18 Laboratory Hours 12 Credit Hours

Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching English.

Student teaching experience in English for employed, provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in the local school and a university English education supervisor. When taken for 12 hours of credit at the same school, this internship will automatically substitute for ENED 4475. Proof of professional liability insurance is required. Students are responsible for their own school placements.

ENED 4650: Yearlong Clinical Experience in ELA I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: ENGL 3241, ENGL 3310, ENGL 3391; Admission to the English Education Program; Pre-Service Certificate; Admission to Yearlong Clinical Experience

Corequisite: ENED 4414, EDUC 4610, INED 3305, and INED 4435

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in English education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required.

ENED 4660: Yearlong Clinical Experience in ELA II

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: ENED 4650, Educator Ethics Assessment 370, and GACE eligibility.

Corequisite: ENED 4416, INED 3306, and INED 4436

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in English Education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required.

Entrepreneurship

ENTR 4001: Entrepreneurial Mind

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Using an experiential, applied approach and global perspective, this course introduces students to the fundamentals of an entrepreneurial mindset consisting of creatively encouraging big dreams and then identifying and differentiating between ideas and opportunities. It introduces the four key elements of entrepreneurship: mindset, resource acquisition, adaptive planning and creating value. It serves as a framework and catalyst to stimulate entrepreneurial motivation and action to create new ventures.

ENTR 4002: Venture Creation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENTR 4001, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

As an introduction to creating value for an entrepreneurial venture, this course provides information to increase students' awareness of the importance of being both externally-centric (focusing on definitions of value from the customer perspective) and internally-directed. This is achieved by developing and

implementing strategies that meet customer expectations and satisfy the objectives of the new venture.

ENTR 4003: Venture Funding

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENTR 4001, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Students identify and examine different types of financing, differentiate between venture capital and angel investor funding, and locate alternative financing (such as crowd-funding, peer-to-peer lending, micro-loans, and SBA loans). Additionally, students learn how to determine the value of a new venture. The course explores sourcing and acquiring financial resources that are required in new venture start-ups. Exit strategies including mergers, acquisitions, firm sales, and initial public offerings (IPOs) are examined.

ENTR 4004: Venture Commercialization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENTR 4002 and ENTR 4003, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course integrates the aspects of developing the entrepreneurial mindset, creating market value, financing the venture, and commercializing the opportunity for a new for-profit, enterprise initiative (Intrapreneurship) or social business venture. The students execute the action phase of the business plan, engage capital strategies, secure charter customers, interview community entrepreneurs, and formally pitch the new venture for critique by entrepreneurs or venture capitalists.

ENTR 4400: Directed Study

1-3 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Special topics of an advanced nature not in the regular course offerings.

ENTR 4490: Special Topics in Entrepreneurship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Selected topics of interest to faculty and students.

Environmental Science

ENVS 2202K: Introduction to Environmental Science

3 Class Hours 3 Laboratory Hours 4 Credit Hours

This course is an examination of contemporary environmental issues related to Earth's natural systems such as human population dynamics, natural resources, environmental quality, global changes, and environmental values in society. Students will learn how to apply scientific principles and data to gain an understanding of modern environmental challenges on local, regional, and global scales.

ENVS 3100K: Soil & Water Science

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (CHEM 1211 and CHEM 1211L) and (CHEM 1212 and CHEM 1212L)

This course will provide an overview of soil and water science including study of the physical, chemical and biological properties of each and how these properties relate to soil health and water quality. Students will consider human activities that impact soil and water resources, learn how to assess those impacts and apply management approaches towards them. Laboratory exercises will involve the application of techniques for monitoring soil and water quality and methods for remediation.

ENVS 3150K: Environmental Toxicology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1108 and BIOL 1108L) and (CHEM 3361 and CHEM 3361L)

Environmental toxicology is the study of the nature, properties, effects and detection of toxic substances in the environment and environmentally exposed species, including humans. Students taking this course will learn to quantify environmental exposures using dose-response relationships, categorize the absorption of toxicants, calculate the distribution of storage toxicants, describe the biotransformation and elimination of toxicants, determine target organ toxicity, teratogenesis, mutagenesis, and carcinogenesis of various toxins and manage the risks associated with them.

ENVS 3350: Oceanography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (CHEM 1212 and CHEM 1212L) and (BIOL 1108 and BIOL 1108L)

Students in this course will learn how plate tectonics affect the positioning of our continents, how the physical and chemical makeup of seawater affects the ocean's properties, and how air-sea interactions, ocean circulation, waves and tides all affect our climate. Finally, students will explore the biological richness of the ocean ecosystem by studying coastal habitats, biological productivity, pelagic and benthic marine organisms, marine pollution and the exploitation of marine resources.

ENVS 3398: Internship

Variable 1-4 Credit Hours

Prerequisite: 90 credit hours and permission of the instructor.

A structured out of the classroom experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the student's advisor and internship coordinator.

ENVS 3450: Conservation Biology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 1108 and BIOL 1108L

This course will cover fundamental principles of conservation biology. Students will learn about the history and development of the conservation movement, learn how to examine human impacts on plants and wildlife, delve into interaction of conservation and society, and determine how to manage and conserve endangered species. Class exercises will cover quantitative techniques used to evaluate and predict the status of plant and animal populations and ecological methods for monitoring and maintaining biodiversity in ecosystems.

ENVS 3720: Sustainability at KSU

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (BIOL 1108 and BIOL 1108L) or GEOG 1113

The course includes an in-depth survey of sustainability efforts in the areas of campus facilities and curriculum at Kennesaw State University and is especially relevant for students with interest in the area of Environmental Studies. The course has a service-learning component in which teams of students examine aspects of KSU's sustainability activities and develop proposals to improve or enhance ongoing efforts or introduce new ones.

Notes: This course is cross-listed with BIOL 3720.

ENVS 3730: Natural Resource Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in (BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L) or (SCI 1101 and SCI 1102)

This is an introductory course designed to provide students with a basic foundation for an understanding of the importance of natural resource conservation within the context of a variety of local, regional, national, and global resource and environmental concerns. This course examines the effects various natural resource management practices have on the quality of life for both present and future generations with much of the material focusing on the concept of sustainable development.

ENVS 4000K: Wetlands and Mitigation

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in BIOL 1107 and BIOL 1107L and ENVS 3100K

This course covers wetlands as components of natural landscapes. Students will learn to characterize the biogeochemistry, hydrology, geomorphology, and soil properties of wetlands. Students will learn how to classify wetlands by considering soil and hydrologic factors important to wetland delineation and jurisdictional determination. Finally, students will learn how to mitigate impacts on wetlands with an emphasis on wetland restoration and creation.

ENVS 4200: Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Any geography or science lab course and 60 credit hours.

This course is designed to prepare students for scientific research in the environmental field and related disciplines. It introduces students to a variety of spatial and environmental research concepts, approaches, methods, and techniques. This course guides students through aspects of scientific research.

Notes: This course is crosslisted with GEOG 4200.

ENVS 4300: Environmental Ethics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STS 1101

This course is designed to extend the traditional boundaries of the ethical relationships between humans to the nonhuman world in the natural environment. Philosophical and social issues have surfaced in the twenty-first century emerging as environmental ethical dilemmas demanding resolution. Case studies and a variety of interdisciplinary literature pieces are incorporated which allow students to consider the impact of ethical dilemmas and evaluate their social influences.

ENVS 4399: Environmental Science Seminar

1 Class Hours 0 Laboratory Hours 1 Credit Hours

This seminar will explore current topics in environmental science, regulation, and policy. Faculty and outside speakers from government and private industry will give presentations and lead discussions. Students will be expected to attend all lectures and participate.

European Studies

EUST 2050: Introduction to European Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English Requirements, including ENGL 1101, if required

This course is a survey of the foundational figures, themes, and texts in European Studies in an interdisciplinary and global context. It serves as an introduction to European Studies with a focus on the

Modern Era. Students engage with appropriate texts from a variety of European countries and cultures in an interdisciplinary intellectual environment.

EUST 4040: Capstone in European Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EUST 2050 or permission of the instructor

This course offers an in-depth examination of a topic or major figure relevant to the field of European Studies. This course may include but not be limited to humanistic, analytical research and / or literary analysis; and / or community engagement exercises with the express purpose of applying knowledge in the field of European Studies in the community.

Exercise Science

ES 2100: Physical Activity in Health and Disease

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides an epidemiological foundation to physical activity research specific to public health. Participants will examine the literature relative to the physiological impact of regular physical activity on chronic diseases (e.g., cardiovascular diseases, diabetes, cancer, etc.).

ES 2200: Safety Training for the Fitness Professional

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Exercise Science or Sport Management majors.

The purpose of this course is to provide students with the knowledge and skills necessary to help provide a safe environment for athletes while they are participating in sport/exercise and, in an emergency, to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Students will have the opportunity to become certified in First and CPR/AED for the Professional.

ES 2290: Special Topics

1-3 Credit Hours

This course includes select physical activity units not regularly offered through the Department of ESSM.

Notes: Repeatable.

ES 2300: Medical Terminology

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Exercise Science Major or Public Health Education Major Concurrent: BIOL 2221 or HPE 2250

This course will cover the basic techniques for anatomical, physiological, and medical word-building. The course will teach a systematic approach to defining general medical terms and terms for pathological disorders by dividing them into word roots, combining forms, suffixes, and prefixes.

ES 2500: Principles of Nutrition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science or Sport Management major.

This course is designed to introduce students to the basic principle of nutrition as needed for general health. Topics include the role of diet in the development and prevention of chronic diseases, such as cardiovascular disease, cancer, diabetes, etc.; macro- and micro-nutrient needs for optimum health; U.S. dietary guidelines (and international equivalents); tools to assist with menu planning; and dietary analysis.

ES 3100: Group Exercise Leadership

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in BIOL 2221

Concurrent: ES 2200

This course is designed to provide students with leadership skills and experience that directly apply to group exercise programming. Topics include current trends in group exercise, program design and implementation, monitoring exercise, evaluation of existing programs, and administrative considerations.

ES 3200: Research Methodology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in STAT 1107 , and 60+ credit hours.

This course provides an overview of the research process applied in the study of exercise and health science. Students are introduced to simple experimental design, data gathering techniques, statistical concepts and methods, and research writing.

ES 3398: Internship in Exercise Science

1-3 Credit Hours

Prerequisite: Exercise Science major and approval of the department chair

This course offers students a supervised, credit-earning experience of one academic semester with a previously approved business firm, sport organization, private agency or governmental agency. Students must have current professional liability insurance and CPR/AED certification. Credit may be placed in the elective areas.

Notes: S/U grading only. Repeatable once.

ES 3600: Health Fitness Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in BIOL 2221 and ES 2200

This course provides an introduction to the professional standards and guidelines that assist a health and fitness facility with providing quality service and program offerings in a safe environment. Course content will include an overview of risk management and emergency policies, operating practices, facility

design and construction, equipment concerns and signage issues related to health and fitness facilities.

ES 3700: Strength and Conditioning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major a grade of "C" or better in BIOL 2221 and ES 2300

Corequisite: ES 3750 Strength and Conditioning Laboratory

This course offers students an introduction to scientific and practical foundations associated with strength and conditioning programs. The course content promotes the use of a structured scientific approach in the prescription of progressive resistance training and cardiorespiratory conditioning.

ES 3750: Strength and Conditioning Laboratory

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in BIOL 2221 and ES 2300

Corequisite: ES 3700: Strength and Conditioning

This laboratory course provides an introduction to techniques commonly associated with instructing strength and conditioning programs. The laboratory content promotes the use of a structured scientific approach in the prescription of progressive resistance training and cardiorespiratory conditioning.

ES 3800: Biomechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in BIOL 2221 and ES 2300

This course introduces students to the study of neuromuscular and mechanical principles of motion related to the analysis of human movement.

ES 3900: Physiology of Exercise

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in BIOL 2222

This course provides an overview of the human body's responses to the stress of physical exercise. Students are introduced to the metabolic, cardiovascular, pulmonary and neuromuscular adaptations to acute and chronic exercise.

ES 4000: Service Learning in Exercise Science

1-3 Credit Hours

Prerequisite: 60+ semester hours, Exercise Science major and permission of the department chair.

This course offers students a community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. The community activity is designed with the instructor and approved by the department chair.

ES 4200: Nutrition and Performance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in (ES 2500 or CSH 2500) and ES 3900

This course covers the nutritional needs of individuals participating in exercise and sport. Topics include but are not limited to the dietary needs of the human body before, during and after various modalities and intensities of athletics in order to optimize performance.

ES 4300: Physiology of Exercise and Aging

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major. a grade of "C" or better in ES 3900

This course provides an overview of exercise physiology and healthy aging. The course emphasizes special considerations during fitness assessment, exercise prescription, and health promotion for special populations including the older adult, children, adolescents, and females during pregnancy and the post-partum period.

ES 4400: Directed Study

1-15 Credit Hours

Prerequisite: 2.75 Institutional GPA, Exercise Science major, 60+ semester hours and permission of the department chair

This course covers topics and seminars of an advanced nature external to regular course offerings.

ES 4490: Special Topics in Exercise Science

1-3 Credit Hours

Prerequisite: 2.75 Institutional GPA, Exercise Science major

This course includes selected topics of interest to faculty and students not regularly offered by the Department of ESSM.

ES 4500: Physiology of Exercise II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 3900

Corequisite: ES 4550: Exercise Science Laboratory Techniques

This course examines the study of the physiological basis of training and factors limiting human performance. Students are introduced to concepts of neuromuscular function, hormonal control, environmental conditions and ergogenic aids as they relate to acute and chronic exercise.

ES 4550: Exercise Science Laboratory Techniques

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 3900

Corequisite: ES 4500: Physiology of Exercise II

This course provides an introduction to laboratory techniques commonly used in the field of exercise science. The course includes an overview of ergometry, energy expenditure, blood pressure, cardiovascular, pulmonary, and musculoskeletal responses during exercise. The topics within the course include safe, legal, and ethical practices required when working in an exercise physiology laboratory.

ES 4600: Exercise Prescription

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 4500 and ES 4550

Corequisite: ES 4650: Exercise Testing

This course introduces students to methods utilized in creating exercise prescriptions and developing exercise programs. Emphasis is placed on developing and delivering safe and valid exercise prescriptions.

ES 4650: Exercise Testing

0 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 450 and ES 4550

Corequisite: ES 4600: Exercise Prescription

Exercise Testing is a detailed examination of various fitness assessments. This course emphasizes current test procedures used for determining body fat percentage, maximum oxygen uptake, maximum power output, and muscular strength and endurance. This course thoroughly familiarizes students with lab procedures, test protocol, and the interpretation.

ES 4700: Clinical Exercise Physiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 4500 and ES 4550

This course is designed to address the clinical aspects and implications of exercise physiology principles for those with or at risk of developing cardiovascular, pulmonary or metabolic disease.

ES 4800: Clinical Biomechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 2.75 Institutional GPA, Exercise Science major, a grade of "C" or better in ES 3800

This course includes a survey of acute and chronic activities related to injury and biomechanical mechanisms. The course will expose students to basic kinetic and kinematic analyses. The course includes an examination of contemporary theories of prevention using a biomechanical perspective.

ES 4900: Exercise Science Senior Seminar

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 4500 and ES 4550, 90+ credit hours

This course is a capstone course designed as a culminating experience for the major by integrating the student's prior academic experience in exercise science. Students are provided an overview of contemporary issues, trends, theories, and research related to exercise science. The course is delivered in a seminar format to encourage student participation and interaction with peers and faculty.

ES 4950: Exercise Science Senior Internship

3 to 12 Credit Hours

Prerequisite: Exercise Science major, a grade of "C" or better in ES 4500 and ES 4550, 90+ credit hours, and approval of the department chair.

This course is a senior-level credit-earning experience at an approved exercise science internship site. During this course, students work under the direct supervision of an exercise science professional and university supervisor. Students must have current professional liability insurance and CPR/AED certification.

Notes: Credit for the course can be placed in the elective areas only.

Film

FILM 2290: Special Topics

1-12 Class Hours

Prerequisite: Varies based on subject

Special topics selected in the study of Film.

FILM 3105: Fundamentals of Writing for Film and Television

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 213 , ENGL 213 , ENGL 213 , or ENGL 2300

This is a professional seminar for anyone interested in learning about and/or breaking into the entertainment industry - specifically focusing on film and television. Hollywood blockbusters and great television shows are studied from a story structure perspective. Students learn how to develop, pitch, write, and sell commercial film and TV concepts/scripts; they examine film and TV production jobs, including how to get one in Georgia. This is essential training for screenwriters, novelists, directors, and executives.

FILM 3200: Film History and Theory I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

A survey of the major developments, movements, and critical approaches in international cinema from 1895-1950, this course emphasizes an understanding of the historical, cultural, commercial, and aesthetic contexts that influence film. The course also develops the student's understanding of a film's narrative and visual structure and its place within established theoretical traditions.

FILM 3210: Film History and Theory II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300.

This course is a survey of the major developments, movements, and critical approaches in international cinema since 1950, including a consideration of American independent film and recent digital cinema. The course emphasizes an understanding of the historical, cultural, commercial, and aesthetic contexts that influence film, but also develops the student's understanding of a film's narrative and visual structure and its place within established theoretical traditions.

FILM 3220: Studies in Film

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course features the analysis of film from such perspectives as genre, literary and film aesthetics, and literary adaptation. It may include screening of selected films.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

FILM 4105: Advanced Writing for Film and Television

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FILM 3105

Using the basic skills gained in the fundamentals course students will now expand beyond mastery of the scene and write an entire film or television script over the course of the semester. This is an intensive writing course. Along with a strong desire to write professionally, independence, discipline and collegiality are requisites for success in this course. Students must come to class prepared with at least one story idea for an original full-length movie, pilot TV series, or speculative episode of a TV series in mind. Students will be divided into groups, based loosely on genre. In addition to their work in class, students will also work with each other out of class. Students will complete the class with an original script, advanced knowledge of the screen and television writing crafts, and experience in the professional collaborative process.

FILM 4200: Advanced Studies in Film

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FILM 3200 or FILM 3220 or permission of the instructor.

An intensive study of selected topics in American and international cinema, emphasizing critical theory and analysis of films and related readings.

Notes: This course can be taken more than once provided the course content differs entirely from the previous offering.

Finance

FIN 2500: Consumer Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites:

Completion of all Learning Support English and Mathematics courses, if required

A nontechnical course designed to develop an understanding of the basic principles and techniques as they apply to personal income, spending and investing. Emphasis is placed upon financial planning, budgeting, saving, home ownership, estate planning, and retirement.

Notes: This course is for non-business majors. This course will not count for business majors.

FIN 3100: Principles of Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (Grades of "B" or higher in (MATH 1160 or MATH 1190), ACCT 2100, ACCT 2200, ECON 2100, ECON 2200 and ECON 2300) or Admission to Coles College

Undergraduate Professional Program or completion of 60 credit hours with a minimum GPA of 2.0, ACCT 2100, ACCT 2200, ECON 2100, ECON 2200, (ECON 2300 or MATH 1107) and student in a Coles College Partner Program that includes this course.

An introductory course designed to develop knowledge of the basic concepts, principles, and functions of managerial finance. Topics include the time value of money, valuation of bonds and stocks, financial analysis, working capital management, capital budgeting, and capital structure strategies.

FIN 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: FIN 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. For sophomore, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

FIN 3398: Internship

1-12 Credit Hours

Prerequisite: FIN 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency. A research paper is required to receive credit. For junior or senior students who wish to participate in an on the job experience in which they may apply their academic education. The work experience may not be with a current employer. This course will be graded on an S/U basis.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

FIN 4220: Corporate Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Application of the principles and concepts of finance to the acquisition and management of corporate assets and financial resources, the management of the firm's capital structure, and development of dividend policy.

FIN 4260: Short Term Financial Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Focuses on the structure and functioning of payment systems, the management of short-term assets and short-term liabilities of the business firm, and the impact of computer and communications technologies on financial management systems.

FIN 4320: Fixed Income Securities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides students with knowledge of the fixed-income markets. The course will cover the pricing and risk management of fixed-income securities, and an introduction to fixed-income derivatives. It covers interest rate management, product fundamentals, and portfolio strategies. This course is a valuable preparation for students interested in taking the Chartered Financial Analysts (CFA) examination.

FIN 4360: Investments

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides students with working knowledge of equity securities and portfolio management with an emphasis on the fundamental trade-off between risk and return. The course covers securities markets, efficient diversification, asset pricing models, and investment strategies of individual and institutional investors. It also introduces students to bonds and financial derivative products.

FIN 4400: Directed Study

1-3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 3.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and Department Chair prior to registration.

Special topics of an advanced nature not in the regular course offerings.

FIN 4420: International Financial Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Investigates the implications for financial decision-making rules and policies that result from consideration of an international financial perspective.

FIN 4460: Financial Statement Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course focuses on financial statement users, their information needs, and how effective financial statement analysis addresses those needs. Students will be instructed in methods to assess the financial health and performance of a firm to make realistic valuations and sound financial decisions (e.g., as to investing, lending, liquidity, and risk) in light of industry and economic conditions.

FIN 4490: Special Topics in Finance

1-3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course, and approval of instructor and department chair prior to registration.

Selected special topics of interest to faculty and students. This course may be taken more than once.

FIN 4520: Financial Derivatives and Financial Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is designed to help students gain a thorough understanding of the roles of futures, options, and other financial derivatives in allocating risk; the design of financial derivatives; the valuation of financial derivatives; and their applications to financial risk management problems.

FIN 4560: Behavioral Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The tools and applications of behavioral finance are presented. Topics include expected utility, prospect theory and mental accounting; conventional finance and challenges to market efficiency; heuristics and biases, overconfidence and emotion; financial decision-making stemming from psychology; behavioral explanations of observed behavioral anomalies; aggregate stock market puzzles; and retirement and pensions.

FIN 4620: Financial Management of Financial Institutions

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Financial decision making concepts are applied to the particular financial management issues of financial institutions, including funds acquisition and management of operations and capital investments.

FIN 4660: Advanced Corporate Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 4220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides an in-depth coverage and quantitative analysis of the firm's decisions to raise capital publicly, privately, domestically, and globally. The course also covers restructurings of debt obligations (bond refunding, exchange and tender offers), and equity/asset restructurings.

Foreign Language

FL 100I: Introduction to Foreign Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

Introduction to a foreign language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of the culture being studied.

Notes: Not open to native speakers of the language.

FL 1002: Introduction to Foreign Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Introduction to foreign language and culture, part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of the culture being studied.

Notes: Not open to native speakers of the language.

FL 200I: Intermediate Foreign Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FL 1002 or permission of the instructor.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of the language.

FL 2002: Intermediate Foreign Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FL 200I or permission of the instructor.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

Notes: Not open to native speakers of the language.

FL 2209: World Languages and Cultures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Completion of all Learning Support English courses, if required

An overview of world languages and cultures and their manifestations in our society. Class discussions and readings are reinforced through supervised field experiences in the metro Atlanta area. In addition, students survey academic and professional career opportunities in fields that require linguistic skills and

cultural competence.

FL 3309: Survey of Chinese Literature and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course, is a survey of Chinese literature and culture, examining major works and literary and artistic movements as well as cultural issues. Readings and discussions are in English; some readings are in the original for Chinese language students.

Notes: FL 3309, cross-listed as ASIA 3309

FL 4400: Directed Study

1-3 Credit Hours

Prerequisite: FL 2002

Covers special topics external to course offerings in order to allow a student to work individually with an instructor.

FL 4490: Special Topics in Foreign Language

1-3 Credit Hours

Prerequisite: FL 2002 or permission of the instructor.

Selected topics of interest to faculty and students.

HEBR 1001: Introduction to Hebrew Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements if required.

This course introduces students to Hebrew language and Israeli culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Israeli culture. Not open to native speakers of Hebrew.

HEBR 1002: Introduction to Hebrew Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HEBR 1001 or permission of the instructor

Introduction to Hebrew Language and Culture II stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Israeli culture. Not open to native speakers of Hebrew.

HEBR 1050: Introduction to Biblical Hebrew

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements, if required.

This course introduces students to the ancient Hebrew language. It lays a solid foundation for reading and analyzing Biblical texts. Note: This course does not prepare students for the study of modern Hebrew, nor is it sequenced with other HEBR courses.

HEBR 2001: Intermediate Hebrew Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HEBR 1002

Students continue to develop proficiency in listening, speaking, reading, and writing and learn to communicate in culturally appropriate ways. Not open to native speakers of Hebrew.

HEBR 2002: Intermediate Hebrew Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HEBR 2001

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Not open to native speakers of Hebrew.

Foreign Language Education

FLED 4408: Second Language Acquisition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education Program or ASIA 3001 or permission of instructor.

This course examines theories of second language acquisition (SLA) and their practical application to second language teaching and learning. It addresses the theoretical foundations of working with second language learners. It focuses on the classroom applications of this theoretical base to interactions with language learners, curriculum, instruction, and assessment. Students interpret relevant SLA research that informs language teaching and takes ownership of SLA theories and research as a rationale for pedagogical decisions

FLED 4410: Methods, Materials, and Curriculum of Foreign Language Education, P-8

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: FLED 3303

This course is an overview of methods, materials and curriculum in foreign language instruction grades P-8. The field experience emphasizes principles of classroom and behavior management as well as ways to put theory into practice.

FLED 4412: Methods, Materials, and Curriculum of Foreign Language Education, 9-12

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: FLED 4408 and FLED 4410

Corequisite: FLED 4414

This course is an overview of methods, materials and curriculum in foreign language instruction grades 9-12. The field experience emphasizes principles of classroom and behavior management as well as ways to put theory into practice. Field experience is required. Proof of liability insurance is required for field experience.

FLED 4414: Technology for Foreign Language Teaching

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: FLED 4408 and FLED 4410

Corequisite: FLED 4412

This course introduces teacher candidates to the use of instructional technology in foreign language education. Specifically, teacher candidates learn to evaluate, design, create, and implement a variety of technology-enhanced teaching and learning materials. A particular focus is placed on forming the essential connections between Second Language Acquisition theories, sound pedagogical approaches, and cutting edge technologies to ensure that teacher candidates can integrate technology meaningfully into P-12 curriculum planning and teaching practices.

FLED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to Teacher Education, FLED 4408, FLED 4410, FLED 4412, FLED 4414, Issued Pre-Service Certificate, and Admission to Yearlong Clinical Experience

Corequisite: FLED 4651, EDUC 4610, and INED 3305

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in Foreign Language Education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

FLED 4651: FLED Seminar I

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: FLED 4408, FLED 4410, FLED 4412, FLED 4414, Pre-Service Certificate, and Admission to Yearlong Clinical Experience.

Corequisite: FLED 4650

This FLED Seminar I course corresponds to the FLED Yearlong Clinical Practice I course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing as well on the ethics and practice of culturally-responsive foreign language pedagogy and instruction.

FLED 4660: FLED Yearlong Clinical Experience II

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: FLED 4650, FLED 4651, and eligibility to take GACE

Corequisite: FLED 4661

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in foreign language education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment.

FLED 4661: FLED Seminar II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: FLED 4650 and FLED 4651

Corequisite: FLED 4660

This FLED Seminar II course corresponds to the FLED Yearlong Clinical Practice II course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing as well on the ethics and practice of culturally-responsive foreign language pedagogy and instruction.

FLED 4670: FLED Yearlong Clinical Internship I

0 Class Hours 20 Laboratory Hours 5 Credit Hours

Prerequisite: FLED 4410, FLED 4412, FLED 4408, FLED 4414, and FL 4400

Corequisite: FLED 4671

This course is the first semester of an intensive and extensive supervised, credit-earning yearlong clinical work experience in Foreign Language education for student in the Alternative Teacher Preparation program.

FLED 4671: FLED Internship Seminar I

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: FLED 4410, FLED 4412, FLED 4408, FLED 4414, FL 4400

Corequisite: FLED 4670

This FLED Internship Seminar I course corresponds to the FLED Yearlong Clinical Internship I course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing also on the ethics and practice of culturally-responsive foreign language pedagogy and instruction. This course provides candidates the opportunity to work under the guidance of the FLED instructor and engage in discussion of issues related to language teaching with the FLED ATP cohort.

FLED 4680: FLED Yearlong Clinical Internship II

0 Class Hours 16 Laboratory Hours 4 Credit Hours

Prerequisite: FLED 4670 and FLED 4671

Corequisite: FLED 4681

This course is the second semester of an intensive and extensive supervised, credit-earning yearlong clinical work experience in Foreign Language education for students in the Alternative Teacher Preparation program.

FLED 4681: FLED Internship Seminar II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: FLED 4670 and FLED 4671

Corequisite: FLED 4680

This FLED Internship Seminar II course corresponds to the FLED Yearlong Clinical Internship II course and is designed to support teaching candidates in successful completion of edTPA tasks and assessments, focusing also on the ethics and practice of culturally-responsive foreign language pedagogy and instruction. This course provides candidates the opportunity to work under the guidance of the FLED instructor and engage in discussion of issues related to language teaching with the FLED ATP cohort.

French

FREN 1001: Introduction to French Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites:

Completion of all Learning Support English courses, if required.

This course is an introduction to French language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of French and Francophone cultures.

Notes: Not open to native speakers of French.

FREN 1002: Introduction to French Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school French or FREN 1001 or the equivalent.

Introduction to French language and culture, "Part II," stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of French and Francophone cultures.

Notes: Not open to native speakers of French.

FREN 200I: Intermediate French Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school French or FREN 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of French.

FREN 2002: Intermediate French Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school French or FREN 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in French.

Notes: Not open to native speakers of French.

FREN 2003: Accelerated Intermediate French Language and Culture

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: Two years of high school French or FREN 1002

This accelerated intermediate level course in French language and culture covers in one semester the materials presented in FREN 2001 and FREN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of French and Francophone cultures.

FREN 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the department chair.

Covers special topics and study abroad courses external to course offerings at the intermediate level.

FREN 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 2002 or FREN 2003

This course emphasizes skill development and refinement in the areas of critical reading and writing in French. Designed to give students extensive experience in reading and writing in French, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

FREN 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 2002 or FREN 2003

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

FREN 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 2002 or FREN 2003

This course provides a general review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

FREN 3304: Literature and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3200 and FREN 3303

An introduction to French and Francophone literature and culture from the Middle Ages to 1820. Students examine literary and artistic movements as well as cultural issues of the period.

Notes: Readings and discussion in French.

FREN 3305: Literature and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3200 and FREN 3303

An introduction to French and Francophone literature and culture from 1820 to the present. Students examine literary and artistic movements as well as cultural issues of the period.

Notes: Readings and discussion in French.

FREN 3390: Upper-division Study Abroad in French

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or Senior status and permission of the department chair.

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of French. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

FREN 3398: Internship

1-9 Credit Hours

Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.

Supervised, credit-earning work experience of one semester requiring use of French in the work place.

Notes: Prior approval by department coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

FREN 4400: Directed Study

1-3 Credit Hours

Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor.

Notes: Requires prior approval by instructor and department chair.

FREN 4402: Contemporary Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3304 or FREN 3305

An examination of the historical, social, and political contexts of the contemporary French and Francophone experience through the analysis of cultural representations such as film, media, plastic arts, music, and literature.

Notes: Readings and discussion in French.

FREN 4404: Commercial French

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3302 and FREN 3303 or permission of the instructor.

An in-depth study of business practices and the language of business in the French-speaking world. This course will prepare students for the exam for the Certificat Pratique de Francais Commercial given by the Paris Chamber of Commerce.

FREN 4434: Topics in Language, Literature, and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3304 or FREN 3305

An exploration of a period, movement or genre in literature, a topic in culture, or language related issues. Topics are chosen for their significance and impact on French and Francophone cultures.

Notes: Course taught in French.

FREN 4456: Advanced Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3302 and FREN 3303

Advanced study of grammar from a linguistic perspective. Provides an overview of phonetics, phonology, morphology, and syntax. Exposes students to dialectical variations of the French-speaking world. Stresses development of oral proficiency.

Notes: Course taught in French.

FREN 4490: Special Topics in French

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3302 or permission of the instructor.

Special topics relevant to the study of French speaking societies.

FREN 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FREN 3304 and FREN 3305 and senior status.

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty.

Notes: Papers and presentation in French.

Gender and Women's Studies

GWST 1102: Love and Sex

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course examines the phenomena of love and sex from multi- and interdisciplinary perspectives in a global context. Students critically evaluate the personal and social significances of intimacy and analyze the ethical, political, and cultural dimensions of love and sex through a variety of media. Topics may include family, marriage and monogamy, sexual identity and orientation, reproductive politics, sex work, consent, and representation.

GWST 2000: Introduction to Gender and Women's Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of the foundational figures, themes, and texts in the history of gender and women's studies in an interdisciplinary and global context. Themes to be addressed include sameness vs. difference feminisms; the sex/gender distinction; internal and external critiques of Western feminisms; transnational and global feminisms; feminism's relationship to critical race studies, postcolonialism, queer theory; and gender, trans-gender, and masculinity studies.

Notes: All sections include a required supervised civic and community engagement project.

GWST 2050: Global Perspectives on Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course offers global perspectives and contexts within which gender can be explored, analyzed, and critiqued. The course will be driven by cross-cultural and comparative study and may include analysis of the construction of gender in relation to social practices, the law, tradition, religion, institutional culture, economics, and popular culture.

Notes: This course may be repeated for credit with prior approval.

GWST 3001: Feminist Theories

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Feminist Theories involves the study of concepts and ideologies that articulate and define theories of feminism through the intersections of gender with race, class, nationality, sexuality, and other social differences. Students will engage with several foundational and vibrantly contested conversations within feminist theory that draw from a variety of theoretical perspectives, including those influenced by liberalism, Marxism/socialism, psychoanalysis, radical feminism, post-modernism, and post-colonialism.

GWST 3010: Queer Theory & Sexuality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Queer Theory & Sexuality is an interdisciplinary course that considers the global emergence and significance of theories and practices that 1) refute and destabilize the notion of an essential, normative sexuality and gender and 2) suggest that sexuality is fluid and varied and is constructed by social, political, and economic factors. The course surveys a broad array of scholarship and other forms of print and non-print media and explores a range of topics that might broadly be identified as 1) practices, identities, and communities; 2) the cultural construction of gender and sexuality; 3) sexual citizenship and the nation-state.

GWST 3020: Black Feminisms

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

A survey of historical and contemporary black feminist traditions. Core themes could include the intersections of race and gender with class, sexuality, generation, and place; black feminist thought and its relationship to womanism and other feminisms; outsider-within positionality of black women; black feminist epistemologies; mediated representations of black women's identities; black lesbian feminism; commodification of black women's bodies; black women's global resistance to racism and sexism.

GWST 3030: Gender in Popular Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

An examination of gender as depicted in popular culture texts. Focusing on one medium (e.g., film, television, periodicals, music) or surveying a range of popular culture forms, students will critique depictions of gender; practice using theories and methods from gender and women's studies to understand popular culture's role in shaping gender identity; and do research on gender in the context of popular culture.

GWST 3060: Gender in the Workplace

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Gender and the Workplace examines work and professional-related gender issues from several perspectives, including the legal, sociological and economic viewpoints. Students will engage with a variety of relevant and timely topics that include gender stereotyping and discrimination, career development, diversity issues, sexual harassment, and work/life balance. As part of the course requirements, students will complete a civic/community engagement assignment relative to the course.

GWST 3070: Gender and Social Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course offers an interdisciplinary approach to the social and historical constitution of gender in a social justice framework. Students will explore a wide variety of critical and literary materials to analyze interlocking systems of hierarchy and domination; to evaluate gendered experience across local, regional, national, and global contexts; and to identify critical responses to systemic forms of oppression in the contemporary world.

GWST 3080: Masculinity Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Masculinities Studies is an interdisciplinary introduction to this growing and often contested field. Using a variety of texts, students explore historical, political, and theoretical development, as well as social and cultural constructions, of the category "masculinity." Students map central debates surrounding masculinity, including why it is frequently thought to be "in crisis." The course examines political and social movements related to masculinity as it considers masculinity in relation to other theories, including feminist, postcolonial, etc.

GWST 3090: Transnational Feminisms

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Transnational Feminisms is an interdisciplinary study of the economic, social, and political consequences

of the phenomenon known as globalization, particularly those consequences that affect issues of gender. As such, students analyze transnational feminisms, studying both the opportunities and challenges that are inherent in transnational feminist scholarship and activism. Through critical inquiry into a variety of texts, the course dynamically reconceptualizes relationships between women and nation; between gender and globalization; and between feminist theory and practice.

GWST 3100: Gender and the US South

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Gender and the U.S. South examines intersections between cultural norms and values of the southern United States with gender and related identity categories such as race, class, and sexuality. The course invites students to consider ways that gender, race, class, and sexuality are complicated by and related to regional ideas, history, and identity. Additionally, the course explores gender in the U.S. South in connection with other cultures in the Global South.

GWST 3398: Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GWST 3000 and approval of the internship coordinator.

A structured off-campus experience in a supervised setting that is chosen in relation to student's focus and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students will meet with the internship coordinator to develop an appropriate plan that will lead to the writing of a research-oriented paper or research project, a required part of the internship. Students should consult with the internship coordinator at the midpoint of the semester prior to the internship to choose from an approved list of internship sites, none of which may be with a current employer

GWST 4000: Research in Gender and Women's Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GWST 2000 and completion of 60 credit hours.

A study of research models of scholarship in gender and women's studies, combined with an opportunity for students to conduct a research project of their own. Students will read examples of outstanding research and survey discipline-based scholarship focusing on gender and women's studies. Topics for studying methods could include debates regarding different methodologies, critiques of traditional research methodologies, integrating feminist theory with scholarship, and ethical questions associated with producing research in gender and women's studies.

Notes: This course should be taken as the final course of the GWST minor.

GWST 4040: Major Topics & Figures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course offers an in-depth examination of a major topic or major figure relevant to the field of gender and women's studies. Students will learn how to conduct interdisciplinary research and employ

gender analysis through the advanced study of one major thinker or the advanced, comparative study of a set of thinkers grouped according to a major topic.

Notes: Specific content may vary, so course may be repeated.

GWST 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Another GWST course, approval of the instructor, and approval of the program coordinator.

The Directed Study is an advanced, individual study of a selected topic not offered in the regular curriculum. Students may conduct in-depth, gender-related research under the supervision of a faculty member. The directed study is student driven, and students are responsible for selecting the subject matter to be studied, method, data sources, and theoretical question(s), all under the direction of a faculty member.

GWST 4499: Senior Seminar in GWST

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GWST 2000 and completion of sixty credit hours.

This capstone course is designed to complete the major by integrating prior academic experiences in Gender and Women's Studies. Students research, write, and present a senior thesis that addresses the relationship between theory and practical experience. A seminar format is used throughout the course.

GWST 4998: GWST Certificate Colloquium

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Declaration of GWST certificate.

This course provides a capstone experience for students pursuing a GWST certificate. Students examine interdisciplinary perspectives on knowledge, engage in cultural and intellectual activities beyond the classroom, and participate in an online discussion forum.

Geographic Information Systems

GIS 3398: Internship

1-9 Credit Hours

Prerequisite: GEOG 4405 and permission of the GISc program director.

A structured off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of GISc faculty and the internship supervisor. Sites must be in advance of the semester of the internship and must be approved by the director of the GISc program.

Notes: Geography students seeking a B.A. in Geography need to take GEOG 3398.

GIS 4415: Practicum in Geographic Information Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 4405 and permission of the instructor.

This is a capstone course for the GIS Certificate Program and is designed to integrate students' prior training in geospatial theory, technologies and/or data analyses through the use of geographic information systems in on-site work settings. Student experiences are applied in nature and are on campus or with selected private or public organizations in the community. Students find and obtain their own practicums, which require the program director's approval.

Geography

GEOG 1101: Introduction to Human Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is a survey of global patterns of resources, population, culture, and economic systems. Emphasis is placed upon the factors contributing to these patterns and the distinctions between the technologically advanced and less advanced regions of the world.

GEOG 1102: Earth from Above

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This is a survey course for any student with an interest in geography, maps, or geospatial data and technologies. Students will obtain fundamental geographic principles of place and space, and learn introductory geospatial techniques such as map reading, coordinate systems, and scale by using global positioning satellite receivers, aerial photos, satellite imagery, and Google Earth technologies. The course is designed to give students hands-on experience to collect, manipulate, analyze, and understand geospatial data.

GEOG 1112: Weather and Climate

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course examines aspects of physical geography, specifically earth-sun relationships, atmospheric processes, climate and weather patterns, and vegetation patterns and principles. Emphasis is on the distribution and interactions among these environmental variables as well as the impact humans have had on these natural systems. The lab focuses on practical and applied aspects of these environmental systems. Lab work includes maps reading, data collection, and data analysis.

GEOG 1113: Introduction to Landforms

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course examines aspects of physical geography such as plate tectonics, rocks and soils, river systems, coastal systems, glaciers, and karst topography. Emphasis is on the evolution and distribution of these physical landforms and resultant landscapes, as well as the processes that have shaped them. The lab focuses on practical and applied aspects of landform patterns and processes. Lab work includes the use of topographic maps and aerial photographs, the identification of rocks and minerals, and the analysis of landscape features.

GEOG 1130: World Regional Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An introduction to world regions through the context of human geography. The course focuses on basic geographic concepts to analyze social, economic and political issues at local, regional and global scales. Elements of fundamental physical geography will be discussed to illustrate the spatial relationships between the physical environment and human geography.

GEOG 2200: Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ANTH 1102, or GEOG 1101, or GEOG 1130) and (GEOG 1112 or GEOG 1113) and GEOG 1102

This course is designed to prepare students for scientific research in the environmental field and related disciplines. It introduces students to a variety of spatial and environmental research concepts, approaches, methods and techniques. This course guides students through aspects of scientific research.

GEOG 3300: Urban Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

An analysis of the location and distribution of urban centers, urban land uses and the geographical aspects of general urban issues.

GEOG 3305: Introduction to Cartographic Processes

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107 and GEOG 1101

This course is an introduction to the processes and technology of cartography, the science and art of map making. The foundations of map construction and design will be presented from theoretical and applied perspectives. Students will be introduced to hands-on and computerized mapping, leading to a basic appreciation of the map as the integral component of geographic information systems data analysis. SSED majors this course will not count as an upper division GEOG requirement for your degree program.

GEOG 3310: Historical Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A global approach to the study of the geographic factors affecting historical events associated with the human exploration and settlement of the planet. The influence of geography on economic and political changes over time will be reviewed for selected historical phenomena.

GEOG 3312: Geography of Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A geographical survey of Europe and its environs, with emphasis on the tremendous diversity found in both the physical and human geography of the region. Economic, political and cultural geography are examined within the framework of the forces that are rapidly restructuring the landscapes of Eastern and Western Europe.

GEOG 3315: Introduction to Geographic Information Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 3305 or permission of the instructor.

Students will be introduced to the basic design of state-of-the-art GIS and its analytical capabilities. Topics include: Geodatabases, applications in GIS, map projection information, raster/vector data models, introduction to available data on the internet, and basic GIS analytical functions such as querying and overlaying. The course will use ArcGIS to introduce these concepts in a hands-on environment.

GEOG 3320: Political Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

This course is intended to explore the following concepts and issues from a geographical perspective: territoriality, theories of the state, spatial expressions of ideology, boundary issues, imperialism, geopolitics, nationalism, electoral geography, national identity, religion and governing power in a spatial context, and cultural and/or economic hegemony.

GEOG 3330: Economic Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A geographic analysis of global resources and economic growth. The underlying theme of the course is the impact of space (location, distance, area, boundaries) on economic decision-making. Topics to be discussed include population, transportation, rural and urban land use, industrial location, natural resource management, and development/underdevelopment. Differing spatial theories will be employed to explain the global economy in transition.

GEOG 3340: Cultural Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A thematic approach is applied to analyze human cultures, to examine world cultural regions, to note the spread of cultural traits, to interpret interactions between culture and environment, and to appreciate multiple traits of cultures and cultural landscapes. The five themes of region, diffusion, ecology, integration, and landscape are used to explore historical and contemporary issues of population, agriculture, politics, language, religion, ethnicity, popular culture, and urban spaces. The philosophy of the course is based on the premise that the built environment is a spatial expression of the beliefs, attitudes, and practices of a people.

GEOG 3350: Geography of Sub-Saharan Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A spatial survey that focuses on the physical, historical, cultural, and economic forces at work on the African continent, south of the Sahara. Special emphasis is placed on the roles of the natural environment, population geography, historical geography, agriculture, economic development, and other factors that shape the landscapes of Sub-Saharan Africa.

GEOG 3360: Geography of Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

This course is designed as a survey of the physical and cultural geography of the Asian region. Students will be provided with an overview of Asian landform features and climate coupled with a discussion of human interaction with a variety of Asian landscapes in terms of historical, political, economic, religious, and ethnic factors using geographic and cartographic analytical techniques.

GEOG 3370: Geography of Latin America and the Caribbean

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

This course studies the major physical, cultural and geopolitical sub-regions in Latin America and the Caribbean. In-depth geographic awareness and knowledge of the Latin American and Caribbean region is gained from the study of physical landscapes, natural hazards, economics, historical geography, environmental and resource issues, cultures and societies, urbanization, development, current events, and prospects for the future.

GEOG 3380: Geography of North America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

A geographical survey of North America emphasizing the significant diversity found in both the physical and human geography of the region. Past, current and changing locational arrangements of people and

resources are examined as they relate to economic, political, urban and cultural geographic perspectives within the framework of the forces that have created the variety of landscapes of the North American continent.

GEOG 3390: Geography of the Middle East and North Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1101 or GEOG 1130

This course is a spatial survey that focuses on the physical, historical, cultural, and economic forces at work in the Middle East & North Africa. Special emphasis is placed on the roles of the natural environment, demography, historical geography, agriculture, economic development, and other factors that shape the landscapes of this particular region.

GEOG 3398: Internship

1-9 Credit Hours

Prerequisite: GEOG 4405 for GIS internships, or at least 15 hours of upper division geography courses for non-GIS internships.

A structured off-campus experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of geography faculty and the internship supervisor. Those seeking experience in a GIS environment will work under the guidance of the GIS Program Director. Sites must be in advance of the semester of the internship and must be approved by the student's advisor or internship coordinator.

Notes: This course is for GEOG majors. GIS majors should register for GIS 3398 and GIS certificate students should register for GIS 4415. A departmental internship orientation session is scheduled once a semester.

GEOG 3700: Introduction to Environmental Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Any general education science lab sequence.

This course is designed to give students an overview of the human dimensions of US environmental issues and is a core course for the environmental studies minor. From a geographical perspective, the course explores how US environmental laws, ethics, viewpoints and economics interact, shape, and manifest themselves across the landscape. Students will be introduced to technologies, such as geographic information systems and satellite images, used by geographers to study environmental issues. The course will examine spatial patterns arising from the ways in which we manage our natural resources and environment. Natural resources such as water, air, soil, energy and fossil fuels will be used as examples in the discussion of spatial patterns arising from resource extraction, transportation and use.

GEOG 3710: Local & Global Sustainability

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 and 75 credit hours.

This course is a critical review of the concept of sustainability and sustainable development in theory

and practice. Students analyze ideological arguments, sustainability indicators and other tools, and case studies of sustainability projects worldwide. Students examine different interpretations of sustainability across the globe with special attention given to how sustainability is viewed and implemented in both the developed (core) and developing (periphery) regions.

GEOG 3800: Climatology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1112

This course examines the nature of Earth's climate and the physical processes that determine the variations in climate and weather worldwide. Emphasis is on the interactions among the atmosphere, the hydrologic cycle, and earth's surface. Aspects of climate change will also be addressed.

GEOG 3850: Global Climate Change

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1112

This course gives students an overview of Global Climate Change by bringing together science, impacts, abatement technologies, and policy solutions. From an interdisciplinary perspective with geographical emphasis, it leads students to examine the scientific basis, current scientific understanding, future projections, and impacts of climate change, uncertainties and debates on climate change, and technologies and policies to deal with climate change, through lecture presentations, group projects, readings, exams, and a research paper.

GEOG 3900: Biogeography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1112

This course examines the geographic distribution of plants and animals from historical, cultural, and ecological perspectives. Emphasis is on the local, regional, and global patterns and processes that have influenced the distribution and evolution of plant and animal species. Aspects of environmental change and conservation is also addressed.

GEOG 4100: Directed Applied Research

1-6 Credit Hours

Prerequisite: Any upper-division geography course; consent of instructor and chair.

This course will offer students an opportunity to investigate geographically-oriented concepts and issues by assisting in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

GEOG 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of advisor, instructor, major area committee and department chair prior to registration.

Covers special topics and seminars external to regular course offerings.

GEOG 4405: Advanced Geographic Information Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 3315

This course builds upon basic concepts addressed in the Introduction to Geographic Information Systems (GIS) course. The use of topological data procedures and relational database concepts within the GIS context will be investigated along with procedures relevant to building Geodatabases, including map projections, coordinate systems, digitizing vectors, and transformations. Fundamental spatial analysis operations are expanded upon, including spatial query, address matching, spatial aggregations, buffering, polygon overlay, and point-in polygon operations.

Notes: ArcGIS software is used in class.

GEOG 4410: Introduction to Remote Sensing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 4405 or permission of the instructor.

Remote sensing is the art and science of obtaining information about an object, area, or phenomenon by a device that is not in contact with the study subject. Remote sensing methods include the production and analyses of satellite imagery and aerial photography as well as basic digital image processing techniques. This course is an introduction to remote sensing from space and aircraft platforms and an introduction to digital photogrammetry.

GEOG 4490: Special Topics in Geography

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of interest to faculty and students.

GEOG 4499: Senior Seminar in Geography

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: At least 18 hours upper-division required geography courses, and permission of the instructor.

Required capstone course for all geography and GISc majors. This seminar helps students apply their geographic knowledge and skills culminating in a research project. The course also includes preparation for graduate study and job opportunities in geography.

GEOG 4500: Advanced Topics in Geospatial Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in GEOG 3315 or GEOG 4405 or GEOG 4410 , and permission of the instructor.

This course examines advanced topics in geospatial science that fit the needs and interests of students and faculty. Example topics include geospatial techniques in urban or environmental systems, advanced cartography, advanced remote sensing, ArcGIS server, geospatial databases, project management, and global positioning system applications. This course can be taken more than once as long as it is not

identical in content.

GEOG 4700: Geomorphology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GEOG 1112 or GEOG 1113

This course examines Earth surface processes and landforms, including tectonic, volcanic, hillslope, karst, fluvial, glacial, periglacial, eolian, and coastal geomorphic systems, as well as weathering and soils. Relationships between environmental change and the evolution of landscapes are addressed.

Geology

GEOL 1121K: Introductory Geosciences I

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 1111 or MATH 1112 or MATH 1113

This course introduces students to the study of Earth, and processes which modify it over time. The course provides an overview of plate tectonics, describes relationships between rocks and structures, examines the role of water in landscape evolution, and places an emphasis on the environmental applications of Earth processes. Lecture and lab familiarize students with the methodology and tools of the geologist, and emphasize the connections between the components of the Earth system.

German

GRMN 1001: Introduction to German Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Completion of all Learning Support English, if required.

Introduction to German language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of German culture.

Notes: Not open to native speakers of German.

GRMN 1002: Introduction to German Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school German, or GRMN 1001, or the equivalent.

Introduction to German language and culture, part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of German culture.

Notes: Not open to native speakers of German.

GRMN 2001: Intermediate German Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school German, or GRMN 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of German.

GRMN 2002: Intermediate German Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school German, or GRMN 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in the language.

Notes: Not open to native speakers of German.

GRMN 2003: Accelerated Intermediate German Language and Culture

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: Two years of high school German or GRMN 1002

This accelerated intermediate level course in German language and culture covers in one semester the materials presented in GRMN 2001 and GRMN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of German culture.

GRMN 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 or GRMN 2003

This course emphasizes skill development and refinement in the areas of critical reading and writing in German. Designed to give students extensive experience in reading and writing in German, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

Notes: This course is taught in German.

GRMN 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 or GRMN 2003

In this course, students learn to express themselves verbally, using role-play, skits and extemporaneous speaking on a variety of topics including basic situations as well as discussions of professional areas. This course is taught in German.

GRMN 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 or GRMN 2003

This course provides an introduction to the more difficult points of German grammar, syntax and style. In addition to the development of writing skills, students will concentrate on expanding their active vocabulary. This course is taught in German.

GRMN 3304: Literature and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 3200 or GRMN 3302 or GRMN 3303

An introduction to the literature and culture of Germany and German-speaking countries from the Middle Ages to 1848. Students examine literary and artistic movements as well as cultural issues of the period.

Notes: Readings and discussion in German.

GRMN 3305: Literature and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 3200 or GRMN 3302 or GRMN 3303

An introduction to the literature and culture of Germany and German-speaking countries from 1848 to the present. Students examine literary and artistic movements as well as cultural issues of the period.

Notes: This course is taught in German.

GRMN 3390: Upper-division Study Abroad in German

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 and permission of the department chair.

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of German. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

GRMN 3398: Internship

1-9 Credit Hours

Prerequisite: GRMN 3302 or permission of the instructor.

Supervised, credit-earning work experience of one semester requiring use of German in the work place.

Notes: Prior approval by department coordinator and internship supervisor is required.

GRMN 4400: Directed Study

1-3 Credit Hours

Prerequisite: GRMN 2002 or permission of the instructor.

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor.

Notes: Requires prior approval by instructor and department chair.

GRMN 4402: Contemporary Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 3304 or GRMN 3305 or permission of the instructor.

This course is an examination of the historical, social, and political contexts of the contemporary experience in the German-speaking world through the analysis of cultural representations such as film, media, plastic arts, music, and literature. Readings and discussions are in German.

GRMN 4404: Commercial German

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 or permission of the instructor.

An in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the German-speaking world.

Notes: This course is taught in German.

GRMN 4434: Topics in Language, Literature, and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 3304 or GRMN 3305 or permission of the instructor.

This course explores a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on German-speaking cultures. The course is taught in German.

GRMN 4456: Advanced Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 3303 or permission of the instructor.

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectical variations of the German-speaking world and stresses development of oral proficiency. The course is taught in German.

GRMN 4490: Special Topics in German

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: GRMN 2002 or permission of the instructor.

Selected topics of interest to students and faculty.

GRMN 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Senior status and permission of the instructor.

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty. Papers and presentations are in German.

Health and Physical Education

HPE 1030: Aerobic Conditioning/Weight Training

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in a variety of cardiovascular fitness related activities and weight training principles.

HPE 1055: Archery

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in the sport of archery.

HPE 1060: Beginning Badminton

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of badminton.

HPE 1075: Beginning Basketball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for

successful participation in the sport of basketball.

HPE 1076: Intermediate Basketball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: successful completion of Learning Support or concurrent registration, if required Prerequisite: HPE 1075, or instructor permission

This course is designed to reinforce fundamental basketball skills and introduces advanced offensive and defensive tactics as well as strategies commonly employed in the sport of basketball.

HPE 1080: Beginning Softball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of slow pitch co-ed softball.

HPE 1090: Dance: Ballet

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in classical ballet dance.

HPE 1130: Dance: Jazz

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in basic jazz dance.

HPE 1140: Educational Dance and Gymnastics

2 Class Hours 2 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required Prerequisite: HPE Majors only

This course focuses on the knowledge, motor skills, and fundamental techniques of international folk and social dance forms, creative movement and rhythmic activities, and educational gymnastic skills.

HPE I 150: Dance: Modern

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in basic modern dance.

HPE I 160: Rhythmic Activities for Children (P-5)

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Rhythmic and movement concepts used in expressive movement and as a foundation for motor skills included. Strategies for teaching creative movement will be addressed. Field experience with young children included.

HPE I 170: Folk/Square/Social Dance

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques, and knowledge appropriate for participation in folk, square, and social dance. Will include selected folk dances representing different cultures around the world. Circle, contra, and western style square dance will be emphasized. Social dances shall include Fox Trot, Waltz, Swing, and various Latin dances.

HPE I 185: Beginning Soccer

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of team soccer.

HPE I 195: Intermediate Soccer

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in intermediate soccer.

HPE 1210: Golf

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in golf.

Notes: Additional fee required.

HPE 1220: Beginning Cycling

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course provides an overview of bicycling as a fitness and recreational activity. Basic cycling techniques, safety, training, fitness principles, and equipment maintenance are among the major focal points of the course.

HPE 1230: Martial Arts

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in the development of martial arts and self defense skills.

Notes: Additional fee required.

HPE 1235: Intermediate Martial Arts

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Prerequisite: HPE 1230

This course focuses on motor skill development, techniques, and knowledge appropriate for participation in advanced martial arts and self-defense.

HPE 1240: Beginning Mountain Biking

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course provides an overview of mountain biking as a fitness and recreational activity. This course focuses on basic mountain biking techniques, safety, training, fitness principles, and equipment maintenance.

HPE 1250: Outdoor Recreational Pursuits

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE 1310 or permission of the instructor.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation and appreciation of outdoor recreation activities. Units represented may include backpacking, camping, orienteering and canoeing. Weekend trips, off campus field experiences and additional fee required.

HPE 1260: Beginning Team Handball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of team handball.

HPE 1270: Ultimate Frisbee and Disc Golf

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in popular flying disc sports, including ultimate Frisbee and disc golf.

HPE 1280: Beginning Rock Climbing

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in rock climbing.

HPE 1285: Intermediate Rock Climbing

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Prerequisite: HPE 1280

This course develops the skills of experienced climbers, fostering their abilities to enter both the competitive indoor and outdoor climbing environments.

HPE I290: Stunts & Tumbling/Gymnastics

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in the development of stunts, tumbling and gymnastic skills.

Notes: Additional fee required.

HPE I310: Swimming: Beginning

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites:

Successful completion of Learning Support or concurrent registration, if required. Motor skill acquisition, fundamental techniques and knowledge appropriate for the successful completion of the American Red Cross Beginning through Intermediate swimming levels. Course is designed for the non-swimmer or individual with limited aquatic experience.

HPE I330: Swimming: Intermediate

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE I310 or permission of the instructor

Motor skill acquisition, fundamental techniques and knowledge appropriate for swimming and water safety. Successful completion of this course corresponds to standards for the American Red Cross Swimmer level.

HPE I350: Swimming: Lifeguard Training

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE I330 or permission of the instructor

Motor skill acquisition, fundamental techniques and knowledge appropriate to become certified in American Red Cross Lifeguard Training.

HPE I390: Beginning Tennis

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required

This course is designed to introduce tennis to the student at the beginning level, encompassing basic skills, rules, terminology, basic strategy, and safety through drills and game play.

HPE I 395: Intermediate Tennis

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course is designed to reinforce fundamental tennis skills and introduces advanced offensive and defensive skills. The focus of the course will be on developing successful singles and doubles game-play strategies.

HPE I 430: Beginning Volleyball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course is designed to introduce volleyball to the student at the beginning level, encompassing basic skills, rules, terminology, basic strategy, and safety through drills and game play.

HPE I 435: Intermediate Volleyball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course is designed to reinforce fundamental volleyball skills and introduces advanced tactics, strategies and offensive/defensive systems.

HPE I 450: Scuba Diving

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE 1310 or permission of the instructor

This course is designed to develop fundamental concepts, principles, and techniques of sport SCUBA diving. Course covers selection and maintenance of gear, snorkeling skills, physiology of diving, use of dive tables, diving environment, and an emphasis on safe diving practices. PADI open water certification available but not required to fulfill HPE credit.

Notes: Additional fee and mask, fins, and snorkel required.

HPE I 470: Self Defense

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course develops self defense tactics and the knowledge of personal safety. Topics may include but are not limited to hand and leg strikes, various escapes and releases, safety in the car and home, sexual harassment, date rape, self defense and the law, and sexual abuse of children.

HPE I480: Beginning Yoga

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course addresses basic principles, philosophies, and practices of yoga. The class will include basic anatomy principles, terminology, strength, flexibility, and balance activities to develop an individualized yoga program.

HPE I485: Intermediate Yoga

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE I480 or instructor approval

This course addresses intermediate and advanced asanas, philosophies, and practices of yoga. The class will also include advanced conditioning movements.

HPE I490: Beginning Pilates

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course addresses basic principles, philosophies, and practices of Pilates. The class will include basic anatomy principles, terminology, alignment, strength, and flexibility exercises to develop an individualized Pilates program.

HPE I500: Beginning Sand Volleyball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and strategic knowledge necessary for successful participation in the sport of sand volleyball.

HPE I505: Intermediate Sand Volleyball

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE I500 or permission of instructor

This course reviews basic motor skills necessary for successful participation in sand volleyball, as well providing a primer for advanced motor skills, tactics, and strategies for students striving to play the sport at a higher or tournament level.

HPE 1510: Fitness Swimming

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE 1310 or permission of the instructor

This course provides opportunities for students with good swim skills to increase their fitness level via the medium of water. Workouts will be comprised of drills designed to increase stroke efficiency as they improve aerobic capacity, body composition, and muscular endurance. This is a vital opportunity for those students with physical limitations that prohibit typical land based exercise.

HPE 1520: Beginning Ice Skating

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in the sport of ice skating.

HPE 1525: Intermediate Figure Skating

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE 1520 or instructor approval

This course focuses upon motor skill development, techniques, and knowledge for more advanced level figure skating skills as turns, spins, and jumps

HPE 1530: Water Aerobics

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course is comprised of aerobic exercises and muscular strength/endurance exercises performed in the water. These exercises will focus on increasing mobility, cardiovascular fitness, muscle tone, and improving body composition. This is a vital opportunity for students with physical limitations prohibiting typical land based exercise.

Notes: No aquatic proficiency required.

HPE 1540: Indoor Soccer/Futsal

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in indoor soccer and Futsal.

HPE 1560: Introduction to Invasion Target Game Forms

2 Class Hours 2 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE majors only.

This course provides the foundational framework for motor skill and tactical knowledge acquisition of invasion target game forms. The common strategies, tactics, and skills are applied across a variety of activities.

HPE 1570: Walk/Jog for Fitness

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Motor skill acquisition, fundamental techniques, and knowledge appropriate for the successful participation in walking/jogging cardiovascular fitness activities. Nutritional principles for lifetime health will also be discussed.

HPE 1580: Introduction to Striking/Fielding and Net/Wall Game Forms

2 Class Hours 2 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE majors only.

This course provides the foundational framework for motor skill and tactical knowledge acquisition of striking/fielding and net/wall game forms. The common strategies, tactics, and skills are applied across a variety of activities.

HPE 1590: Beginning Lacrosse

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques, decision-making strategies, and knowledge necessary for successful participation in the sport of lacrosse.

HPE 1610: Beginning Racquetball

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course is designed to introduce racquetball to the student at the beginning level, encompassing basic skills, rules, terminology, strategy, and safety through drills and game play.

HPE 1700: Beginning Table Tennis

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course focuses on motor skill acquisition, fundamental techniques and knowledge appropriate for the successful participation in table tennis.

HPE 1710: Beginning Wakeboarding

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, techniques, terminology, and safety considerations for successful participation in the sport of Wakeboarding.

HPE 1810: Outdoor Recreation and Education

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE majors only.

Fundamental techniques and leadership skills necessary for safe participation in a variety of land and water outdoor recreational and educational activities without disturbance to the environment. Activities may include backpacking, camping, orienteering, canoeing, basic survival and problem solving adventure activities.

Notes: Additional fee required.

HPE 1830: Swimming: Water Safety Instructor

1 Class Hours 2 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE 1330 or permission of the instructor

Fundamental techniques, knowledge and methods appropriate to become certified to teach all levels in the American Red Cross swimming programs.

HPE 1850: Advanced Strength and Aerobic Training

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces advanced strength and aerobic training for health-related fitness and enhanced sport performance.

HPE 1870: Beginning Fencing

1 Class Hours 1 Laboratory Hours 1 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

This course introduces the motor skills, fundamental techniques and knowledge appropriate for the successful participation in the sport of fencing.

HPE 1900: Adventure Education and Facilitation

2 Class Hours 2 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: HPE Majors only

This course provides fundamental techniques and knowledge appropriate for the successful participation in adventure education and outdoor recreation activities. Students will learn skills needed to develop and facilitate experiential programs including team-building initiatives, problem-solving activities, and Challenge course elements.

HPE 2000: Contemporary and Historical Perspectives of Health and Physical Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An overview of contemporary and historical perspectives of health and physical education. Emphasis is on providing discussion of career options, major programs of study and professional opportunities in the areas of health and physical education as well as a survey and study of the historical and philosophical principles relative to physical education from a world and U.S. perspective. HPE majors should take this course prior to all 2000-4000 level major courses.

HPE 2050: Fundamentals of Teaching Health and Physical Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course introduces the fundamental knowledge and skills for effective health and physical education instruction. Students will develop initial competencies in lesson planning, pedagogical content development, differentiation strategies, instructional technology, and behavior management in classroom and movement settings.

HPE 2140: Youth Fitness Development and Assessment

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course is designed to provide students with knowledge and skills necessary to assist children and youth in the development of health and skill-related fitness. Students will be introduced to current models of fitness instruction and systematic data collection and evaluation techniques.

HPE 2250: Functional Anatomy and Physiology for Health and Physical Education

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SCI 1101 or CHEM 1211, HPE (P-12) or PHE Major.

This course is an examination of the structure and function of the major body systems, with emphasis on the muscular, skeletal, and cardiorespiratory systems role in human movement and physical activity.

HPE 2290: Special Topics

1-3 Class Hours 1-3 Credit Hours

This lower-division special topics course focuses on selected physical activity topics not regularly offered through the Department of HPE.

HPE 2300: First Aid/CPR Instructor Training

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Theory, practice, and application for safety, injury prevention, and care to include the American Red Cross Pediatric & Adult First Aid/CPR/AED. Teaching methodologies are also needed to prepare professionals to teach Pediatric & Adult First Aid/CPR/AED (Instructor Level Certification) to the layperson. Topics may include but are not limited to: personal, school, home, recreation, traffic, work site, and disaster safety.

HPE 3050: Coaching Principles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Basic understanding of the theoretical and practical applications of the sport science areas of physical education related to coaching. Current issues and topics addressing the principles and problems of the prospective interscholastic coach including coaching philosophy, pedagogy, sport psychology, sport medicine and sport physiology. Students successfully completing the course may become certified as a Leader Level Coach by the American Coaches Effectiveness Program.

HPE 3055: Advanced Coaching Methods for Basketball

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

In this course students will examine the theories and techniques of coaching basketball. The course content may include, but is not limited to, key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

HPE 3065: Advanced Coaching Methods for Soccer

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

In this course students will examine theories and techniques of coaching soccer. The course content may include, but is not limited to, key coaching topics such as: teaching and evaluating technical and tactical

skills, player selection for various positions; practice and season planning; offensive and defensive systems of play, game coaching considerations, and conditioning principles.

HPE 3075: Advanced Coaching Methods for Softball

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

In this course students will examine the theories and techniques of coaching softball. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

HPE 3085: Advanced Coaching Methods for Tennis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

In this course students will examine the theories and techniques of coaching tennis. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection and development, practice and season planning, singles styles of play, doubles styles of play, game coaching considerations, and conditioning principles.

HPE 3090: Advanced Coaching Methods for Strength and Conditioning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

Students will learn to apply practical and scientific foundations of muscular development, metabolic training concepts and program design for youth and adolescent sports. Course content is intended to guide middle and high school coaches in the implementation of a scientific based approach in the prescription of periodization as it applies to resistance training and anaerobic conditioning specific to adolescence.

HPE 3095: Advanced Coaching Methods for Volleyball

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

In this course students will examine the theories and techniques of coaching both indoor and sand volleyball. The course content may include, but is not limited to, various key coaching topics such as: teaching and evaluating technical and tactical skills, player selection for various positions, practice and season planning, offensive and defensive systems of play, game coaching considerations, and conditioning principles.

HPE 3100: Behavioral and Psychological Aspects of Physical Education and Coaching

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is an examination of behavioral and psychological factors affecting performance in physical

education, physical activity, and sports. Emphasis on the impact on performance and the teaching/learning process. Topics will include leadership, motivation, group cohesion, social facilitation, arousal/anxiety, cognitive processes, competition, cooperation, and performance enhancement.

HPE 3200: Motor Learning and Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course addresses current theories and principles of motor learning and motor development. Topics include individual differences in motor abilities, information processing, sensory contributions to skilled performance, principles of motor control, and fundamental locomotor skills/movements from a developmental perspective.

HPE 3250: Family Health and Sexuality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course focuses on the historical, sociological, physiological, and educational perspectives of family living and human sexuality.

HPE 3300: Contemporary Health Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course examines the physical, psychological, and social health factors related to personal wellness and contemporary health issues.

HPE 3395: Coaching Practicum

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3050

A senior-level coaching experience designed for candidates in the Coaching minor program of study. Candidates will be assigned as intern (assistant) coaches who will work under the supervision of experienced head or senior coaches at the collegiate, school (only if enrolled in the HPE curriculum), or recreation program levels. This is a field based practicum that will provide candidates with practical experiences in planning and implementing competitive athletic programs.

HPE 3398: Advanced Internship

1-12 Class Hours 1-12 Credit Hours

Prerequisite: Permission of the department chair.

A supervised, credit-earning experience of one academic semester with a previously approved business firm, sport organization, private agency or governmental agency.

HPE 3450: Curriculum, Instruction & Management for Early Childhood Physical Education

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to teacher education program.

Corequisite: HPE 4410

This course addresses the knowledge, fundamental techniques and motor skill analysis appropriate for the development of children's games, dance and gymnastics. The focus of this course is on curriculum development, methods and materials for planning and implementing a total developmental program for elementary physical education. Includes teaching experiences and appropriate computer software usage.

Notes: Verification of liability insurance is required prior to placement in the field experience.

HPE 3550: Curriculum, Instruction and Management for Middle Grade and Secondary Physical Education

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3450

Corequisite: HPE 4430

Curriculum development, methods and materials for planning and implementing a total developmental program for middle and secondary grade physical education. Includes teaching experiences and appropriate computer software usage.

HPE 3600: Child and Adolescent Health Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course examines major public and school-related health issues and programs impacting children and youth.

HPE 3650: Curriculum, Methods and Materials in Health Education

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 3450

Corequisite: HPE 4430

Curriculum development and instructional analysis for the planning and implementation of comprehensive health education programs for grades P-12. Includes experiences in school-community health services, teaching experiences, directed field observations and appropriate computer software usage.

Notes: Verification of liability insurance is required prior to placement in the field experience.

HPE 3670: Early Childhood Health and Physical Education for the Classroom Teacher

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to Teacher Education

The study of health education and movement experiences for early childhood school children as part of the Coordinated School Health program. Planning, teaching, and evaluating developmental programs in the elementary classroom. Emphasis will be placed upon integrated experiences.

HPE 3750: Adapted Physical Education

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education

Corequisite: HPE 3450

Characteristics and abilities of individuals with disabilities and effect on the performance of the individuals. Methods for assessing abilities, modifying and developing suitable physical education programs for schools and activity centers. Particular attention is given to the implications of current legislation affecting individuals with disabilities. Includes practical experience in an adapted program.

HPE 4000: Service Learning in HPE

1-3 Class Hours 1-3 Credit Hours

Prerequisite: 60 semester hours and permission of the instructor and chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth and civil responsibility. Activity will be designed with the instructor and approved by the chair/program directors.

HPE 4250: Measurement and Evaluation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107, admission to program, and HPE 3450 or HPE 3550. Corequisite: HPE 4430 or HPE 4410.

An overview of the purposes and forms of assessments used in P-12 health and physical education programs. Emphasis includes the study of authentic assessments as opportunities for student learning as well as instructional tools for effective teaching. Topics include assess knowledge and skill acquisition, gathering, reporting and interpreting assessment results, validity and reliability of assessment instruments, and test administration.

HPE 4252: Measurement and Evaluation in HPE

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107

Corequisite: HPE 4650

An overview of the purposes and forms of assessments used in P-12 health and physical education programs. Emphasis includes the study of authentic assessments as opportunities for student learning

as well as instructional tools for effective teaching. Topics include assessments of knowledge and skill acquisition, gathering, reporting and interpreting assessment results, validity and reliability of assessment instruments, and test administration.

HPE 4340: Applied Kinesiology

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: HPE 2250

This course examines the principles of biomechanics and exercise physiology as they relate to the motor performance and physical fitness levels of children and youth. The course will focus on the application of concepts to development of P-12 Health and Physical Education programs.

HPE 4410: Practicum in Children's Health and Physical Education

1 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to Teacher Education

Corequisite: HPE 3450

Field based practicum in the early grade public schools designed to provide students with practical experiences in planning and implementing health and physical education instruction in grades P-5. Verification of liability insurance is required prior to placement in the field experience.

HPE 4430: Practicum in Middle and Secondary School Health and Physical Education

1 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: HPE 4410

Corequisite: HPE 3550 and HPE 3650

A field based practicum in both the middle and secondary public schools designed to provide students with practical experiences in planning and implementing school health and physical education instruction in grades 6-12. Verification of liability insurance is required prior to placement in the field experience.

HPE 4490: Special Topics in HPE

1-3 Class Hours 1-3 Credit Hours

This upper-division course focuses on selected research topics of interest to the faculty not regularly offered by the Department of HPE.

HPE 4650: Yearlong Clinical Experience I

0 Class Hours 12 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to Teacher Education, Issued Pre-service Certificate, Admission to Yearlong Clinical Experience

Corequisite: EDUC 4610 and HPE 4252

This course is the first semester of an intensive and extensive co-teaching yearlong clinical practice in Health and Physical Education. Under the guidance of a collaborating teacher and university supervisor

and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars.

HPE 4660: Yearlong Clinical Experience II

0 Class Hours 36 Laboratory Hours 9 Credit Hours

Prerequisite: HPE 4650, Educator Ethics Assessment 360 Eligibility, GACE Eligibility

This course is the second semester of an intensive and extensive co-teaching yearlong clinical practice in Health and Physical Education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment.

HPE 4850: Student Teaching in Health and Physical Education (P-12)

1 Class Hours 33 Laboratory Hours 12 Credit Hours

Prerequisite: Admission to HPE student teaching.

Full-time teaching experience under the supervision of a public school supervising teacher and a college supervisor. SIU grading only. Verification of liability insurance is required prior to placement in the field experience.

PHE 2100: Introduction to Public Health Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course provides an introduction to the Public Health Education discipline with a focus on historical, current, and future significance of public health education, key principles and terminology, philosophical and research foundations, writing and presentation skills, prominent public health officials and agencies, overview of various public health professions and institutions, ethical issues within the profession, professional roles and responsibilities, the public health education marketplace and core Public Health disciplines.

PHE 2400: Behavior Theory and Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000, Public Health Education Minor or Major

This course will provide a theoretical foundation for public health education practice. Topics include behavior theories, determinants and influences of health behaviors, and the use of behavior theories in guiding public health education practice.

PHE 2900: Peer Health Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course introduces students to health promotion programming specific to planning, implementation, and evaluation of peer-to-peer health education. Emphasis is placed on educating students on current health topics and teaching strategies for effective peer health education. Students will be eligible to receive a national peer health education certification through The BACCHUS Network.

PHE 3330: Health Systems & Health Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000 or Permission of the Instructor

This course integrates health policy with public health systems in the United States in order to examine the impact on the health of Americans and priority populations. A comprehensive comparison of American health systems to those of other countries and the availability and delivery of health services and impact on health will be included.

Notes: This course is crosslisted with NURS 3330

PHE 3400: Disease Prevention and Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HPE 2250

This course provides an overview of human diseases, including causes/risk factors, signs and symptoms, diagnosis, treatment, and prevention. Emphasis will be placed on the role of public health education specialists in prevention and management of diseases that are the leading causes of premature disability and death domestically and globally.

PHE 3850: Fundamentals of Program Planning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHE 2400

This course introduces the fundamentals of health promotion and program development in community, work site, and clinical settings. Emphasis will be placed on the knowledge and skills necessary to plan a public health education program.

PHE 4200: Introduction to Community and Worksite Health

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHE 2400

This course examines various community and worksite health issues. Topics include community organization, health issues of diverse populations and demographics, global and national health issues, minority health, health care and the U.S. health care system, and occupational and community safety and health.

PHE 4300: Environmental Health Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This course will examine issues associated with environmental factors and conditions and their impact on the health of individuals and communities. Topics will include environmental epidemiology, toxicology, policy, and regulation, as well as environmental agents of disease and the implementation of environmental interventions to improve public health and safety.

PHE 4350: Methods of Public Health Education Research

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3125

This course offers a comprehensive introduction to the research process including the development and exploration of a single research question using empirical data, elements of the research process within quantitative, qualitative, and mixed methods approaches, and the submission and review process of a research manuscript.

PHE 4490: Special Topics in Public Health Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000

This upper-division course focuses on current and pertinent topics and content specific to the public health education discipline not regularly offered through the HPE Department.

PHE 4500: Epidemiology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107, PHE Minor or Major.

This course introduces the principles, concepts, and methods of epidemiology to examine a full range of disease occurrence, including genetic, environmental and social causes of both infectious and non-infectious diseases. Epidemiological techniques to promote health and wellness and to prevent and control disease will be emphasized.

PHE 4600: Program Implementation and Evaluation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHE 3850

This course builds upon PHE 3850 Fundamentals of Program Planning course and guides students in the implementation and evaluation of a public health education program in a community-based setting.

PHE 4650: Health Coaching and Patient Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHE 3400 and PHE 3850

This course integrates health coaching and patient education concepts and principles applicable to the

current healthcare system. Topics include behavior change theories, motivational interviewing techniques, individual and group coaching strategies, population based health, survey of medical issues and health information, and patient empowerment.

PHE 4700: Advanced Internship

1-6 Class Hours 0 Laboratory Hours 1-6 Credit Hours

Prerequisite: Completion of PHE Minor Core with a C or higher, Adjusted GPA of 2.5, approval of the internship coordinator and/or program coordinator

The Public Health Education Minor Advanced Internship is designed to be the culminating capstone academic experience for students completing the core course requirements in the Public Health Education Minor Program. It is designed as a senior-level credit-earning experience of 1-6 credit hours at an approved public health education internship site. Students work under the direct supervision of public health professionals and a university supervisor.

PHE 4750: Public Health Education Seminar and Internship

12 Class Hours 0 Laboratory Hours 12 Credit Hours

Prerequisite: Completion of all PHE program courses.

This course is the capstone experience for students completing the program requirements for the Bachelor of Science in Public Health Education. Course topics include public health education trends, certifications, professional ethics, liability, marketplace needs, and employment strategies. Students will work under the direct supervision of public health education professionals and a university supervisor. The course will also include regularly scheduled professional development seminars on campus.

WELL 1000: Foundations for Healthy Living

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of Learning Support or concurrent registration, if required.

This course is designed to examine priority health issues impacting KSU students through a focus on health promotion and disease prevention. Emphasis is placed on achieving and maintaining healthy lifestyles by developing effective strategies to adapt to changing personal and environmental factors. Topics of exploration include physical activity, nutrition, weight management, stress, emotional health, and behaviors that contribute to the leading causes of death and disabilities in the United States.

History

HIST 1100: Introduction to World History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements

An overview of world history that provides an introduction to the origin and development of the world's societies and their political, cultural, and economic traditions.

Notes: The course uses a global approach to world history

HIST 1111: Pre-Modern World History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English and Mathematics Learning Support, if required.

This course is a survey of world history to early modern times. The course examines the political, economic, social, and cultural history of the world with a focus on connections and interactions.

HIST 1112: Modern World History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is a survey of world history from early modern times to the present. The course examines themes, events, trends, institutions, and ideas with a focus on global connections and interactions.

HIST 2111: United States History to 1877

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course explores major themes in the social, cultural, political, and economic history of the peoples of North America to 1877. Topics include the intersections of cultures in colonial America, the origin and development of the American republic, the evolution of democratic ideas and institutions, western expansion, slavery, sectional conflict, and emancipation and its aftermath.

HIST 2112: United States History Since 1877

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course examines the major themes in the social, cultural, political, and economic history of the United States since 1877, the multicultural nature of contemporary U.S. civilization, and the nation's role in the global arena.

HIST 2206: Origins of Great Traditions

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, HIST 1111, or HIST 1112

This course is a systematic examination of five centers of civilization in Afro-Eurasia during their defining moments. The course focuses on the historical contexts that gave rise to China's classical philosophies, India's transcendental world-view, the Judaeo-Christian-Islamic synthesis, African mythoreligious systems of thought, and Latin-European culture in the West. The course's content emphasizes cross-cultural influences and connections.

HIST 2270: Introduction to Themes in History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1110, HIST 2111, and HIST 2112.

The content of the course will focus on a particular historical theme, topic, or period. The theme or period will vary from section to section of the course. This reading-, writing-, and exercise-intensive course surveys basic methods and concepts relevant to the discipline of history. Students will regularly engage in the close reading of scholarly historical work, learn and practice a variety of research methods, analyze historical sources, and develop analytical papers.

HIST 3100: Historical Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112) and ENGL 1102

This course introduces students to historical inquiry as a conversation about the past. It surveys methods, concepts, and frameworks relevant to the discipline. Students engage in the close reading of scholarly historical work, learn and practice a variety of research methods, and analyze historical sources. Students cultivate good scholarly practices and habits of mind that will benefit them in future courses. Students should take this course during the second semester of the sophomore year.

HIST 3271: Introduction to History Education

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Prerequisite: Approval of Program Coordinator; HIST 1111, HIST 1112, HIST 2111, HIST 2112, and EDUC 2110

Concurrent: EDUC 2130, HIST 3304

This reading and writing intensive course introduces fundamental approaches, methods, and concepts relevant to the discipline of history, historical thinking, and teaching American history. Teacher candidates engage in reading and analyzing scholarly works, learn and practice basic research methods, examine contemporary debates and developments in history and history education, contextualize and plan lessons that engage secondary students in studying history, and complete a school-based internship. Course content focuses on a particular historical theme or period.

HIST 3304: History of Georgia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

A consideration of Georgia's political, economic, social, and cultural development from the colonial period to the present. Topics include the cultures of indigenous peoples, the Spanish in Georgia, the founding of a British colony, the Revolution, Indian removal, antebellum society, the Civil War, Reconstruction, the New South era, the rise and decline of the cotton economy, race relations, and post-World War II prosperity and problems.

HIST 3305: The World Since 1945

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, HIST 1111 or HIST 1112

A survey of major themes in world history since 1945, this course focuses on sociocultural and intellectual developments in addition to the traditional concerns with political and economic relations. Particular emphasis is given to great power relations, the role of the middle powers, and North-South relations as well as the interactions between Western and non-Western cultures in the context of increasing globalization.

HIST 3310: The Old South

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course will be an exploration of the American South from the colonial period to the end of the Civil War. While major political and economic events will be an important part of the course, such events grow out of the ordeals of ordinary people. Therefore, close attention will be paid to the experiences of men and women – white, black, and Native American – from all social classes whose lives created a unique society known as the Old South.

HIST 3311: The New South

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

The South's social, political, and economic development from 1865. Emphasizes Reconstruction, the "New South Creed," race relations, industrialization, and the region's changing role in national affairs.

HIST 3325: Introduction to Public History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

The course exposes students to how Americans think about the past, as well as its commemoration and public presentation. Special focus will be placed on the ways in which historians transfer their writing, research, and analytical skills to professions outside of academia. Major subfields and professions within public history are examined as are the current issues and controversies within the field.

HIST 3326: Historic Preservation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Examines the history, theories, and methods of historic preservation. Students are exposed to such activities as renovation approaches for historic architecture, neighborhood and downtown revitalization, and heritage tourism, as well as the social and ethical issues swirling around preservation. Students are also introduced to the "tools" of preservation, including tax incentives, historic inventories, HABS/HAER, the National Register of Historic Places, and the National Trust's Teaching with Historic Places.

HIST 3327: Architectural History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112)

The course introduces students to vernacular and high-style architecture and its relationship to social, political, and economic forces. The focus will be on the forms, spaces, and stylistic traits of historic architecture, how architecture has evolved through the years, how technological evolutions and innovations have influenced architecture, and what the built environment reveals about public and private life. The geographic focus of the course can change, depending upon the instructor and the needs of the department.

HIST 3328: Introduction to Archives and Records Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111, or HIST 1112, or HIST 2111 or HIST 2112

This course introduces the student to the archival and records management professions, principles, practices, and legal/ethical challenges. In addition, students hands-on experience working with sample collections and original materials.

HIST 3331: History of Religion in the U.S.

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

A survey of religious history in the United States, with special emphasis on beliefs and institutions and their social and cultural context.

HIST 3333: African American History to 1865

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100 and HIST 2112

A history of the people of African descent in the United States, from the African beginnings to 1865. The course will emphasize the forced migration of Africans, their experiences under plantation slavery, their resistance and emancipation, and their contributions to American society.

HIST 3334: The Africans in the Diaspora

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of the activities and experiences of African people who live outside the continent from the earliest times to the present. This course examines the migration of Africans to Eurasia, Oceania, and the Americas, and gives special attention to the slave trade across the Sahara Desert and the Atlantic and Indian Oceans; the comparative experience of Africans in slavery in the Middle East and the Americas; emancipation and the process of racial and national integration; and the economic, political, and cultural contributions of Africans in the Diaspora.

HIST 3335: African American History, 1865 to Present

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

A history of African Americans in the United States since emancipation. The course emphasizes the struggles waged by African Americans to achieve racial equality and full citizenship in the United States, and the social, cultural, political, and economic forces that have shaped the African American community. Special attention is given to the men and women who led the struggle, the ideas and ideals which inspired and dominated each phase of the struggle, and the movements and institutions which were created in the process.

HIST 3337: Greek and Roman History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A history of Greece and Rome from the rise of the Greek city-state to the collapse of the western Roman Empire, with emphasis on their political, cultural, and intellectual contributions to the development of Western society.

HIST 3340: U.S. Military Experience

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

A survey of the development of the American military and its role in U.S. and world history. The course will emphasize the political, economic, and social importance of the military and its role in integrating U.S. society as well as the evolution of strategy, operations and tactics and their use in warfare.

HIST 3341: Women in U.S. History and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Focuses on the social, economic, political, cultural, and religious experiences of American women of various racial, ethnic, and religious backgrounds from the Colonial period to the present.

HIST 3350: England to 1688

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of English history from the earliest time to 1688. The course emphasizes political, cultural, and social developments between the Norman conquest and the transformation of England into a constitutional monarchy by the Glorious Revolution.

HIST 335 I: Modern England

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

English history from 1689. The course emphasizes the rise of parliamentary government, the importance of the British Empire, and the social, cultural, and economic ideas that have made England and much of the English-speaking world what they are today.

HIST 3357: Africans in Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of the history of people of African descent in Asia from the African beginnings to the present. The course evaluates the historical significance of the African presence in the Middle East, India, Southeast Asia, and China. It emphasizes the historical contacts and connection between Africa and Asia, the forced migration of Africans in the age of Islamic expansion and imperialism, the comparative experiences of Africans in bondage and freedom, and their integration into the host societies.

HIST 3358: Africans in Latin America and the Caribbean

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A history of the people of African descent in Latin America, the Caribbean, and the United States, from the African beginnings to 1888. The course will examine the forced migration of Africans; their roles in the conquest and settlement of Spanish America, Brazil, and the West Indies; and their comparative experiences under plantation slavery. It will emphasize their resistance and emancipation, and their contributions to the development of the multiracial character of Latin American and Caribbean societies.

HIST 3360: Russian Empire to 1917

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

The history of the Russian Empire from its early beginnings to the Revolution of 1917. The course emphasizes the importance of Greco-Roman and Asian influences, the impact of the Russian Empire on eastern Europe and eastern Asia, and the political, social, cultural, and revolutionary ideas that have created modern Russia.

HIST 336 I: Themes in Slavic and Eastern European Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

This course is an introduction to the history, politics, arts, and culture of Slavic and Eastern Europe with a concentration on the last two centuries and contemporary events. After a brief historical survey, students examine prominent themes such as nationalism, ethnicity, state-building, and imperialism. Many themes are analyzed using examples from the arts, popular culture, music, and literature.

HIST 3366: History of Mexico and Central America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

Examines the Mesoamerican pre-classic civilizations, the Aztec Empire and the Maya kingdoms, the Spanish conquest and establishment of New Spain, and the independent nation-states of Mexico and Central America. Themes include Spanish colonialism, the Indian struggle for justice, modern nation-state building, and relations with the United States.

HIST 3367: History of Brazil

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A study of Brazil, to include the Native American period, Portuguese colonialism, the Empire of Brazil, and Brazil in the 20th century. Major themes are sugar and slavery, boom and bust economic cycles, the formation of the Brazilian social identity, Brazil and the Amazon, and Brazil's place in the contemporary global world.

HIST 3371: Modern Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1110, HIST 1111, or HIST 1112

This course surveys European history from 1789 to the present. The course focuses on forces that have shaped modern Europe such as liberal ideologies, industrialization, and the development of mass society. It examines the causes and consequences of the French Revolution, the era of national unification, imperialism, the two World Wars, the impact of the post-WWII era, the collapse of Eurocommunism, the evolution and impact of NATO and the European Union, and current challenges.

HIST 3372: Ancient to Pre-Modern China

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112.

This course introduces the main themes in Chinese history from the Neolithic to 1600; discusses how traditional cultures and outside influences have interacted to produce traditional China; explores the great diversity and impressive continuities of traditional Chinese civilization; and assesses the significance of the institutions of state, family, and women in Chinese history.

HIST 3373: Modern India and South Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111, or HIST 1112

This course emphasizes how Hindu, Buddhist, Islamic, and other traditional cultures combined with British colonial rule and other modernizing influences to produce the India of today. Some attention is also given to peripheral areas, particularly Pakistan and Bangladesh.

HIST 3374: Modern China

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100 or HIST 1111 or HIST 1112

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of China since 1600. The course emphasizes how traditional cultures, outside influences, and modernizing forces have interacted to produce the China of today.

HIST 3375: Silk Road

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112.

The Silk Road was the world's first great superhighway, linking China and Japan to the Mediterranean World across Central Asia from ancient times. The peoples along the way traded luxury goods as well as ideas, religions, art, culinary and musical traditions. Through lectures, reading, and films, we explore the cultural interactions between East and West. Primary sources help us understand the great ideas in Buddhism, Islam, the Indian royal epics, Christian crusading and Mongol expansion.

HIST 3376: Historiographical Debates

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112.

Investigates the major limits and problems inherent in historical understanding and introduces the student to philosophies of history that have sought to address those problems. Case studies of major historical controversies help students recognize the important ways those limits and problems influence even the greatest scholar's efforts at historical analysis.

HIST 3377: History of Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

History of scientific ideas and methods from ancient times to the present, with special emphasis on intellectual trends that contributed to the modern world's scientific outlook.

HIST 3378: History of Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

This course examines technology as a factor in historical change, emphasizing the role of tools, machines, and systems in revolutions, culture, politics, and economics. Students engage historiographical debates and readings on the role of technology in the recent and distant past. More broadly, students develop a critical understanding of the role of humanistic inquiry in technological knowledge through biographies, case studies, and primary source documents.

HIST 3379: Central Asia in World History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

This course provides an advanced introduction to the history of Central Asia from a global perspective. It covers a large territory including Kazakhstan, Turkmenistan, Uzbekistan, Kirgizstan, and Tajikistan. This course focuses on the changes and continuities in the cultures and societies that flourished in this region during the times of major transformations with global significance, such as the expansion of the Mongolian Empire, spread of Islam, encounters with modernity, and emergence of the nation states.

HIST 3380: Premodern Japan

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, HIST 1111, or HIST 1112

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of the Japanese archipelago from the earliest times to 1600. The course emphasizes Japan's interactions with outside world and how the indigenous and foreign elements were combined to create the basis of Japanese society.

HIST 3381: Modern Japan

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, HIST 1111, or HIST 1112

This course provides a basic survey of the major political, economic, social, cultural and intellectual developments of the Japanese archipelago from 1500 to the present. The course emphasizes Japan's interactions with the outside world and how indigenous and foreign elements were combined to create the basis of modern Japanese society.

HIST 3382: North Africa and Middle East in Modern Times

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111 or HIST 1112

This course analyzes the history of North Africa and the Middle East since the emergence of Islam. Its major themes include the rise of Berber-Arab/Islamic civilization, the historical ties between North Africa and the Middle East, and the impact of Ottoman rule. Consideration of the 20th century includes European imperialism, the advent of military rule, the establishment of Israel, Arab-Israeli wars and the search for peace, pan-Arabism and the independence movement in Maghrib, petroleum and international politics, the rise of Muslim fundamentalism, and the problems of economic development and modernization are all important themes in the course.

HIST 3391: History of West Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A history of West Africa from the earliest times to the present. The course emphasizes cultural continuities and changes, trade and cultural ties with North Africa, and contemporary challenges of

economic development and nation building in the region. It examines important themes like village, urban, and community life; the formation of mini and mega states such as Ghana, Mali, and Songhai empires; the creation of trans-Saharan and trans-Atlantic trade networks; traditional religion, Islam, and Christianity; European colonialism and African resistances; and decolonization.

HIST 3392: History of Southern, Eastern and Central Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A history of Southern, Eastern, and Central Africa from the earliest times to the present. The course emphasizes continuities and changes in African culture, African participation in Indian Ocean and Middle Eastern trade networks, and the impact of European colonization. It examines important themes like Bantu migration and state formation in Central Africa; the emergence of the Ethiopian kingdom; the impact of the Zulu Mfecane; Swahili culture and Omani rule in East Africa; Dutch settlement and the development of apartheid; and the achievement of Black majority rule in South Africa.

HIST 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the co-op coordinator.

A supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. For sophomore, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

HIST 3398: Internship

1-9 Credit Hours

Prerequisite: 60 Credit Hours and Approval of the internship coordinator.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, or private or government agency.

Notes: Credit is allowed in elective areas.

HIST 4163: The United States between the World Wars

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course provides an overview of the economic, political, legal, social, and cultural developments that occurred in the United States during the period between World War I and World War II

HIST 4204: The History of the American West

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course surveys the history of the American West with special emphasis on the development of the Trans-Mississippi West from the early 19th century to recent years. The crucial influences of the

environment, the interaction of Native Americans, Hispanics, Euro-Americans and other cultural groups, and the unique relationship of the region with the Federal government are explored.

HIST 4245: Business & Economic History of United States

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course surveys American business and economic development from colonial times to the present. Its major themes include the history of small business and family business; the shifting position of the U.S. within the world economy; the regional economy of Georgia and the South; labor-management relations; the labor movement; and the changing social, political, and cultural context within which business and economic institutions have developed.

HIST 4251: U.S. Social and Cultural History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course explores the cultural history of the United States since inception. It considers the themes of nationality, immigration, ethnicity (Asian-Americans, Hispanic-Americans, and Middle Eastern-Americans), the elderly, popular culture, and the environment.

HIST 4255: Diplomatic History of the United States

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1100, HIST 1111, or HIST 1112) and (HIST 2111 or HIST 2112)

This course examines major trends in U.S. diplomacy from 1890 to the present, emphasizing U.S. rise to world power, World Wars I and II, the Cold War and its end, and U.S. relations with developing world areas.

HIST 4391: Emerging Themes in African History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, HIST 1111, or HIST 1112

This course is a survey of major themes in African cultural history from the earliest times to the beginning of European colonialism. The course introduces students to the peoples, societies, and cultures of the continent and emphasizes dominant themes such as cultural unity and diversity, empire and civilization, kinship and family, ethnic and nation building, Islam and traditional religions, indigenous institutions, slavery, and sociopolitical transformations before European colonialism.

HIST 4400: Directed Study

1-3 Credit Hours

Prerequisite: (HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112)

Covers special topics and seminars external to regular course offerings.

HIST 4410: Colonial America to 1763

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Starting in the pre-Columbian period, this course covers the American experience until 1763. It looks at Native American life, colonization and settlement by the Spanish, French and English, interaction with the Atlantic world, and the wars for imperial dominance fought in North America until 1763. Issues explored include class structure and family life, religion, politics, intellectual movements, society and culture, slavery, and treatment of minorities.

HIST 4411: The American Revolution

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Examines the American Revolution from the start of the colonists' disputes with Britain through the ratification of the Constitution. Issues covered include the development of tensions between Britain and the colonies during the Seven Years' War and decade-long dispute over taxation, the decision to declare independence and the Revolutionary War, the postwar Confederation government, and the creation of the Constitution. The roles of women, Native Americans, African Americans, and loyalists are also examined.

HIST 4412: The Early Republic

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course will explore the history of the United States from 1787-1824. Topics and issues covered will include the creation of the Constitution, the formation of the first party system, the growth and development of the federal government, the young republic's foreign policy, the War of 1812, the Market Revolution, the Era of Good Feelings, and the development of a uniquely American culture. Social, economic, political, and military aspects of the American experience will be addressed.

HIST 4415: Jacksonian America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This course will explore the history of the United States from 1815-1848. Topics and issues covered will include the War of 1812, the Market Revolution, the Era of Good Feelings, the rise of Andrew Jackson, Indian Removal, the formation of the second party system, the rise of the reformist impulse, sectional disruptions caused by territorial expansion and slavery, the annexation of Texas, the Mexican War, and the continued development of a uniquely American culture. Social, economic, political, and military aspects of the American experience will be studied.

HIST 4424: Museum Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2112 and HIST 3100

This course exposes students to both the theory and practice of education in museums, historic sites, and other public history and cultural institutions. An emphasis is placed on the way that museum educators combine theory with practice when implementing educational programming. Major trends in the field of museum education are explored including K-12 education, museum-community partnerships, online learning, and audience engagement.

HIST 4425: Oral History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Focuses on the methods of taking, processing, and utilizing oral histories. Additional emphasis is placed on the study of planning, development, and operation of oral history projects for libraries, museums, corporations, and public history agencies.

HIST 4426: Documentation and Interpretation of Historic Sites

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Explores the methods of documenting historic properties, especially as related to the National Register of Historic Places. Special emphasis is placed on completing a nomination for the National Register of Historic Places. Includes interpretation of historic sites for public exhibit.

HIST 4428: The Third Reich

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 and HIST 1112

This course draws a wide range of texts to place the Third Reich (1933-1945) in a broad historical context to understand its rise, causes, consequences, and legacies.

HIST 4430: Museum Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Provides a broad introduction to the museum world and the functions of museums in American society. Emphasis will be placed on historical museums. Subjects covered will include museum management, collections management, education, interpretation, exhibit design, ethics, and scholarly criticism of museums.

HIST 4435: History and Memory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

This seminar experience examines the literature of public history and memory. Through readings and discussion, the class will examine what we know about the past and how we know it, the changing interpretation of historical events over time, the shape and influence of historical memory, the politics of historical interpretation, and the public presentation of history.

HIST 4440: Medieval Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111, or HIST 1112

This course is a survey of the origins of European culture, this course focuses on the period between the fourth and the fourteenth centuries, during which time Europe achieved its own form of cultural unity distinct from that of its Mediterranean neighbors.

HIST 4442: History of Religious Tolerance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

This course traces the origins of the concept of tolerance of the religious "other," with a focus of content on medieval and Early Modern Europe. Besides the historical exploration of the topic and an examination of the emergence and development of the idea of religious toleration against a background of persecution and wars of religion, students also examine and discuss philosophical and practical aspects of religious tolerance today.

HIST 4444: Renaissance and Reformation Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of the changing patterns of thought that radically altered European society between the 14th and 17th centuries. The renaissance of art, the triumph of

individualism, the rise of Protestantism, and the reformation of the Church will be studied in their social, political, and intellectual contexts.

HIST 4445: Age of Enlightenment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A contextualized discussion of major developments in European thought during the eighteenth century. Topics include rationalism and the notion of the social applicability of science, the idea of progress, the critique of established religion, economic theories such as those of the Physiocrats, and epistemological interests as expressed in the Encyclopedie of Diderot and d'Alembert, as well as the increased cosmopolitanism and the importance of extra-European models (especially the Chinese Confucian

model).

HIST 4451: Civil War and Reconstruction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Causes and development of the U.S. Civil War from 1830. Includes an analysis of the political, social, and economic aspects of the Reconstruction Era.

HIST 4453: World War I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

This course provides an overview of the major issues and events surrounding the First World War, exposing students to its opposing governments, leaders, military forces, and major battles, aspects that shaped the conduct and outcome of this momentous international confrontation. It affords students an understanding of the political, military, and social histories of the war and the long-range political and social implications and consequences of the treaty that came at its conclusion.

HIST 4454: Twentieth Century Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of European history from 1914 to the present. The course focuses on the main forces that have shaped Europe such as the Second Industrial Revolution and the development of mass society. It examines women's issues; the rise of Fascism; the impact of existentialism on philosophy, literature, and art; the collapse of Euro-communism; and progress toward European Union.

HIST 4455: Twentieth Century Russia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A study of Russia in the 20th century that examines in detail the birth, life, international influence, death, and aftermath of the Soviet Union and relates these events to Russian and world history.

HIST 4456: World War II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1111 or HIST 1112

A survey of the causes, events, and results of World War II. The course emphasizes military history and the global nature of the conflict but also examines the economic, political, and diplomatic aspects of the war.

HIST 446I: Gilded Age & Progressive Era

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

An examination of the expansion, industrialization, and urbanization of the United States in the late 19th and early 20th centuries and of the era's cultural, political, economic, intellectual, and social issues.

HIST 447I: Recent United States History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 2111 or HIST 2112

Recent United States History, 1939-present. Considers domestic political history, an overview of foreign policy, economic growth and change, and social and cultural reform movements.

HIST 4475: War and Revolution in Southeast Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112)

Studies the responses of the traditional cultures of Vietnam, Laos, Cambodia, Thailand, Malaysia, and Indonesia to outside influences and modernizing forces in the nineteenth and twentieth centuries; considers both world wars and the Indochina Wars in the context of the Cold War and their impact on Europe and the United States.

HIST 4488: Approaches to World History

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Prerequisite: Admission to the History Education Program; HIST 3271

The course examines approaches to world history as a field of study, including important debates and controversies in the tradition, along with best practices in teaching world history. The course includes a consideration of recent developments on topics such as modernization and globalization and their significance in world history, philosophical perspectives on the importance of world history in today's secondary classrooms, world history lesson planning and teaching, and a 20 hour middle school field component.

HIST 4490: Special Topics in History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1100 or HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112)

The course treats topics of interest to both students and faculty.

HIST 4495: Research Seminar in US History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 3100; Departmental Approval.

This seminar introduces students to the historiography of a particular topic or theme in US History. It

requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline.

Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.

HIST 4496: Research Seminar in European History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 3100; Departmental Approval.

This seminar introduces students to the historiography of a particular topic or theme in European History. It requires students to develop an original research paper on the topic

or theme using primary and secondary sources and reflecting standard practices within the discipline.

Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.

HIST 4497: Research Seminar in non-Western History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 3100; Departmental Approval.

This seminar introduces students to the historiography of a particular topic or theme of a particular region in the non-Western world. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline.

Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.

HIST 4498: Research Seminar in World History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 3100; Departmental Approval.

This seminar introduces students to the historiography of a particular topic or theme in World History, using the approaches of cross-cultural, transnational, or transregional history. It requires students to develop an original research paper on the topic or theme using primary and secondary sources and reflecting standard practices within the discipline.

Notes: This course should not be taken before the second semester of the junior year and may be repeated once for credit.

HIST 4499: Senior Thesis in History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 3100 and (HIST 4495 or HIST 4496 or HIST 4497 or HIST 4498)

A combined tutorial and seminar in which students research and write a senior thesis in addition to making a computer based presentation in class.

HIST 4558: The Holocaust

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111, or HIST 1112

This course puts the Holocaust into historical perspective and reflects on what it reveals about genocide in the twentieth and twenty-first centuries. The course examines the roots of anti-Semitism, the rise of fascism in Europe as it relates to the ideology of the Nazi Party, and the implementation of the Final Solution. The structure and purpose of the ghettos and death camps is studied, as well as efforts to resist. The course concludes by looking at what contemporary representations of the Holocaust mean for a post-Shoah generation.

HIST 4640: Modern Ireland

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111, or HIST 1112

This course surveys Irish history from 1700 to the present. The primary emphasis is on the political history of Ireland, but the course also seeks to convey an understanding of Irish economic, social and cultural history, as well as of the influence of the Irish in America. Major topics include Irish nationalism, Ulster unionism, the Famine, Irish revolutions, the Irish Civil War, and the Troubles.

HIST 4905: History of the Atlantic World

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HIST 1100, or HIST 1111, or HIST 1112

This course exposes students to the momentous socioeconomic transformations that occurred in the Atlantic basin in the wake of Christopher Columbus's voyage of 1492. The changes were engendered by the convergence of diverse cultural groups and the complex social and economic networks that they established in the Atlantic basin. Students examine the complex interconnections, the consequences, and the resultant new social and economic institutions which significantly informed our contemporary world.

HIST 4911: Themes in American Environmental History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (HIST 1100, HIST 1111 or HIST 1112) and (HIST 2111 or HIST 2112)

This course focuses on the interaction of the natural environment and human societies in North America from approximately 1500 to the present. Topics include colonial and imperial expansion, industrialization and the rise of modern technological systems, agricultural intensification, the development of contemporary environmental thinking, and the origins of the modern environmental movement. Selected themes present American environmental history within a global context.

History Education

HIED 4490: Special Topics in History Education

1-6 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

HIED 4498: Internship in Teaching Social Studies (6-12)

0 Class Hours 18 Laboratory Hours 12 Credit Hours

Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching social studies (7-12).

Student teaching experience in social studies for provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in a local school and a specialist in social studies education. Twelve (12) hours of this internship will automatically substitute for SSED 4475. Proof of professional liability insurance. Students are responsible for their own school placements.

HIED 4550: Methods of History Education

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Pre-Service Certificate; Admission to Yearlong Clinical Experience

Corequisite: HIED 4650; INED 3305; INED 4435

This course is an examination and application of curriculum issues, learning theories, teaching strategies, instructional materials, and assessment procedures for teaching secondary social sciences in the multicultural and diverse classrooms of today. Emphasis is on those practices suggested by research in secondary social science education and encouraged by our accrediting agencies.

HIED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Admission to Teacher Education, Admission to Yearlong Clinical Experience, Issued Pre-service Certificate, HIST 3271 and HIST 4488

Corequisite: EDUC 4610, INED 3305, INED 4435, and HIED 4550

This course is the first semester of an intensive and extensive co-teaching yearlong clinical experience in history education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability is required.

HIED 4660: Yearlong Clinical Experience II

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: HIED 4550, HIED 4650, GACE eligibility and Educator Ethics Assessment 370. GPA of at least 3.0 in content course work and permission of the program coordinator.

Corequisite: INED 3306, INED 4436, ITEC 3300.

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in history education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required.

Honors

HON 1100: The First-Year Honors Colloquium: An Introduction to Honors Education

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

This course introduces students to the educational philosophy of the Honors College. Students explore and engage in various forms of academic inquiry, guided by a member of the Honors Faculty. In addition, they learn strategies for building strong academic credentials, finding good leadership and service opportunities, and preparing effective scholarship applications, both for internal (KSU) awards and for Rhodes, Marshall, Fulbright, or other major scholarships they may decide to pursue later in their academic career.

HON 200I: Introduction to Honors Research

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

In this one-hour introduction to Honors research, students will learn how to find a wide array of credible sources for research in any discipline; how to construct a research question and a thesis/hypothesis; how to write a literature review; and how to document their sources correctly using the documentation manual specific to their disciplines.

HON 3000: Honors Colloquium

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

In this course, honors students explore different disciplinary perspectives on knowledge and its acquisition, fostering faculty-student interchange in an informal seminar setting.

HON 3002: Honors Research

0-3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

These courses enable Honors students to earn course credit and gain hands-on experience by assisting a professor with his or her research. Students work one-on-one within their major field or within a closely related field doing primary and/or secondary research for a research project conducted by the instructor. Both the student and the instructor are expected to present their findings to members of the campus community at the end of the semester.

HON 3100: Honors Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

Students learn about conducting various kinds of research. Topics include advantages and disadvantages of different research methods, designs of studies, methods of collecting and analyzing data, ethical issues, application of findings, and protocols for writing reports and proposals. As their final project, students choose a topic and write a sample research proposal for the Honors Senior Capstone Experience. The course is mandated for honors students whose majors do not require a discipline-based research methods course.

HON 3102: Honors Peer Mentoring

0-3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

This class is intended to help students develop mentoring and leadership skills within their major field, a field of interest, or a university service program (e.g., Student Affairs, Housing, the Odyssey Peer Mentoring Program, or the ATTIC). Students can work with a professor, a department chair, a program director, or an administrator to assist a student or a group of students, using a variety of teaching methods and study skills in which they will receive training.

HON 3203: Honors Teaching Assistance

0-3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

This class is intended to help students develop teaching and leadership skills within their major field or a field of interest. Students will assist a professor in teaching duties. The class teaches students how to disseminate ideas and how to assess learning. It teaches communication skills since teaching assistants will work one-on-one, in small groups, and full class with students taking the course.

HON 3301: Honors Interdisciplinary Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

In this intensive reading and writing course, honors students will explore creative integrations of evidence from two or more disciplines, with emphasis on global learning. In addition to investigating the

how and why of interdisciplinary thinking, they will examine the origins, consequences, and principles underlying their own assumptions about issues raised in class lectures and discussions.

HON 4400: Honors Directed Study

1-3 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: Admission to the University Honors Program

This independent study course is designed to accommodate independent study through traditional or applied learning honors experiences that are exclusive of those offered in other Honors courses.

HON 4490: Honors Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

This course addresses special topics of interest to Honors students and faculty.

HON 4497: Honors Senior Capstone Proposal

1 Class Hours 0 Laboratory Hours 0-1 Credit Hours

Prerequisite: Admission to the Undergraduate Honors Program

To complete their Honors requirements, students design and execute a senior project reflecting original research; an original synthesis of existing research; an application of existing research to a new context; original creative work, or the design and coordination of a major-related service learning project in the major. This first one-hour capstone course gives them credit for producing a substantive honors capstone proposal. This course is required of all students in the Undergraduate Honors Program.

HON 4499: Honors Senior Capstone Project Completion

0-3 Class Hours 0 Laboratory Hours 0-3 Credit Hours

Prerequisite: Completion of HON 4497 with a "Satisfactory" and approved Honors capstone proposal

This final segment of the Honors Senior Capstone Experience requires an honors student to complete and submit the final capstone product(s): an honors thesis, an original creative work, or a capstone narrative, supported with appropriate documentation, describing the process and learning outcomes of a major service learning project. Required of all honors students.

Human Services

HS 2100: Overview of Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This required course provides students with an overview of helping professions. Topics include: philosophy of human services; characteristics of human service workers; careers in human services; description of public, nonprofit and for-profit agencies; theory; and cultural diversity. Human service majors are required to take this course prior to applying for admission into the HS program. This course is also a prerequisite for other HS courses. Students must complete 20 hours of volunteer service as a requirement of this class.

HS 2200: Fundamentals of Nonprofits

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This introductory course is designed to provide knowledge, theory, and skills in the administrative/management aspects of nonprofit organizations.

Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.

HS 2300: Cultural Competence in the Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This foundation required course in human diversity enhances students' abilities to understand, evaluate, and provide culturally sensitive and competent human services to members of diverse groups. This course gives students the opportunity to reflect upon their own cultural development and to be more sensitive to others

HS 2400: Interviewing Skills for the Helping Professions

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or HS Interest or Non-Majors with permission of Department.

This required course introduces students to interviewing skills in non-crisis settings. Communication skills learned in the course include relation skills building techniques within a problem solving model. Additionally, students learn skills to identify client strengths and to work with resistant clients. Students are required to role-play, videotape, and critique skills learned in the course. The goal of this course is to expose the student to a variety of perspectives used by all human service workers.

HS 2900: Working with Support Groups

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2400 and (HS Majors or Permission of Department)

This course introduces students to basic theory, skills, methods and values necessary to lead support groups. Students will develop, facilitate/co-facilitate issue oriented groups for different ages, genders, etc.

HS 3000: Foundation Internship

3 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200, HS 2300, HS 2400, HS Majors only, Minimum 2.8 Institutional GPA

This course provides students the opportunity to begin to explore the helping professions by completing service learning while applying theoretical knowledge, skills and human services value systems. Specifically, HS majors will be expected to demonstrate knowledge content from prerequisite courses. Students will be expected to demonstrate beginning competencies in micro and macro practice.

HS 3100: Poverty and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2300 and (HS major or HS Interest or Non-major with permission of department)

This required course will provide an overview of poverty in the US, its causes, efforts to alleviate it, and

its reflection in and by culture. Students will examine theories of the causes of poverty, insights into personal experiences of poor people, and critical thinking activities relative to this social issue.

HS 3200: Social Welfare Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200 and (HS major or HS Interest or Non-majors with permission of the department).

This required course provides students with an overview of American social welfare policy and social problems that policies address. The value systems underpinning the social welfare policies are explored along with the relevance of the NOHS Code of Ethics in shaping American social welfare policies.

Attention is also given to social welfare in a global context.

HS 3300: Human Socialization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or HS Interest or Non-majors with permission of the department

This required course provides students with an overview of human development within the social environment. This course focuses on the effect of the environment on personal and social functioning.

HS 3400: Community Intervention

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or Non-majors with permission of the department

This required course focuses on macro-human service practice as a complement to preparation in micro-direct services. It is specifically designed to provide students with a working knowledge and basic skills required for helping communities and organizations address their needs and concerns. Students will learn various models of community and organizational intervention that can be used in diverse settings.

HS 3500: Research Methods for the Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (STAT 1107 or MATH 2332) and (HS majors or Non-majors with permission of department)

This required course introduces quantitative and qualitative social science research methods with an emphasis on specific methods necessary for human service research and evaluation. This course enables students to become informed producers and consumers of research products, particularly in the human service areas. The emphasis is on basic concepts and underlying assumptions of various social science research methodologies and their design implications. It also develops skills in designing research projects with a particular emphasis on survey research. This course content has critical application in HS 4900-Capstone course. Notes: Offered as an on-line course.

HS 3600: Program Development and Evaluation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200

This course introduces students to the development and evaluation of human services programs. Students will discuss appropriate program evaluation techniques and design elements, including an evaluation plan.

HS 3650: Governance, Advocacy, and Leadership in Nonprofits

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200

This course introduces students to the theory and practice of governance, leadership and advocacy within non-profit organizations.

Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification and is offered as an online course.

HS 3700: Aging and the Family

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or Non-majors with permission of the department.

This course introduces students to family systems theory and practice in relation to working with older adults and their families. Impact on nursing home placement, Alzheimer's disease, death and dying, and depression as it relates to family function is stressed. Services and solutions to aging related problems will be included.

HS 3750: Death, Dying and Bereavement

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or Non majors with permission of the department

In this course, students will examine death, dying, and bereavement from historical, contemporary, and cultural points of view. Students will also study skills necessary for working with dying and bereaved populations

HS 3800: Social Entrepreneurship and Enterprise

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200 or MGT 4001

This course introduces students to the theory and practice of social entrepreneurship and innovation.

HS 3850: Introduction to Nongovernmental Organizations and Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200 or Permission of Department

Students critically examine types, challenges, strategies and activities of international nonprofit organizations (i.e., nongovernmental organizations). This course provides a forum for students to analyze NGOs and their relationships to governments, civil societies, donors and other stakeholders. International development serves as the unifying theme of exploration.

HS 3900: Dynamics of Family Violence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or Non majors with permission of the department

This course provides students with a working knowledge of family violence issues. Students will become familiar with different theories regarding causation and treatment as well as society's response to family violence.

HS 3950: Perspectives on Child Maltreatment and Child Advocacy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS majors or Non-majors with permission of the department

This course covers the history, comparative perspectives, legal framework and responses to child maltreatment. It also discusses the skills necessary to work in the field and other pertinent issues pertaining to child maltreatment and child advocacy. The field of child maltreatment is fraught with controversy. Much of the class focuses on these controversies. The approach of the course will be from a variety of diverse professional perspectives including the perspectives of a prosecuting attorney versus a defense attorney. The course is designed for students majoring in human services, criminal justice, education, social work, sociology, psychology, nursing, or other areas where knowledge of child maltreatment and advocating for children might be necessary. Much of the work will be hands-on.

HS 3960: Professional and System Responses to Maltreatment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 3950 and (HS majors or Non-majors with permission of the department)

This course is the second of two courses for the CAST certificate but may be taken as an elective. The purpose of this course is to prepare students to identify and investigate child maltreatment and apply intervention strategies for children and their families including prosecution where indicated. The class will discuss issues related to child witnesses such as recantation, suggestibility, memory, and the impact of multiple interviews on children. Role plays and case studies will be used in the course.

HS 4100: Grant Writing and Fundraising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200

In this course students study fundraising/development, including grant writing, special events, and basic finance in the nonprofit sector. It is appropriate for students working in all areas of Human Services as well as other majors who plan to work with nonprofits or governmental agencies.

Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.

HS 4200: Human Resources for Nonprofit Organizations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 2200

Students will examine theories and management practices necessary to effectively manage human resources for nonprofit organizations, including staff and volunteers.

Notes: This course is a required course for students seeking Nonprofit Leadership Alliance Certification.

HS 4300: Education Abroad in Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students will explore the issues and challenges of planning and will participate in the delivery of human services internationally.

HS 4400: Directed Study in Human Services

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

This course covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

HS 4430: Forensic Social Work

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 3300 or permission of the department.

This course provides an overview of the interplay between human service professionals and the court systems. It will also focus on forensic social work practice and theory. Additionally, it illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings.

HS 4490: Special Topics in Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

This course provides selected topics of interest to faculty and students.

HS 4500: Working with Families

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 3000 or Permission of Department

This course provides students an overview of the basic theoretical models used for family interventions. Students will also apply family intervention skills in a variety of practice simulations.

HS 4600: Working with Children and Youth

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 3000 or Permission of Department.

This course focuses on theoretical interventions through the life span phases of childhood and adolescence. Intervention techniques within an ecological frame work are explored and assessed for use in a wide range of problem areas and settings.

HS 4700: Crisis Intervention

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS 3000 or Permission of Department

Students will learn crisis intervention theory, advanced communication skills and knowledge about different crises and crisis settings. Students will be required to role-play crisis intervention techniques.

HS 4800: Ethics in the Helping Profession

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS Majors only, Completion of 90 credit hours, Minimum 2.8 Institutional GPA

Corequisite: HS 4900 and HS 4950

This course provides students with an understanding of the importance of ethics and values in the Human Services profession. The course exposes students to different ethical decision making models and diverse value systems. Students demonstrate skills in applying NOHS Code of Ethics to ethical dilemmas in Human Services and balance their personal values in the process. This course should be taken concurrently with HS 4900 and HS 4950 in the student's final semester.

Notes: This course is for Human Services majors only.

HS 4900: Capstone Seminar in Human Services

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: HS Majors only, Completion of 90 credit hours, Minimum 2.8 Institutional GPA

Corequisite: HS 4800 and HS 4950

This course is the culmination of the Human Services major, and thus integrates students' education and experiences. It provides students with the opportunity to synthesize and apply learning from their program of study in a comprehensive manner. This course should be taken concurrently with HS 4800 and HS 4950 in the student's final semester.

Notes: This course is for Human Services majors only.

HS 4950: Advanced Internship for Human Services Professionals

1 Class Hours 16 Laboratory Hours 6 Credit Hours

Prerequisite: Permission of program coordinator, HS Majors or NLA Certificate program, Minimum 2.8 Institutional GPA

Corequisite: HS 4800 and HS 4900

This course is an advanced supervised field experience that includes regular class meetings to discuss field experiences. This course should be taken concurrently with HS 4800 and HS 4900 in the student's final semester.

Notes: This course is for Human Services majors only.

Inclusive Education

INED 3304: Education of Exceptional Students

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Corequisite: ECE 3330

Prepares candidates to work collaboratively with families and school personnel to have a positive impact on the educational, social and behavioral development of all students, including those with a full range of disabilities, in a diverse society. The course focuses on knowledge of legislative mandates for serving exceptional students, characteristics of exceptionality, best practice in facilitating teaching and learning, and accountability through assessment of outcomes. This course requires an observational experience in an assigned school placement. Verification of professional liability insurance is required prior to placement in the field experience. Fulfills Georgia HB 671 requirement.

INED 3305: Education of Students with Exceptionalities in an Inclusive Setting I

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course prepares candidates to work collaboratively with families, school personnel to have a positive impact on the educational, social and behavioral development of students, including those with a full range of exceptionalities, in a diverse society. It focuses on knowledge of legislative mandates for serving exceptional students and the characteristics of exceptionalities. This course, along with INED 3306, fulfills Georgia HB 671 requirement.

Notes: Acceptance into Yearlong Clinical Experience required.

INED 3306: Education of Students with Exceptionalities in an Inclusive Setting II

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to Teacher Education and INED 3305

Corequisite: BED 4660 or CHED 4660 or EDMG 4660 or ENED 4660 or FLED 4660 or HIED 4660 or MAED 4660 or PHED 4660 or SCED 4660

This course prepares candidates to work collaboratively with families and school personnel to have a positive impact on the educational, social and behavioral development of all students, including those with a full range of exceptionalities, in a diverse society. It focuses on knowledge of legislative mandates for serving exceptional students, characteristics of exceptionality, best practices in facilitating teaching and learning, and accountability through assessment of outcomes. This course requires an observational experience in an assigned school placement. Verification of professional liability insurance is required prior to placement in the field experience. This course, along with INED 3305, fulfills Georgia HB 671 requirement.

INED 4000: Service Learning in Special Education

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program coordinator.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program coordinator.

INED 4430: Applied Linguistics and English Language Literacy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDUC 2120 and EDRD 3320, or approval of the department.

This course is an introduction to linguistic systems and their acquisition as they occur in the language development of English (ELs) and other limited English proficient learners. There is a strong focus on cognitive and social processes of language acquisition, including how functional, cultural, and critical literacies are constructed and promoted. Students will explore relationships among the four language domains, their connections to language proficiency levels and development of academic vocabulary.

INED 4432: Foundations for Teaching English Learners in Elementary Classrooms

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to teacher education program

Corequisite: ECE 4650

In this course, elementary preservice teachers are introduced to today's student immigrant population, education policies that impact immigrants, first and second language acquisition, linguistic elements, and differences in literacy development of English learners. In addition, candidates begin to develop an understanding of these concepts as they relate to meeting the academic needs of English learners and

recognizing the cultural resources they bring to the classroom in relation to the larger sociopolitical context.

INED 4433: Effective Instruction for English Learners in Elementary Classrooms

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: INED 4432

Corequisite: ECE 4660

This course focuses on developing effective instruction, assessment, and literacy development for English learners and other linguistically diverse learners in elementary classrooms. Specifically, candidates will a) examine the academic, linguistic, and social needs of linguistically diverse learners, b) explore the differences between teaching reading and writing to English learners and native English speakers, and c) develop skills necessary for the differentiation, scaffolding language and content for English learners at a variety of language proficiency levels.

INED 4435: Foundations of Teaching Adolescent English Learners

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Corequisite: Yearlong Clinical Experience I or department approval

In this course, middle and/or secondary preservice content teachers are introduced to today's student immigrant population, education policies that impact urban youth, first and second language acquisition, linguistic elements, and linguistically responsive pedagogy. In addition, candidates will begin to develop an understanding of these concepts as they relate to meeting the academic needs of English learners and recognizing the cultural resources that they bring to the content classroom in relation to the larger sociopolitical context.

INED 4436: Foundations of Teaching Adolescent English Learners II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: INED 4435

Corequisite: ECE 4460

This course focuses on developing effective instruction, assessment, and literacy development for English learners and other linguistically diverse learners in middle GRADE classrooms. Specifically, candidates will a) examine the academic, linguistic and social needs of linguistically diverse learners, b) explore the differences between teaching reading and writing to English learners and native English speakers; and c) develop skills necessary for the differentiation, scaffolding language and content for English learners at a variety of language proficiency levels.

INED 4437: Education for Linguistically Diverse Students

2 Class Hours 0 Laboratory Hours 2 Credit Hours

In this course, teacher candidates are introduced to first and second language acquisition, linguistic elements, and linguistically responsive pedagogy. In addition, students will begin to develop an

understanding of these concepts as they relate to understanding the educational experiences of English learners and recognizing the vast cultural resources that they bring to the classroom in relation to the larger sociopolitical context.

INED 4482: Applied Linguistics for Teachers of K-5 English Learners

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to BS in Elementary and Early Childhood Education, and EDUC 2130

Corequisite: ECE 3320

This course focuses on the major theories of first and second language acquisition, principles of linguistic systems (i.e., phonology, phonetics, morphology, syntax, pragmatics), and examines these topics drawing on a student-centered approach. Specifically, course content explores these topics as they relate to classroom-based language learning and implications for elementary classrooms. In addition, course content is framed within current conversations related to literacy, assessment, English language development standards.

INED 4483: Methods and Materials for Teaching ESOL in the K-5 Classroom

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: INED 4482

Corequisite: ECE 3305

In this course, candidates will articulate and apply knowledge of culturally and linguistically responsive pedagogy to the development of sheltered content area lessons for students learning English as an additional language. As part of lesson implementation, candidates will document and analyze the impact of instruction on English learners' language development and content learning through development of formative and summative assessments. A 30-hour field experience teaching English learners is a requirement for this course.

INED 4490: Special Topics in Inclusive Education

1-6 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

Industrial Engineering Technology

IET 1000: Orientation

1 Class Hours 0 Laboratory Hours 1 Credit Hours

This is an introductory course for Industrial Engineering Technology majors. The course covers the curriculum and how IET is used in industry applications.

IET 2227: Introduction to Statistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1112 or MATH 1113

As a study of descriptive and inferential statistics and applied probability, the course includes measures of central tendency and variability, statistical sampling and estimation, probability distributions, introduction to hypothesis testing and non-parametric statistics. Industrial applications rather than theoretical developments are emphasized. Computer based solution techniques are used when appropriate. This is the first of a two-course sequence.

IET 2305: The Role of Industrial Engineering Technology in Industrial Systems

3 Class Hours 2 Laboratory Hours 4 Credit Hours

As an introduction to industrial systems and processes, this course will explore the basic production processes from the viewpoint of systems and design. The role and responsibilities of a graduate will be explored as well as the principles related to human, quality, and organizational, legal and ethical aspects of professional practice. The design and operation of production processes are studied as they relate to the areas in manufacturing, distribution and service industries.

IET 2432: Introduction to Managerial Costing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Introduces the basics of managerial costing and concepts of tracking variable costs in business production such as administrative costs, labor costs, and cost of goods sold. Includes basic managerial cycle concepts of fixed and variable cost collection, calculations, and decision-making analysis. Topics include: costing vocabulary, concepts, managerial cycle, cash control, inventory, and labor costing.

IET 2449: Logistics and Supply Chain Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course offers an analysis of decision making in the current logistics environment and the tools needed for finding solutions to problems relating to purchasing, inventory, transportation, and warehouse management.

IET 3320: Advanced Logistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2449 or SYE 3710

This course will expand on the topics covered leading students to a deeper understanding of logistics and supply chain systems. Special emphasis will be given to current trends in the field such as global logistics, reverse logistics, nontraditional supply chains and risk assessment/disaster recovery. Each student will also research in more depth a single topic that interest them

IET 3322: Work Measurement and Ergonomics

2 Class Hours 4 Laboratory Hours 4 Credit Hours

This course will focus on work design and ergonomics in manufacturing. Topics will include work

methods and production processes to improve operator effectiveness and reduce production costs. Techniques studied include operation analysis, motion study, work sampling, time study, line balancing and ergonomic applications.

IET 3339: Statistical Quality Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2227 or STAT 1107

A study of the fundamentals of statistical quality control is provided. Topics include statistical process control with emphasis on applications and techniques including control charts for variables and attributes, and process capability. Other topics include scientific sampling fundamentals, acceptance sampling by attributes and variables, and reliability.

IET 3356: Quality Concepts and Systems Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students in this course will learn and apply quality systems principles, methodology, and standards. Students will analyze the decision making process in quality, and evaluate quality systems for compliance with standards and performance of the organization. Student teams will analyze and propose a solution for a real world quality problem.

IET 3398: IET Internship

1-4 Credit Hours

Prerequisite: Department Chair Approval.

This course is a structured experience in a supervised setting with an industry partner that is related to Industrial Engineering Technology. The goal is for students to attain more practical experience while using their acquired academic skills.

IET 3403: Advanced Statistics with Application

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2227 or STAT 1107

This second of a two-course sequence will review of basic statistics, estimation, confidence intervals and hypothesis testing. Techniques for gathering, analyzing, and presenting technical and engineering data are presented. Topics include chi-squared contingency tables and goodness-of-fit tests, one- and two-way ANOVA, regression analysis, and design of experiment. Computer-based solution techniques are used where appropriate.

IET 3407: Six Sigma and Lean Manufacturing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

A study of current trends in quality as it relates to Six Sigma, Black Belt and Lean Manufacturing.

IET 3410: Principles of Team Dynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students will learn the skills and techniques to succeed as a team member in the workplace. Topics

include leadership and communication skills, social influences, decision making, problem solving techniques, and team development.

IET 3424: Engineering Economy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1112 or MATH 1113 or STAT 1107

Concurrent:or MATH 1190

As an introduction to the effect of the time value of money, this course will use equivalent annual cost, present worth, internal rates of return, and benefit to cost ratios in making economic analysis. Tax consequences, replacement theory and economic life will be examined in the analysis of engineering problems.

IET 3433: Product and Process Costing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ACCT 2100

This course explores cost measurement related to manufacturing and non-manufacturing sectors through cost measurement and control in job order, process, standard and variable costing systems. Content includes the recording and control of material, labor and overhead costs, absorption and direct costing, budgeting, and cost volume profit and analysis.

IET 3511: Sustainability Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Students will apply engineering skills to address ethical, ecological, economic, and social environmental issues. Students will explore the effects of human population on energy use, the quality of air and water, and the use of global resources for sustainability.

IET 3620: Warehousing Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course explores various methods and systems dealing with warehousing systems including such areas as management systems, operations, storage and handling strategies, work flow, automation, transportation modes and performance benchmarking.

IET 4115: Human Resources Management for Engineers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Senior Level Standing.

This course is a comprehensive study of human resource management used in industry today. Topics covered are organizational structures, labor relations, supervising professionals, legal issues, team-based environments, performance appraisal, leadership, wage and salary and employee benefits.

IET 4135: IET Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1112 or MATH 1113

Concurrent: or MATH 1190

This course is a comprehensive study of project concepts, such as project definitions, systems and methodologies, project cycles, roles and responsibilities of leaders and members, and procedures used in industrial and production environments. Topics include scheduling, controlling projects, time-cost tradeoff, resource allocation and project cost control.

IET 4151: Operations Management for Engineers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2227 or STAT 1107

This course includes basic production and inventory control systems. Areas of focus include forecasting, master planning, MRP, productivity, competitiveness, strategy, product and service design, process selections, capacity planning, and location planning.

IET 4405: Operations Research - Concepts, Models and Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2227 or STAT 1107

This course will introduce the students to quantitative techniques used in the solution of industrial operations problems. Topics include linear programming, assignments, transportation/shipment techniques, integer linear programming, and decision analysis.

IET 4422: Facilities Design, Plant Layout, and Materials Handling

2 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: IET 3322

Concurrent: IET 3433

Principles and practices in layout and material handling for industrial/service facilities planning are studied. A group project requires students to integrate product, process and functional design of a facility. Cost analysis for facility planning and operation is also utilized in the project.

IET 4451: Systems Simulation

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: IET 2227 or STAT 1107

This is an in-depth study of simulation as applied to manufacturing, inventory and distribution systems. Topics will include basic simulation and system modeling techniques, random sampling procedures, production modeling, inventory modeling and system evaluation. Emphasis will be upon hands-on simulation of various operations using ARENA, a PC-based graphical simulation program.

IET 4475: Senior Project

1 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: IET 4422 and IET 2449 and IET 3356

Concurrent: IET 4135

This course focuses on the student completing a project that is a comprehensive application of the subject matter in the IET curriculum. A large-scale feasibility study is to be performed to emphasize the interrelated topics of logistical and production processes for a fictitious company. The course requires a formal written report and a defended oral presentation before industrial and academic experts.

IET 4490: Special Topics in IET

1-4 Credit Hours

Prerequisite: Department Chair Approval

This course covers special topics related to Industrial Engineering Technology such as process improvement, quality assurance, industrial systems and logistics. Students may take this course more than once for credit with approval of the department chair.

IET 4810: Ethics and Safety

1 Class Hours 0 Laboratory Hours 1 Credit Hours

This course is designed to provide the student with knowledge and information pertaining to ethics and safety regulations. A formal written report and oral presentation are required.

Information Security and Assurance

ISA 3010: Security Script Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides a study of secure programming and security scripting techniques. The course examines aspects of developing traditional computer software, applying additional controls and measures to prevent the development of vulnerable and exploitable code. The course then examines scripting techniques used in support of ongoing technical security functions.

ISA 3100: Principles of Information Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: [(Grades of "B" or higher in (MATH 1160 or MATH 1190), ACCT 2100, ACCT 2200, ECON 2100, ECON 2200 and IS 2200) or Admission to Coles College Undergraduate Professional Program] or (completion of 60 credit hours with a minimum GPA of 2.0, IS 2200, and student in a Coles College Partner Program that includes this course).

An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with

protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

ISA 3200: Network Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of C or higher in ISA 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides a detailed examination of tools, techniques, and technologies used in the protection of information assets. This course is designed to provide a solid foundation in data communications and networking fundamentals and the security of networks and networking technologies.

ISA 3210: Client Systems Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an exploration of client computer system security and vulnerabilities, including client computer architectures, and operating systems. It provides the detailed technical coverage necessary to protect computer information system clients by presenting the knowledge of client platform computer hardware components, client network devices and interfaces, as well as the structure and usage of common client operating system software from an information security perspective. Additional learning regarding ongoing maintenance and operational issues of client computing systems will also be included.

ISA 3300: Management of Information Security in a Global Environment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of C or higher in ISA 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides a detailed examination of the administration of the information security function beginning with the strategic planning process and including an examination of the policies, procedures, and staffing functions necessary to organize and administrate ongoing security functions in the organization. Subjects include security practices, security architecture security in light of international regulation, competition, and operating environments is emphasized throughout the course.

ISA 3330: Information Security Approach to Crisis Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course. This course may not be used toward the ISA major.

This course is an interdisciplinary examination of detailed aspects of contingency planning and crisis

management. It includes disaster recovery planning, business continuity planning, and a complete and detailed treatment of crisis management. Students will learn to develop and execute plans for implementing contingency operations when critical functions are disrupted.

ISA 3396: Cooperative Study in Information Security and Assurance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of C or higher in ISA 3100, Admission to the Coles College Undergraduate Professional Program, and approval of the Career and Internship Advisor (KSU Career Planning and Development)

A supervised work experience for a minimum of two semesters at a site in business, industry, or government, focusing on some aspect of information security and assurance. For junior- or senior-level students who wish to obtain on-the-job experience in Information Security and Assurance, in conjunction with their academic training. Students may take a cooperative study for multiple semesters, however only six credit hours are applicable toward the BBA in Information Security and Assurance as Business Electives. Contact the department office for additional information on the requirements and restrictions of the cooperative study.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

ISA 3398: Internships in Information Security and Assurance

1-6 Credit Hours

Prerequisite: Grade of C or higher in ISA 3100, Admission to the Coles College Undergraduate Professional Program, and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised work experience for one semester at a site in business, industry or government, focusing on some aspect of information security and assurance. For sophomore-, junior-, or senior-level students who wish to obtain on-the-job training experience in Information Security and Assurance, in conjunction with their academic training. Students can earn between one and six credit hours toward their degree programs subject to the programs' restrictions. Contact the department office for additional information on the requirements and restrictions for the internship.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

ISA 3710: International Issues in Information Security and Assurance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course explores emerging international issues in information security and assurance. It provides content about the interaction between the organization, society, and public agencies across national boundaries. It examines the role of people versus technical security as currently debated by contemporary organizations from multiple cultures and nations. Each semester, the specifics of this course will be developed to leverage the current international information security landscape and the

context of the scheduled course offering.

ISA 4200: Perimeter Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of C or higher in ISA 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A detailed examination of the techniques, tools, and technologies used to support the protection of an organization's electronic perimeter. The course will examine the evaluation, selection, deployment, and administration of firewall, virtual private network, intrusion detection and prevention systems, and other applications used to guard organizational information from external attacks.

ISA 4220: Server Systems Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or higher in ISA 3010 and ISA 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an exploration of server computer system security and vulnerabilities, including server computer architectures, and operating systems. It provides the detailed technical coverage necessary to protect computer information system servers by presenting the knowledge of server platform computer hardware components, server network devices and interfaces, as well as the structure and usage of common server operating system software from an information security perspective. Additional learning regarding ongoing maintenance and operational issues of server computing systems will also be included.

ISA 4330: Incident Response and Contingency Planning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "C" or higher in ISA 3300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the detailed aspects of incident response and contingency planning consisting of incident response planning, disaster recovery planning, and business continuity planning. Developing and executing plans to deal with incidents in the organization is a critical function in information security. This course focuses on the planning processes for all three areas of contingency planning incident response, disaster recovery, and business continuity, and the execution of response to human and non-human incidents in compliance with these policies.

ISA 4350: Management of Digital Forensics and eDiscovery

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or higher in ISA 3200 and ISA 3210 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course focuses on the detection, isolation and response to security breaches and attacks. It

provides a detailed examination of the entire computer forensic process and presents specific procedures required to respond to a computer crime incident. Subjects include recognizing unauthorized access, identifying file anomalies, and traffic monitoring.

ISA 4400: Directed Study in Information Security and Assurance

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor, major area committee, and Department Chair prior to registration.

Selected topics of advanced nature that are not in the regular course offerings.

ISA 4490: Special Topics in Information Security and Assurance

1-3 Credit Hours

Prerequisite: Specified courses which vary by topic, 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.

Selected special or current topics of interest to faculty and students.

ISA 4700: Emerging Issues in Information Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "C" or higher in ISA 3300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course explores emerging issues in information security and assurance, and the role of organizational information security in state, regional and national policy. It provides content about the interaction between the organization, society, and public agencies. It examines the role of people versus technical security ideals currently debated by contemporary organizations.

ISA 4805: Penetration Testing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or higher in ISA 3210 and ISA 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course contains a detailed examination of real world information security knowledge, enabling recognition of vulnerabilities, exploitation of system weaknesses, and implementation of safeguards against threats. Through hands-on exercises and a final project, students will learn the art of penetration testing. Students who complete this course will be equipped with the knowledge necessary to analyze and evaluate systems security.

ISA 4810: Cyber Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or higher in ISA 3210, ISA 4200 and ISA 4220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course discusses the hardware/software tools and techniques associated with the protection of computer systems and networks. Students learn how to protect network resources as deployed in a typical organization. Course topics include policy and practice associated with the protection of communication resources, intrusion detection systems, firewalls, and use of various tools for system and network protection.

ISA 4820: Information Security and Assurance Programs and Strategies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of "C" or higher in ISA 4200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The course integrates learning from across the ISA program and encourages the student to develop skills in synthesis and communication (both written and oral) as well as teaching new material about the role of the CISO and the strategic and tactical planning and operation of the information security department in a variety of organizations. Outside speakers will supplement the course and provide the student additional, outside perspective on the information security industry.

Information Systems

IS 2200: Information Systems and Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101 and MATH 1111 or higher.

This course will provide an overview of fundamentals of information systems technologies and their applicability to real world scenarios. Topics may vary as technology changes but the students will learn the tools of productivity. The course aims to improve communications skills appropriate to the business setting.

IS 3020: Application Development I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will provide students with the knowledge and skills needed to develop applications in a development environment. It covers .NET and .NET 2.0 technologies. This is the first course in the .NET development platform. Students will learn how to develop applications using Microsoft Visual Studio .NET development environment.

IS 3040: IT Infrastructure

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides foundation skills on information technology infrastructure. Topics include hardware; software; communications including LAN, WAN, and wireless network; transaction support; facilities for business continuity and security; infrastructure management best practices; service level agreements; and risk management including compliance, sourcing, disaster planning, auditing, controls, and standards.

IS 3060: Systems Analysis and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3020 and IS 3100 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An introduction to the basic concepts underlying systems analysis and design, and the application of those techniques in the development of business information systems. The student will learn how to develop information systems based on user requirements and specifications. The course will expose the students to UML and other graphic modeling processes.

IS 3080: Information Resource Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3020 and IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Information Resource Management (IRM) constantly strives to improve its commitment to incorporate new technologies to advance the organization. The focus of this course is on management of information systems resources, technologies and people. Covers strategic planning of information resources investments, operations, and support; management of human, technological, and financial resources; management of end-user computing; IS functional organization and the CIO; and organizing information resources for efficient and effective services.

IS 3100: Information Systems Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: [(Grades of "B" or higher in (MATH 1160 or MATH 1190), ACCT 2100, ACCT 2200, ECON 2100, ECON 2200 and IS 2200) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0, IS 2200, and student in a Coles College Partner Program that includes this course].

Illustrates how to effectively use, manage, and participate in the development of information technology applications that support common business processes. Focuses on the interdependence among an organization's management, business processes, and information systems. Provides hands-on experience

in developing a business information system.

IS 3220: Global IS Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

In this course, students will be exposed to the basic principles of Global Project Management, effective teamwork and collaboration. It will prepare students to understand key issues in global project management such as project initiation, planning, scheduling, budgeting, risk analysis, quality management and communicating and collaborating across political and cultural boundaries. Tools such as Microsoft Project will be used to develop and track Information Systems projects.

IS 3260: Web Development I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course presents introductions to many of the basic concepts, issues and techniques related to designing, developing and deploying Web sites. During the course, students will learn about Web design, HTML, basic scripting, Dynamic HTML, and Cascading Style Sheets (CSS). Students will learn how to create sites both manually and through the use of Web site development software tool such as a text editor, Dreamweaver, and Adobe Photoshop.

IS 3280: Data Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 2200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course introduces the student to the properties, logic, design, implementation, and access to business databases. Particular emphasis is placed on the relational approach to database management and processing, which focuses more on the logical nature of a database than its physical characteristics. Relational database programming assignments are drawn from the fields of business and government.

IS 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: IS 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised credit-earning work experience for a minimum of two academic semesters with a previously approved business firm, private agency, or government agency. For sophomore, junior, or senior students who wish to obtain on-the-job experience in conjunction with their academic education.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

IS 3398: Internship

1-9 Credit Hours

Prerequisite: IS 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised credit-earning work experience for one academic semester with a previously approved business firm, private agency, or government agency. A research paper is required to receive credit. For junior and senior students who wish to participate in an on-the-job experience in which they may apply their academic education. The work experience may not be with a current employer. The course will be graded on an S/U basis. The number of credit hours applicable to degree requirements is limited.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

IS 3560: Business Process Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The course addresses the methods and techniques required to analyze, design, implement, automate, and evaluate business processes. It introduces key concepts, process design principles, and approaches to business process management. Students learn to analyze organizational performance from a process perspective and identify, document, model, assess, and improve core business processes. The course will include hands-on exercises in an ERP system to demonstrate business process integration. The challenges and approaches to organizational change, domestic and offshore outsourcing, and inter-organizational processes will be discussed.

IS 3720: Advanced IT Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3220, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will explore advanced concepts related to IT Project Management (PM) including project selection and integration of the knowledge areas of PMBOK. Topics necessary for excellence such as PM methodologies and program management will be emphasized. We will elaborate on case studies of companies that manage global IT portfolios and have benchmarked best practices. Students will work in groups on exercises using automated project management tools for scheduling, budgeting, and resource allocation.

IS 3740: Human Computer Interaction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3020 and IIS 3260, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A comprehensive introduction to the principles and techniques that impact human interaction with

computers. Topics include the foundations of human-computer interaction, building a graphical user interface, human-centered software evaluation, human-centered software development, graphical user-interface design, graphical user-interface programming, HCI aspects of multimedia, and HCI aspects of collaboration and communication. Major research and the building of a working graphical user interface are included.

IS 3760: Web Development II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3260, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The architectural model for computer-based application intense software systems centers around component development and deployment. This course will explore concepts related to the development of dynamic component-based web systems including web page connectivity to database systems and the development and utilization of Web Services. Web services include the ability to integrate code written in different programming languages and the emerging platforms, architectures, and technologies (such as XML, SOAP, and WSDL) that have arisen to support the next generation of software systems. Specifically, students in this course will have an opportunity to directly interact with an Integrated Development Environment (such as Microsoft's .NET) and will be required to develop and implement dynamic Web pages and Web services.

IS 3920: Application Development II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (IS 3020 or ISA 3010) with grades of C or higher, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This development course provides an advanced development environment using information systems technologies and their applicability to real world application scenarios. Students will complete projects and assignments designed to explore advanced object oriented programming languages in the context of application development for mobile, personal computer, and/or sever devices. Students will use modern application and/or web development technology tools in various environments such as agile, mobile, and social and dynamic development.

IS 3940: Data Warehousing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3100 and IS 3280, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course provides an overview of planning, designing, building, populating a successful data warehouse and business intelligence system. Topics covered in this course include business requirement analysis, dimensional modeling, physical design, extraction-transformation-load (ETL) design and development, Analysis Service Online Analytical Processing (OLAP) database, and data mining.

IS 4400: Directed Study

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Special topics of an advanced nature that are not in the regular course offerings.

IS 4490: Special Topics

1-3 Credit Hours

Prerequisite: Grades of "C" or higher in specified courses (varies by topic), 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and department chair prior to registration.

Selected special or current topics of interest to faculty and students.

IS 4540: Data Mining

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: [(IS 3100 and Admission to the Coles College Undergraduate Professional Program) or (STAT 1107 and student in a Coles College Partner Program that includes this course)] and 60 credit hours with a minimum GPA of 2.0

Data Mining is the process of extracting useful information from data sets. It involves exploring and analyzing data sets to discover meaningful and valuable information. This course covers major data mining techniques including but not limited to data visualization, association analysis, classification, clustering, trend analysis, prediction, neural networks, text and web mining, and their applications in business. Various data analysis and data mining tools will be used to create analytical applications and achieve data mining goals.

IS 4560: e-Business Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3260, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Information systems that enable electronic transactions and communication have redefined the ways that firms compete, interact with value chain partners, and relate to customers. In the near future, all business will be e-business, and every organization will be required to effectively implement e-business solutions. This course explores enterprise e-business applications and the issues organizations encounter as they leverage Internet technologies to enhance communication and transactions with stakeholders.

IS 4860: Global Information Systems Strategy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will discuss contemporary global IT issues with respect to the role of information systems in providing organizational competitive advantage. Strategic IT planning and the evaluation process to ensure proper alignment of technology to business goals are also explained.

IS 4880: IS Capstone Course

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IS 3060, IS 3220 , and IS 3260 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is one of the capstone courses in the IS curriculum. In this course the students will apply the concepts learned in earlier courses to develop Information Systems projects. Tools such as VB.Net/ASP.NET will be used to develop the project and Microsoft Project will be used to develop and track project schedule.

Information Technology

IT 1113: Programming Principles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course covers the fundamentals of computer programming and the use of a computer for performing calculations and using data files. Concepts of counters, accumulators, decision-making, looping, subroutines, arrays, files and string processing are covered. A programming language such as Visual Basic is used for laboratory assignments.

IT 1324: Advanced Programming Principles

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: CSE 1301 or CS 1301

This course introduces contemporary programming concepts of object-oriented data structure and abstractions, object-oriented data access techniques such as searching, sorting, and iterations. Problem solving in object-orientation is emphasized.

IT 2290: Special Topics

1-4 (variable) Class Hours 0 Laboratory Hours 1-4 Credit Hours

Prerequisite: IT 1113 & permission from Department

The course covers special topics at the intermediate level that are not in the regular course offerings.

IT 3123: Hardware and Software Concepts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302 or CSE 1302 or IT 1324

Corequisite: MATH 2345 or CSE 2300

This course examines various hardware and software components and how they work together in a modern computing environment. Topics include an overview of computer organization and architecture, machine language and modern languages

IT 3203: Introduction to Web Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 1324 or CS 1302 or CSE 1302

This introduction course covers applications for the world wide web. Topics include current languages (such as HTML and JavaScript), basic web protocols, and human-computer interfaces for the web.

IT 3223: Software Acquisition and Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 1301 or CS 1301 or IT 1113 or CSE 1311

The course provides a high level introduction to two areas that are crucial to the IT profession, namely project management and software acquisition. It introduces students to the phases both in the project management and software acquisition and implementation process. Since requirements are crucial to both activities, the course will provide students with an in-depth introduction to requirements engineering. The course will also introduce students to a widely used project management information system.

IT 3423: Operating Systems Concepts & Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3123 or CS 3501

This course is an introduction to basic operating system principles. Topics include memory management, peripheral device management, file system management and process management. Different types of operating systems and their administrations are studied. Projects are carried out with simulations.

IT 3503: Foundations of Health Information Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course introduces students to the field of health information technology (HIT). Students will become familiar with the content, use, and structure of the health care data and medical records, health information management, the fundamentals of healthcare workflow and process analysis and redesign as a necessary component of complete practice automation, and health information systems. Students will also become familiar with the health care delivery systems in the U.S. and IT organizations and resources.

IT 3883: Advanced Application Development

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: (CSE 1302 or IT 1324 or CS 1302)

Concurrent: CSE 3153 or CS 3410

This course will allow the student to learn a second programming language and application development. Topics include review of language fundamentals, features of the programming language and development environment, and software development processes. This course will include course projects for hands-on experience with processes and tools.

IT 4123: Electronic Commerce

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3203 and CSE 3153

This course will examine the aspects of electronic commerce. Topics include internet development, EDS, security, network connectivity and privacy. Basic business practices using electronic commerce will also be covered.

IT 4153: Advanced Database

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 3153

This course will study how databases are used with programming applications. Topics include advanced PL/SQL (or similar database programming language), database transaction, database security, database maintenance, and distributed and web databases.

IT 4203: Advanced Web Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3203

This course covers more advanced topics on web site design and development including server pages, programming, database integration, and web server systems and security administration.

IT 4213: Mobile Web Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3203 or CSE 3203

This course introduces the concepts, practices, and technologies to design, develop, and manage cross-platform web sites and applications running on modern mobile devices.

IT 4323: Data Communications & Networking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3123 or CS 3501

Fundamental concepts of computer networking include topics such as properties of signals and media, information encoding, error detection and recovery, LANs, backbones, WANs, network topologies,

routing, Internet protocols, and security issues. The focus is on general concepts together with their application to support the business enterprise.

IT 4333: Network Configuration & Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4323

This course continues the study of networks. Topics include design and implementation of networks including synchronization, scheduling, exception and deadlock resolution, client server and web based collaborative systems. Network security will also be covered. Cost estimates and speed are examined from a management perspective.

IT 4400: Directed Studies

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair

This course covers special topics of an advanced nature that are not in the regular course offerings. Students will complete a research project in the computing field supervised by a faculty member. Credit hours vary from one to three depending on the nature and content of the project student involved. Up to three credits may be applied to the major area.

IT 4423: Linux/Unix Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3423 or CS 3502

This course introduces Linux/Unix operating systems. Topics include system administration, file systems and access permissions, regular expression, common tools and utilities, and network service configurations. Lessons will be enhanced using hands-on exercises.

IT 4490: Special Topics in Information Technology

1-3 hours Credit Hours

Prerequisite: Vary by specific topic, Junior/Senior Standing

Special topics selected by the Department Chair. Offered on a demand basis.

IT 4513: Electronic Health Record Systems & Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3503

This course provides an overview of the importance of key technical aspects of electronic health records, the overall architecture, features and functions of major EHR systems. Hands-on exercises with EHR systems allow students to learn by doing.

IT 4523: Clinical Processes and Workflows: Analysis and Redesign

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3503 or concurrent

This course introduces the fundamentals of healthcare workflow and process analysis and redesign as a necessary component of complete practice automation. Students will become familiar with the concepts of processes, process analysis and redesign in the healthcare settings. Workflow and process mapping in healthcare improvement including detailed guidance, helpful tools, and case studies are introduced.

IT 4533: Health information Security and Privacy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3503

Health information security and privacy are of utmost importance in today's healthcare environment. This course introduces the concepts, practices and concerns of information privacy and security unique to the healthcare settings. The course provides the student with a thorough understanding of the HIPAA security and privacy rules, meaningful use security requirements, security risk assessment and management, and how to integrate privacy and security into medical practices. Resources of privacy and security in healthcare are provided.

IT 4673: Virtual IT Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (IT 3423 or CS 3502),IT 4323, and CSE 3153

This course explores the design, implementation and use of virtualization, including desktop and server aspects such as deployment, clustering, storage and security. A high level overview of the various certifications available will be discussed. A project will be completed as part of the course.

IT 4683: Management of Information Technology and Human Computer Interaction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 3153

This course provides a study of the information needs in a formal organization and the information systems required to meet those needs within the planning, control, operating and decision-making processes. User acceptance of IT applications that crucially depend on the HCI component will be covered.

IT 4713: Business Intelligence Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 3153

This course introduces the concepts, practices, technologies and systems of business intelligence, which supports enterprise level data management, analytical processing, and reporting.

IT 4723: IT Policy & Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 3223 and (IT 3123 or CS 3501)

This course covers current issues in IT including the law, ethics and social values. Topics include copyright, patents, trademarks, trade secrets, computer ethics, computer crime, computer abuse, cultural impact, web issues, information warfare and current legislation.

IT 4823: Information Security Administration & Privacy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (CSE 2300 or MATH 2345) and CSE 3153 and (IT 3123 or CS 3501)

The student develops knowledge of the principles of information assurance at the policy, procedural, and technical levels to prepare the student for a role as a business decision-maker. Real-world examples from the text and current events will be used to demonstrate the applicability of the techniques of information assurance.

IT 4833: Wireless Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4823 or CS 3502

This course covers methods and techniques to secure wireless networks against threats and attacks. The topics include Security and Cryptography, Network Security Protocols, Security and Layered Architecture, Voice-Oriented Wireless Networks, Data-Oriented Wireless Networks, Security in Traditional Wireless Networks, Security in Wireless LAN, Security in Wireless Ad Hoc Network, Special Topic: Mobile Security.

IT 4843: Ethical Hacking for Effective Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4323 or ECET 3400 or CS 4622

This course focuses on detection of network and system vulnerabilities by taking an attacker-like approach to system, network, and data access. Topics include network attacks and defenses, Operating System and application vulnerabilities, social engineering attacks, and malware. Ethical, legal implications of network attacks are also discussed.

IT 4853: Computer Forensics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4823 or CS 3502

This course studies techniques and tools in computing investigation, digital evidence collection, recovery, and analysis. Topics include: Legal issues relating to digital evidence, recover deleted files and discover hidden information, reconstruct user activity from e-mail, temporary Internet files and cached data, assess the integrity of system memory and process architecture to reveal malicious code.

IT 4883: Infrastructure Defense

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4323

This course provides an overview of the infrastructure assessment and penetration testing process and the processes and techniques for improving the defensibility of that infrastructure.

IT 4893: Internet of Things: Applications and Security

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: IT 4823 and IT 4323

This course introduces core knowledge and skills required to develop and design innovative IoT solutions. Students will analyze the challenges, apply appropriate patterns for user-interaction and learn about trends and characteristics in IoT. In addition, students will evaluate the security design of a suite of IoT-connected products.

IT 4983: IT Capstone

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Senior standing which includes 40 hours of IT credits.

Students work in teams to develop or implement a real-world IT solution integrating the knowledge acquired in preceding IT courses. Components that are emphasized include technical design, research, documentation, project management, leadership, team work, and communication skills. The final result will be an IT solution addressing a typical business or organizational need such as data management or networking, which will be evaluated by faculty members, Industrial Advisory Board members, and project owners.

WBIT 1100: Introduction to Information Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is an introductory course in information technology. Topics include foundation in hardware, software, data, and an overview of the use of information technology in organizations. Additional topics include structured programming techniques, systems development, database design and networking, with an emphasis on appropriate business ethics, interpersonal skills and team building.

WBIT 1310: Programming and Problem Solving

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1113 and WBIT 1100

This course helps students to develop basic problem-solving skills using the Java programming language. Students are introduced to fundamentals of Java programming language with emphasis on primitive data types, control structures, methods, arrays, classes, objects, abstraction, inheritance and polymorphism. Students learn basic techniques of good programming style, design, coding, debugging, and documentation. Students are able to create programs to solve basic practical problems.

WBIT 2000: The Enterprise and IT

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course will look at the structure and management of an information technology infrastructure. From the management aspect, the course will touch on principles and practices of managing both people and technology to support an organization. The course will emphasize how to make an information technology infrastructure effective, efficient, and productive. The management of hardware, software, data, networks and other supporting IT functions will be studied.

WBIT 2300: Discrete Mathematics for IT

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1113 or MATH 2240

Discrete (as opposed to continuous) mathematics is of direct importance to the fields of Computer Science and Information Technology. This branch of mathematics includes studying areas such as set theory, logic, relations, graph theory, and analysis of algorithms. This course is intended to provide students with an understanding of these areas and their use in the fields of Computer Science and Information Technology. The general idea of the course is to introduce terms and concepts that are useful in describing and explaining ideas, concepts, and models in the computing disciplines, such as Information Technology. For instance, logic allows for precise communication, and proof methods may be viewed as formal ways of creating and making arguments to support a position or a hypothesis. Sets, functions, relations, matrices, graphs, and trees, etc. are all tools useful in describing and communicating the structure of data, concepts, and algorithms. As your instructor, I believe the usefulness of the ideas from this course is not limited to the computing and information disciplines, but extends to other real-life situations involving precise communication, thinking, and arguments.

WBIT 2311: Programming and Problem Solving II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The emphasis of this course is on advanced programming techniques in Java including GUI's, software reuse through component libraries, recursion, event-driven programming, database processing, file processing, and exception handling. Students are able to create event-driving, graphical programs or text-based programs solving practical problems incorporating databases and external files.

WBIT 3010: Technical Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course covers workplace communication at the intermediate level. Topics include audience analysis, research proposal and report writing, document and visual design, editing and presentation design.

WBIT 3110: Systems Analysis and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 1310, WBIT 2000

This course introduces the fundamental principles of the design and analysis of IT applications. In this course, students will learn to apply the tools and techniques commonly used by systems analysts to build

and document IT applications. Classical and structured tools for describing data flow, data structure, process flow, file design, input and output design, and program specification will be studied, as will object-oriented techniques.

WBIT 3111: Information Technology Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CSE 3153 or (WBIT 3110 and WBIT 3010)

Project management techniques and tools as applied to information systems projects including resource and personnel management and allocation, product testing, scheduling, and project management software. Students will study examples of both successful and unsuccessful projects and apply lessons learned to a class project.

WBIT 3200: Database Design, Development and Deployment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 2311

This is an advanced course in database design, development and deployment. Course emphasizes database design, drawing distinctions between data modeling and process modeling using various modeling techniques including Entity-Relationship Modeling, Object Modeling and Data Flow Diagramming; database development using the relational model, normalization, and SQL; database deployment including control mechanisms, forms, reports, menus and web interfaces. Additional topics include procedures, functions, packages and triggers. Students will design, create and process a database to demonstrate competency in the course content.

WBIT 3400: Introduction to Multimedia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 1100

This course covers the basic design principles and tools for creating and editing digital media elements. Examples of these elements include graphics, animation, audio, video, virtual space and simulation.

WBIT 3410: Web Applications Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 1100 or WBIT 1310

The course provides a survey of techniques and tools for developing basic web pages for delivery of text and graphic information; focus on page markup languages, client-side scripting, page design principles, page layout techniques, markup language syntax, and page styling methods.

WBIT 3500: Architecture and Operating Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 2300

This course introduces students to the architectures of computer systems and the operating systems that run on them. It explores and gives experience with some common computer designs and operating systems. Topics include basic computer architecture, instruction set architecture, memory, memory

management, processes, and file systems.

WBIT 3510: Data Communications and Networking

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 3500 "C" or Better

This course covers computer network and communications concepts, principles, components, and practices; coverage of common networking standards, topologies, architectures, and protocols; design and operational issues surrounding network planning, configuration, monitoring, troubleshooting, and management.

WBIT 3600: Introduction to E-Commerce

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The emphasis of this course is on basic principles and practices of E-business and E-commerce. Topics include infrastructures and applications of E-commerce, E-Tailing, E-Marketing, advertisement, B2B, B2C, C2C, E-Government, M-Commerce, E-Learning, electronic payment systems, security, and legal issues. Students also learn to build simple dynamic E-commerce sites using server-side scripting.

WBIT 4020: Professional Practices and Ethics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course covers historical, social, economic and legal considerations of information technology. It includes studies of professional codes of ethical conduct, philosophy of ethics, risk analysis, liability, responsibility, security, privacy, intellectual property, the internet and various laws that affect an information technology infrastructure.

WBIT 4030: Senior Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Senior Standing and Advisor Approved

A capstone course for WebBSIT majors, students will be expected to complete a final team or individual project. The project may be an approved industry, internship or a project developed and designed by faculty of the WebBSIT. Students will apply skills and knowledge from previous WebBSIT courses in project management, system design and development, digital media development E-commerce, database design, and system integration.

WBIT 4112: Systems Acquisition, Integration and Implementation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Most IT applications used by organizations are configured from components that have been purchased from third-party vendors. This includes both hardware components and, increasingly, software components. In this course, students will study the component acquisition process, and methods and techniques for integrating these components into an existing IT infrastructure.

WBIT 4120: Human-Computer Interaction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 2311 and WBIT 3400

The emphasis of this course is on fundamentals of human-machine interfaces, both cognitive and physical. Learning styles and effects of short-term memory on cognition and reaction will affect hardware and software development. Students will design a prototype interface.

WBIT 4520: Information Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 3500

Corequisite: WBIT 3510

This course is an introduction to information assurance and security in computing. Topics include computer, network (distributed) system and cyber security, digital assets protection, data backup and disaster recovery, encryption, cryptography, computer virus, firewalls, terrorism and cyber crimes, legal, ethical and professional issues, risk management, information security design, implementation and maintenance.

WBIT 4601: Customer Relationship Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 3600 and WBIT 3200

The use of IT applications has allowed many organizations to collect large amounts of data on their clients and to use such data to improve the relationships with their customers. In this course, students will study customer relationship management systems, including the reasons for their emergence, the functionalities that they provide and the issues one would have to face to successfully introduce and Customer Relationship Management System into an organization.

WBIT 4602: IT Strategy Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 3600, WBIT 3200, WBIT 3111, and WBIT 4120

Students will participate in research and discussion on a topic of current interest. A term paper on the topic (or related subtopic) is required. A designated faculty member will select the topic in advance based on his/her expertise and lead the seminar.

WBIT 4610: IT Policy and Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WBIT 3600

This course will focus on the legal implications of conducting business in the information technology age. Topics will include current understanding of internet contracts, copyright, trademark and patent law. Further, this course will examine cutting-edge cases relating to security, e-commerce, and emerging ethical issues and trends.

Instructional Technology

ITEC 3100: Improving Learning with Technology in Elementary Classrooms

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Teacher candidates learn to use technologies to promote student achievement in elementary content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally.

ITEC 3200: Improving Learning with Technology in Middle Grade Classrooms

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Teacher candidates learn to use technologies to promote student achievement in middle school content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally. Twenty field experience hours are required.

ITEC 3300: Improving Learning with Technology in High School Classrooms

3 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Teacher candidates learn to use technologies to promote student achievement in high school content area and technology literacy standards. Special topics include using technology to improve students' English language learning, to assess student learning, and to differentiate instruction. Candidates also learn to manage their digital activities in ways appropriate for a professional educator; advocate for students without beyond-school access; and teach K-12 students how to use technology safely, ethically, and legally. Forty-five field experience hours are required.

Insurance

INS 4500: Principles of Risk Management and Insurance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an introduction to the identification of risks and their management. Topics will include fundamental life, health, retirement, property and liability exposures and their management through avoidance, control, retention or transfer. The characteristics of life, health, property and liability insuring devices are also covered.

Integrated Science

ISCI 2001: Life and Earth Science

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in SCI 1102

Life and Earth Science Concepts defines science, examines how science is done, and develops an understanding of fundamental concepts in biology, geology, and meteorology. Laboratories will emphasize experimental design and data analysis. Course is primarily for early grades and middle education majors, and cannot be used for credit towards a degree in Biology programs.

Notes: Not acceptable for use as General Education requirement.

ISCI 2002: Physical Science

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in SCI 1102 or equivalent.

Physical Science defines science, examines how science is done, and develops an understanding of fundamental concepts in astronomy, chemistry and physics. Laboratory experiences will emphasize experimental design, data analysis, and inquiry methods. Course is intended for early grades education majors. Cannot be used for credit towards a degree in Biology programs.

Notes: Not acceptable for use as General Education requirement.

Interactive Design

INDS 3000: Visual Design: Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 2170

This course introduces students to contemporary visual design theory with an emphasis on user-centered design in digital environments. The focus here is teaching designers-in-training theories of user-centered visual design as it relates to the creation of interactive designs. Students read and write about visual design theory in addition to producing creative visualizations of theory to help explain complex concepts.

INDS 3100: Visual Design: History

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: INDS 3000

This course explores various historical approaches to visual design. Students learn about designers associated with various movements. This class is meant to expand the historical knowledge of students who see themselves as designers. Students read and write about techniques and approaches used by select designers before applying this new knowledge set to an interactive design project.

INDS 3150: Visual Design I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150, ART 2550, and INDS 3000

In this project-based class, students put the knowledge and skills learned in previous studio classes into practice through teacher-proposed projects related to digital visual design. This class focuses on creative projects based on teacher assessment. The focus of this class is to expand your knowledge of digital visual design through experiential learning.

INDS 3230: User Interface Design I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ART 2150, ART 2550, and INDS 3000

In this course students build upon their knowledge of design theory by focusing on user interface design. This class will cover important user interface design principles—visual design, learn-ability, visibility, error prevention, and efficiency—in addition to touching on the human capabilities that motivate them—perception, motor skills, color vision, attention, and human error.

INDS 3250: Information Visualization: Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 2170

This course provides students with the theoretical foundations necessary to understand information visualization by focusing on how information is used to make sense of complex data. Students examine the social implications of visual information in the form of icons, page layouts, displays, diagrams, charts, and maps.

INDS 3300: Ethnography for Designers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: INDS 3000

This class engages in a qualitative analysis of the relationship between digital technologies and end users. In doing so, this course exposes designers-in-training to ethnographic approaches as a way to understand and empathize with end users, a core feature of user experience design. Students read anthropological texts and apply this knowledge to ethnographies related to understanding end users.

INDS 3350: Information Visualization I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: INDS 3250, and (INDS 3150 or DWMA 3430), and DWMA 3800

This course provides students with the foundations necessary to create effective information visualizations. In doing so, this class merges visual design with information design. Students work on visual design projects in addition to studying front-end programming by learning Processing as a tool to create effective visualizations.

INDS 3398: Internship

0 Class Hours 0 Laboratory Hours 1-9 Credit Hours

Prerequisite: 28 credit hours completed in Area F and Upper Division major requirements, approval of the Interactive Design Coordinator and Department Chair.

This course is an opportunity for students to apply principles and techniques of interactive design in a specific organization. Learning is experiential and must supplement, not duplicate, learning in the classroom. The student is responsible for finding an internship, but the program helps in the effort. The student submits a written proposal describing the internship according to program guidelines. Each internship is monitored by the student's advisor.

INDS 4150: Visual Design II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: INDS 3150

In this project-based class, students continue their growth as visual designers by working on student-driven projects related to visual design. The focus of this class is to expand your knowledge of digital visual design through experiential learning.

INDS 4230: User Interface Design II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: INDS 3230

This course builds upon student knowledge learned in User Interface Design I. Focusing more specifically on the human capabilities that motivate users—perception, motor skills, color vision, attention, and human error—the course explores user experience theories and principles as they relate to student design projects.

INDS 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course focuses on specific topics of an advanced nature not in the regular course offerings that relate to specific student needs.

INDS 4490: Special Topics in Interactive Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course consists of selected special topics of interest to faculty and students.

INDS 4700: Visual Design: Senior Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 21 credit hours in Upper Division major requirements and Upper Division electives.

The course is designed to allow students to create a semester-long senior project. Students may work on any type of digital design-oriented project toward the development of their portfolio. This course gives students the space and time to create exceptional work that synthesizes knowledge learned in previous classes.

Interdisciplinary Studies

CLST 3398: Cultural Studies Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval by Internship Coordinator

A structured off-campus experience in a supervised setting that is chosen in relation to the student's focus and interests in one of the interdisciplinary programs in the College of Humanities and Social Sciences. Students will meet with the internship coordinator to develop an appropriate plan that will lead to the writing of a research-oriented paper or research project. 100 hours per semester required at internship site.

IDS 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 0099 and READ 0099, if required.

This lower-division course includes special topics of an interdisciplinary nature offered on a rotating basis.

INTS 1198: Introduction to Integrative Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is a portfolio-based course focusing on the skills necessary for success in the INTS major and beyond. In this course students will learn about the field of integrative studies from historical, theoretical and practical vantage points. Students will apply their knowledge to create an integrative studies degree plan and portfolio.

INTS 2298: Integrative Studies Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course will provide students an introduction to integrative research methods to address interdisciplinary issues. Students will utilize multiple areas of knowledge and modes of inquiry to develop interdisciplinary thinking, learning and problem solving by developing an integrative interdisciplinary research project.

INTS 300I: Integrations: Diversity, Inclusion, and Equity in the United States of America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

In this course, we will use interdisciplinary methods and resources to explore the theoretical, practical, and ideological dimensions of diversity, inclusion, and equity in the United States of America.

INTS 3398: Integrative Studies Internship

3 Class Hours 0 Laboratory Hours variable 0-9 Credit Hours

Prerequisite: Completion of 60 credit hours

This course provides students the opportunity to apply their theoretical knowledge, communication skills, and emerging professionalism in a particular work environment. The coursework includes class discussions, group and individual activities, class presentations, and documentation of internship experience. The course is designed to provide applied learning experiences that build upon prior coursework and offers opportunities for integrated and reflective learning.

INTS 4400: Directed Study in Integrative Studies

0 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: 3.0 GPA; approval of program director

Course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. Course may include original research projects and/or practicum experiences.

INTS 4490: Special Topics in Integrative Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor.

This upper-division course includes special topics of an interdisciplinary nature offered on a rotating basis.

INTS 4498: Senior Seminar in Integrative Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 90+ credit hours.

This is a capstone course providing a structure for seniors to bring closure to their undergraduate experience while preparing for the transition from the university to the workplace or further academic study. In this course, students develop a research project drawing on the academic areas emphasized within their Integrative Studies degree plan. This course is a requirement for all Integrative Studies majors.

ISD 200I: Introduction to Diversity and Social Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course is required for students pursuing an ISD Certificate. The course introduces students to global theories and practices of diversity and social justice with a focus on 20th century social movements in the US. It addresses the roots of interdisciplinarity through prominent scholars concerned with diversity and social justice. Students learn about social movements that have had a significant impact on our own time, including women's liberation and anti-globalization.

ISD 3333: Year of _____ in Interdisciplinary Context I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course helps students develop a holistic understanding of a particular country/region. Offered in conjunction with KSU's "Year of" series, students gain an in-depth appreciation for the country by examining its geography, social structures, histories, philosophies, religions, politics, economics, literatures, films, arts, cultures, etc. It aims to break down stereotypes and promote a richer, more complex sense of place and identity. Important recurring themes in this course include identity formation, social justice and community engagement.

ISD 3334: Year of _____ in Interdisciplinary Context II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course helps students develop a holistic understanding of a particular country/region. Offered in conjunction with KSU's "Year of" series, it emphasizes contemporary issues as students examine the country's geography, social structures, histories, philosophies, religions, politics, economics, literatures, films, arts, cultures, etc. It aims to break down stereotypes and promote a richer, more complex sense of place and identity. Important recurring themes in this course include identity formation, social justice and community engagement.

ISD 3398: Interdisciplinary Studies Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of internship coordinator

This course offers students a structured experience in a supervised setting chosen in relation to students' interests. Students meet with the internship coordinator to develop an appropriate plan, which leads to the writing of research project. Students will demonstrate an ability to apply their knowledge of diversity and community engagement to current situations, issues, or problems in a community to which they are connected.

ISD 3399: ISD Certificate Colloquium

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Declaration of the Certificate and ISD 2001

Corequisite: ISD 3398: Internship

The Interdisciplinary Studies Colloquium course provides a capstone experience for students pursuing an ISD Certificate. The course provides students pursuing a certificate a community forum for discussing civic and community engagement projects developed through their service internships. Students examine interdisciplinary perspectives on knowledge and diversity, engage in activities beyond the classroom, and participate in a discussion forum. The course should be taken concurrently with the ISD Internship.

ISD 4490: Special Topics in Interdisciplinary Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This upper-division course includes special topics of an interdisciplinary nature offered on a rotating basis.

STS 1101: Science, Technology, and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course provides students with the knowledge and tools necessary to critically examine the development and integration of science, technology, and society. The course seeks to help students better understand the world in which they live, the broader implications of their major course of study, and the complex social, ethical, and moral choices presented by modern science and technology in human relationships.

STS 4000: International Issues in Science and Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Examines the technical, social and moral issues raised by current international advances in science and technology. Places emphasis on comparative studies by examining a series of topics, each from the perspectives of a variety of nations.

STS 4400: Topical Studies in Science and Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Examines the technical, social and moral issues raised by a particular issue of current concern in international science and technology. Students develop technical understanding, historical perspective and current events literacy relevant to the topic explored in a given term.

International Studies

EURO 3234: Introduction to the European Union

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The purpose of the course is to introduce students to the European Union (EU). The course traces the development of the EU from its origins in the 1950s to the present day. Student will explore the EU's governing institutions, including their structure and relationship to one another. Students will be introduced EU policy-making processes. Students will use this knowledge of structures and processes to explore current EU policies and issues, including EU-USA relations.

EURO 4130: EU Law & Legal Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course focuses on a study of EU legal institutions and processes in the context of international law, and in comparison to those of the United States. Topics include the treaties that provide the legal basis of the EU; the body of statutory law enacted by the Parliament, the Council, and the Commission; the judicial decisions adjudicated by the Court of Justice; and finally, the administrative rulings issued by the European Ombudsman.

EURO 4160: Federalism & Multilevel Governance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The course exposes students to the political development of political structures in the European Union. The course will address in depth elements and principles of federal political systems. It explores the progressive development of federal type structures in European Union political structures. To emphasize the salience of such developments, the course compares EU-style federalism with federal structures and processes found in the United States.

EURO 4230: Doing Business in the EU

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course focuses on political institutions and legal environment that impacts the conduct of business in the European Union. It examines the business environment for domestic and international firms and on how political decisions affect the business environment. It will show how some of the differences are born of economic factors relating to the functioning of the single market, while others are associated with the cultural heterogeneity

EURO 4260: European Monetary Union

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines the origins and development of European Monetary Union (EMU). It examines the economic and political reasons for EMU, the key decisions and steps in its creation, and its governing structures. We explore eurozone crises, including major events and developments, key causes and explanations, and the responses of European Union (EU) member states and institutions. The course concludes by exploring the consequences and implications of EMU for the EU and for Transatlantic relations.

EURO 4330: EU Science & Technology Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This class is an examination of EU science and technology policy compared to that of the United States. The course examines how governments can encourage scientific and technological innovation and whether government can (or should) try to limit or control technological innovation. Historical contexts as well as current trends will be examined, with specific emphasis on policy outcomes.

EURO 4430: EU Environmental Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines the politics and policy-making processes associated with environmental policy in the European Union. Students will explore the historical development of EU environmental policy (EEP), identify the principle actors involved, and inquiry into the modes of governance applied. The course uses concrete empirical cases to illustrate core concepts and to provide a historical and developmental perspective. Principal emphasis is given to analyzing and understanding politics and political processes and in evaluating policy effects.

EURO 4530: EU Social Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines the politics and policy-processes associated with social policy in the European Union. Students will trace the historical development of the EU's role in social policy, identify the principle actors involved, and explore the variety of social welfare models found among EU states. The course uses concrete empirical cases to illustrate core concepts. Principal emphasis is given to analyzing and understanding politics and political processes and in evaluating policy effects.

EURO 4630: EU Communications Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines politics and policy-making as it pertains to broadcasting, voice telephony & the internet in the European Union. The course begins by examining the history of EU communications policy. It then explores policy developments and how successive enlargements have impact policies and practices. The course concludes by examining the future of EU policy in this issue domain.

EURO 4730: EU Foreign Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The course explores the challenges facing the European Union as it attempts to pursue a more integrated and coherent common foreign policy. Students will examine the evolution of the EU's role in foreign policy. To do this, students will identify relevant EU governance institutions and explore the manner in which these institutions interact with key foreign policy institutions in member states. Students will explore these relationships with specific reference to economic, security and environmental policy

EURO 4760: EU-US Foreign Relations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The course examines the relationship between the European Union and the United States. Students

explore the breadth and depth of the transatlantic cooperation across an array of issue domains. Students also explore areas where the parties disagree, sometimes significantly. Where differences exist, students examine the sources of transatlantic tensions, what has been done to address them, and consider whether disagreements can be resolved. Issues addressed include trade, regional and global security, terrorism, and the environment.

EURO 4830: EU in Comparative Perspective

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course examines the European Union in comparative perspective. Students will explore how problems of regional governance are addressed in the EU as well as in other regions. Students will look both at institutional structures and policy processes. Students will make specific comparisons to the African Union, MERCOSUR, NAFTA, and ASEAN. Further, students will explore whether meaningful differences exist between regional organizations found in the developed world and those found in the Global South

Italian

ITAL 1001: Introduction to Italian Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements

Introduction to Italian language and culture stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Italian culture.

Notes: Not open to native speakers of Italian.

ITAL 1002: Introduction to Italian Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 1001 or permission of the instructor.

Introduction to Italian language and culture, part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Italian culture.

Notes: Not open to native speakers of Italian.

ITAL 2001: Intermediate Italian Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 1002, or permission of the instructor.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of Italian.

ITAL 2002: Intermediate Italian Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2001 or permission of the instructor.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in the language.

Notes: Not open to native speakers of Italian.

ITAL 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2001 or the equivalent.

This course emphasizes skill development and refinement in the areas of critical reading and writing in Italian. Designed to give students extensive experience in reading and writing in Italian, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

ITAL 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2002 or permission of the instructor.

Stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

ITAL 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2002 or permission of the instructor.

General review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

ITAL 3304: Literature and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3200 or permission of the instructor.

This course is an introduction to Italian literature and culture from the origins to 1848. Students learn about literary and artistic movements as well as cultural issues. Students also work across the curriculum, focusing on interdisciplinary issues within the Italian literary context and developing their competence in critical analysis of Italian cultural and literary issues from a global perspective. Readings and discussions are in Italian.

ITAL 3305: Literature and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2002 or permission of the instructor.

Introduction to Italian literature and culture from 1848 to the present. Students examine literary and artistic movements as well as cultural issues. Students also work across the curriculum, focusing on interdisciplinary issues and developing their competence in critical analysis of Italian cultural and literary issues from a global perspective. Readings and discussions are in Italian.

ITAL 3390: Upper-division Study Abroad in Italian

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or Senior status and permission of the department chair.

This course fulfills the study abroad elective for the minor in Italian Studies. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the minor in Italian Studies and/or for the degree in Modern Language & Culture.

ITAL 3398: Internship

1-9 Credit Hours

Prerequisite: ITAL 3302 and ITAL 3303 or permission of the instructor.

Supervised, credit-earning work experience of one semester requiring use of Italian in the work place. Prior approval by department coordinator and internship supervisor is required.

ITAL 4400: Directed Study

1-3 Credit Hours

Prerequisite: ITAL 2002 or permission of the instructor.

Covers special topics and seminars external to course offerings that allow a student to work individually with an instructor.

Notes: Requires prior approval by instructor and department chair.

ITAL 4402: Contemporary Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3303 and ITAL 3305 or permission of the instructor.

An examination of the historical, social and political contexts of the contemporary Italian experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature.

Notes: Readings and discussion in Italian.

ITAL 4404: Commercial Italian

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 2002 or permission of the instructor.

This course is an in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the Italian-speaking world. Readings and discussion are in Italian and in English.

ITAL 4434: Topics in Language Literature and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3303 and ITAL 3306 or permission of the instructor.

An exploration of a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Italian culture.

Notes: Readings and discussions in Italian.

ITAL 4456: Advanced Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3303 or permission of the instructor.

This course is an advanced study of grammar from a linguistic perspective. It provides an overview of phonetics, phonology, morphology, and syntax. The course exposes students to dialectical variations of the Italian language and stresses development of oral proficiency. The course is taught in Italian.

ITAL 4490: Special Topics in Italian

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3302 and ITAL 3303 or permission of the instructor.

Special topics relevant to the study of the Italian society.

ITAL 4499: Senior Seminar

3 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ITAL 3304 or ITAL 3305 and permission of the instructor.

This capstone course designed to synthesize and connect the students' prior academic experiences in the major and related fields of study. Students prepare a reflective essay and a research paper to present to the faculty of the Department of Foreign Languages. Papers and presentations are in Italian.

Japanese

JPN 1001: Introduction to Japanese Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements

Introduction to Japanese language and culture stressing progressive acquisition of effective communications skills in both the written and spoken language and an understanding of the practices and products of Japanese culture.

Notes: Not open to native speakers of Japanese.

JPN 1002: Introduction to Japanese Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Japanese, or JPN 1001, or the equivalent.

Introduction to Japanese language and culture, part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Japanese culture.

Notes: Not open to native speakers of Japanese.

JPN 2001: Intermediate Japanese Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Japanese, or JPN 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways.

Notes: Not open to native speakers of Japanese.

JPN 2002: Intermediate Japanese Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Japanese or JPN 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities.

Notes: Not open to native speakers of Japanese.

JPN 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JPN 2002 or the equivalent.

This course is a study of selected readings of signs, news, and literary and cultural works to increase vocabulary, enhance grammar skills, and develop reading skills. This course is designed to give students extensive experience in reading Japanese.

JPN 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JPN 2002 or the equivalent.

This course emphasizes expansion of effective listening comprehension and speaking skills in Japanese through culturally and linguistically appropriate activities. Communicative tasks are limited to those in uncomplicated and straightforward social situations.

JPN 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JPN 2002 or the equivalent.

This course is a general review of grammar and composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

JPN 3304: Readings in Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: JPN 3200 or the equivalent.

This course introduces students to selected readings in Japanese culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Japanese context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Japanese and discussions are in Japanese and English.

Korean

KOR 100 I: Introduction to Korean Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements

This course introduces students to Korean language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Korean culture. This course is not open to native speakers of Korean.

KOR 1002: Introduction to Korean Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Korean or KOR 1001 or the equivalent.

This course is an introduction to Korean language and culture, Part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Korean culture. This course is not open to native speakers of Korean.

KOR 200 I: Intermediate Korean Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Korean or KOR 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways. This course is not open to native speakers of Korean.

KOR 2002: Intermediate Korean Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Korean or KOR 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. This course is not open to native speakers of Korean.

KOR 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: KOR 2002 or the equivalent.

This course emphasizes skill development and refinement in the areas of critical reading and writing in Korean. This course is designed to give students extensive experience in reading and writing in Korean.

KOR 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: KOR 2002 or the equivalent.

This course emphasizes expansion of effective listening comprehension and speaking skills in Korean through culturally and linguistically appropriate activities. Communicative tasks are limited to those in uncomplicated and straightforward social situations.

KOR 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: KOR 2002 or the equivalent.

This course is a general review of grammar through composition and other writing activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

KOR 3304: Readings in Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: KOR 3200 or the equivalent.

This course introduces students to selected readings in Korean culture, through which they expand their vocabulary and learn new grammar. Students also learn about cultural issues within the Korean context and develop their competence in critical analysis of the issues from a global perspective. Readings are in Korean and discussions are in Korean and English.

KSU Seminars

ICT 2101: Information and Communications Technology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is a digital literacy course that explores how computers and the Internet have revolutionized society and become an integral part of every profession. This course provides the foundation for students to become informed and creative problem-solvers capable of using and envisioning the potential of digital technologies. Students will learn to apply fundamental principles of computing, including but not limited to digitization, digital logic, and algorithmic thought, to enhance their skill in the use of digital applications, create digital resources, and assess digital assets. Other topics include digital security and privacy, the implications of digital disruption, and careers in the digital age.

KSU 1101: First-Year Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Prerequisite: Students with 30 or more credit hours are not eligible to enroll.

This course is a first-year seminar designed to help students develop college-level skills for academic success by focusing on life skills, strategies for academic success, connecting with campus and community, and foundations for global learning. This course guides student through the transition from high school to higher education. It satisfies the first-year curriculum requirement by meeting the four learning outcomes of the first-year seminars.

KSU 1111: Tomorrow's World Today

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Students with 30 or more credit hours are not eligible to enroll.

This course examines research-based projections of what the world will look like in 25 years due to the influence of seven global challenges, specifically population, resource management, technology, information/knowledge, economic integration, conflict, and governance. Students will analyze the impact of these issues on their own lives. This course satisfies the first-year curriculum requirement by meeting the four learning outcomes of first-year seminars.

KSU 1121: Be the Change

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required. Prerequisite: Students with 30 or more credit hours are not eligible to enroll.

In this course, students work to make a difference in the world through research- and skills-based community engagement projects. Students investigate a world problem, find supporting evidence of the problem's scope, and offer solutions that culminate in a final community project where academic and life skills relevant to multiple disciplines and careers are applied. This course satisfies the first-year curriculum requirement by meeting the four learning outcomes of first-year seminars.

KSU 1200: First-Year Seminar: Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Prerequisite: Students with 30 or more credit hours are not eligible to enroll.

This course enhances first-year students' leadership skills and cultivates their knowledge of leadership theory and application. Through experiential learning projects, students practice leadership on campus and in the community while developing life skills, connections with the university, academic success strategies, and global perspectives. This course satisfies the first-year curriculum requirement by meeting the four learning outcomes of the first-year seminars.

KSU 2000: Transfer Student Seminar

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Transfer students with fifteen or more earned credit hours may take this course in their first semester at KSU.

This course is designed specifically for students who have transferred to KSU. This course emphasizes personal and academic planning and development, major and career exploration and preparation, and campus and community engagement.

KSU 2100: Sophomore Career Exploration Seminar

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: 30 or more credit hours

The Sophomore Career Exploration course is designed to introduce students to the skills and strategies needed to navigate the transition from the course work in their academic major to their chosen career. Designed specifically for sophomore-level students, this course focuses on career and internship options, emphasizes transferrable skills, and helps students develop a better personal understanding of their personal work values.

KSU 2290: Special Topics

1-3 Credit Hours

Prerequisite: Varies depending on topic.

Selected special topics relevant to the mission of University College.

KSU 4401: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours earned and above.

This institutional capstone course provides a structure for seniors to bring closure to their undergraduate experience while preparing for the transition from the university to the community at large. Within a structured learning community from a variety of disciplines, students will access the meaning of their undergraduate experience and develop an understanding of their role as alumni and productive citizens of the work force, community, state, nation, and the world. Through the preparation of a reflective

portfolio, involvement in a service-learning project, and a critical discussion of their short and long term logistical goals, the students will prepare for the post-university experience.

Latin

LATN 1001: Introduction to Latin Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements

Introduction to Latin stressing progressive acquisition of grammar, composition, prose translation and pronunciation.

LATN 1002: Introduction to Latin Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Latin or LATN 1001 or the equivalent.

Introduction to Latin, part II, stressing continued progressive acquisition of grammar, composition, prose translation and pronunciation.

LATN 2001: Intermediate Latin Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Latin or LATN 1002 or the equivalent.

Review of Latin grammar and syntax. Prose translations from selected prose authors such as Livy, Caesar, Tacitus, and Sallust.

LATN 2002: Intermediate Latin Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Latin or LATN 2001 or the equivalent.

Continued refinement of grammar and reading skills through the study of prose and poetry from the Golden Age of Latin Literature.

LATN 3500: Topics in Latin Poetry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: LATN 2002 or permission of the instructor.

In this course, students analyze Latin poetry, poetic syntax, meter, and style through readings from selected poets. The course content focuses on one or more of the following poets: Catullus, Vergil, Ovid, Horace. Students review Latin grammar and syntax, build vocabulary, and develop a variety of reading strategies. Readings are Latin; instruction is in English. The course may be repeated once for credit with permission of the department chair with different content.

LATN 4490: Special Topics in Latin

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: LATN 2002 or permission of the instructor.

Selected topics of special interest to faculty and students.

LATN 4500: Topics in Latin Prose

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: LATN 3500 or permission of the instructor.

In this course, students read and analyze Latin prose by various writers. The course content focuses on one or more of the following prose writers: Livy, Caesar, Cicero, Tacitus, Propertius, Tibullus, or Seneca. Students review Latin grammar and syntax, build vocabulary, and develop a variety of reading strategies. Readings are in Latin; instruction is in English. The course may be repeated once for credit with permission of department chair when content differs.

Latin American/Latino Studies

LALS 1102: Understanding Latin America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

In this course students critically approach Latin America/Latino-US from interdisciplinary perspectives while analyzing texts within a social, political, cultural, economic, historical, artistic, and geographical context. The concept of a global understanding of Latin America within the notion of a hemispheric America is emphasized, as well as how different nations relate to one another in terms of identity formation and statehood. Issues of representation in the context of immigration and multicultural relations are also studied.

LALS 3770: Latin American Cinema

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course critically examines the representation of social issues and identity formation in films from Latin America, as well as how they are related to the globalization of American popular culture. This course also focuses on the social and political conditions that affect film-making in the region.

LALS 3780: Trends in Latin American/Latino Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course focuses on current trends, issues, problems, and strategies in the field of Latin American and Latino Studies. Particular attention is paid to how socio-demographic variables, such as race, gender, class, religion, and/or ethnicity impact the issues facing the Latino/Hispanic populations in Latin America and the United States.

LALS 4490: Special Topics in Latin American/Latino Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: LALS 1102

This course is a study of selected special topics of interest that are relevant to the field of Latin American and/or Latino Studies. Course may be repeated with a change in content. Students may use the course as an elective towards the Minor in Latin American/Latino Studies. Depending on the content, the course can also serve as an elective course for Minors in African/African Diaspora Studies, American Studies, or Gender and Women's Studies.

Leadership Studies

LDRS 2000: Finding the Leader Within

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

In this course students are introduced to leadership concepts and practices. Students observe and practice skills and competencies associated with ethical, successful leadership. Students discover and develop their own personal leadership styles and philosophies, learning how to balance tasks and relationships and overcome obstacles. Students identify their leadership strengths and weaknesses and create and implement strategies to improve their leadership skills.

LDRS 2100: Leadership & Historic Social Movements

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

Drawing on examples from around the world, this course focuses on an examination of the leadership process: individuals influencing a group to achieve a goal in historic social movements. Students examine leadership within the historical, social, political, and cultural context of select social movements. This course facilitates the development and/or advancement of socially conscious, historically minded, and reflective thinking about leadership in a variety of settings.

LDRS 2200: Contemporary Leadership Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Learning Support or concurrent registration, if required.

In this course students are introduced to critical challenges, key contexts, and emerging trends of leadership. Students observe and practice skills and competencies associated with the dynamics of adaptive change, and the practices of authority and leadership. Students discover and develop how to engage in collective problem solving, and distinguish leadership from authority. Students identify and reflect upon current leadership practices and work together to create leadership strategies and innovations for future leadership practice.

LDRS 3000: Foundations of Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

History, theories and models of leadership are examined from an interdisciplinary perspective. Students begin to develop their own leadership identity and consider how their personality and leadership style affects group process. Other factors that affect leadership such as gender and culture are also explored. Interviews with and observations of leaders from a variety of disciplines help students better understand the ethical and practical applications of leadership.

LDRS 3100: Change and Conflict Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

In this course, students explore the relationship between leadership and the concepts of change and conflict in organizational and societal contexts. Students study phases of the change process, characteristics of change, and how personal leadership characteristics affect change. Students also examine and discuss the qualities effective leaders demonstrate during change processes and strategies to manage conflict. Finally, students consider how they respond to change and conflict as they develop their personal leadership practices.

LDRS 3200: Leadership in a Global Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Leadership is examined through an interdisciplinary, global lens. Students learn how cultural context affects leadership style, conflict negotiation, and ethical decision making; examine how leaders might impact culture; and develop their own multicultural awareness and competencies. Contemporary cases of how leadership varies depending on the cultural context in which one is leading are researched. Key geographical regions of the world will be analyzed from a leadership perspective, and an individual cultural experience highlighting the intersection of leadership and culture also occurs.

LDRS 3300: Leadership and Decision Making

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

In this course, leadership and decision-making are examined from multiple perspectives. Students learn the process of making a decision utilizing the WRAP framework. Other factors involved in the decision making process are explored and identified. The dynamics of the relationship between leadership and decision making are discussed and analyzed. Research of leaders helps students better understand the decision making process and the impact of decisions.

LDRS 3400: Service As Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Based on the Social Change and Servant Leadership models, students explore the connections between service and leadership. This course examines the differences between civic engagement, civic responsibility and social activism. Students participate in engagement projects within the community, attend social activism functions and develop and present projects geared toward social change. Students leave this course with an understanding of how servant leaders can impact their community.

LDRS 3500: How Not to Lead

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

In this course students define and explore unethical and ineffective leadership concepts and practices. Through the use of case studies and current events students identify circumstances and contexts in which bad leadership emerges. Students also identify the roles followers play in perpetuating negative leadership. Finally, students identify their own leadership style strengths and weaknesses to lay the groundwork for personal ethical and effective leadership practices.

LDRS 3600: Ethics in Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course examines leader's behaviors through an ethical lens and delves into the moral decision making process and the role of ethics in leadership. Based on analysis of case studies of current and historical events, students gain an understanding of ethical leadership decision making while touching on the theories of ethics and their application. Students can expect to focus on the importance of understanding ethics in a global environment.

LDRS 3700: Women in Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course makes connections and draw conclusions about leadership, particularly as it applied to women. Students will integrate leadership theory and experiences to understand the unique state and current thinking of women and leadership, including recent progress toward equal opportunity as well as address remaining challenges for this group.

LDRS 3800: Leading in Groups

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is designed to develop the student's knowledge of group processes, group development, and the influential role of leadership within each area. Students will come to understand leadership from an interdisciplinary, organizational perspective and apply this understanding in practical applications

throughout the semester.

LDRS 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: LDRS 3000, 3.0 GPA, approval of advisor, instructor, and department chair.

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. An LDRS Directed Study may include original research projects and/or practicum experiences that allow the student to gain in-depth exposure to the topic of leadership.

LDRS 4490: Special Topics in Leadership Studies

3 Class Hours 0 Laboratory Hours variable 1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

This course is a study of selected special topics of interest to faculty and students. Course may be repeated with a change in content.

Management

MGT 3100: Management and Behavioral Sciences

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: [(Grades of "B" or higher in (MATH 1160 or MATH 1190), ACCT 2100, ACCT 2200, ECON 2100 and ECON 2200) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course].

This course introduces students to the field of management, focusing on basic principles and concepts applicable to all types of organizations. The evolution of functional and behavioral aspects of management and organization theory are presented in the context of political, societal, regulatory, ethical, global, technological and demographic environmental forces.

MGT 3190: Business, Ethics, and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course examines the relationship between business and society and the role of ethics in employee and managerial decision-making and behavior. Using a stakeholder management approach, the course explores uses and potential abuses of business power on internal and external stakeholders. Models for integrating ethical concerns into business decisions are examined.

MGT 3200: Operations Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Generic modeling techniques are applied to the planning, operation and control of the production of goods and services. Topics include: quality control, facility location and layout, material requirements planning and project scheduling.

MGT 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

MGT 3398: Internship

1-9 Credit Hours

Prerequisite: Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency. A research paper is required to receive credit. For junior or senior students who wish to participate in an on the job experience in which they may apply their academic training. The work experience may not be with a current employer. The course will be graded on an SIU basis.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

MGT 3600: Introduction to International Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An introduction to the global business environment, this course examines the discrete and interactive effects of the geographic, historical, sociocultural, political/legal, economic and technological forces that shape international commercial activity and its consequences.

MGT 400I: Managing Organizations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Where, what, and how do managers manage? This course introduces students to the "world of a manager" and provides a framework for management majors. Starting with the big picture, students learn about the various external factors that impact organizations, structure, and culture. Internal factors including leadership, teaming, problem-solving and managing communications are also addressed.

Notes: MGT 400I and MGT 4160 cannot both be used. MGT 400I and MGT 4170 cannot both be used.

MGT 4002: Managing People

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 400I, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

People are an organization's most valuable assets. This course provides students with an understanding and capability to manage these assets (self and others) to support the goals of the organization. It covers the human resource practices and people management skills used to attract, motivate, develop, and retain employees. Students also develop self-management skills and personal career growth strategies to enhance their professionalism and employability.

Notes: MGT 4002 and MGT 4160 cannot both be used. MGT 4002 and MGT 4170 cannot both be used.

MGT 4003: Managing Projects

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 400I and (ECON 2300 or STAT 3125), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

In this course, students learn to complete organizational projects on time and on budget. This course introduces students to project management (PM) from both a process and project tool standpoint. Students focus on understanding project definition and scope, resource allocation, task dependencies and risk management. Students also learn how to use PM software in the context of managing a team project.

MGT 4004: Managing Your Company

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECON 2300, FIN 3100, MKTG 3100, MGT 3200, MGT 4002, and MGT 4003, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

In this course, students learn to develop a long-term vision and competitive strategy for a company. Students learn to balance short-term objectives with long-term strategic goals. They learn to recognize interactions among the internal factors (resources and processes) and external environments, and the impact of both on performance. Students also demonstrate their ability to make decisions, and to analyze, justify, and professionally communicate the results of those decisions.

Notes: MGT 4004 and MGT 4120 cannot both be used.

MGT 4122: Venture Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A course that applies the concepts of small business management, entrepreneurship and creativity to the analysis of complex business problems faced by new ventures and existing small businesses. Case studies will be used to develop students' ability to identify and solve problems. Work will continue on personal startup projects and business plans.

MGT 4123: Family Business Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course explores the unique challenges and opportunities involved in owning and/or managing a family business. By attending the class, students learn to identify and address challenges related to responsible ownership, succession, corporate governance, family governance, professionalization, and family office. Both family and non-family members' perspectives are explored and addressed.

MGT 4124: Franchise Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Franchise Management is an introduction to the field of franchising as it concerns the franchiser (the business who grants the business rights to franchisees), and the franchisee (the individual or business who obtains the rights to operate the franchised business in accordance with the chosen method to produce or sell the product or service). It covers the body of knowledge on how to expand an existing business through domestic or international franchising as well as how to analyze and decide how to buy

and manage a franchise.

MGT 4125: International Entrepreneurship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the role of the entrepreneur in creating new international business ventures. This course provides students with both a theoretical and practical understanding of new venture creation in the international marketplace, including extensions of domestic enterprises and new enterprises.

MGT 4130: Commercial Real Estate Ventures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course addresses the acquisition, development, operation, and disposition of commercial real estate properties, with a special emphasis on shopping centers. Dimensions of inquiry include: ethical decision making, specific legal requirements associated with real estate ventures, and stakeholder (developers, investors, local communities, and public sector) analysis.

MGT 4161: Organizational Communications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course develops student understanding of communication processes within organizations, increases ability to diagnose and deal with organizational communication problems, and enhances skills in using communication to improve individual, group, and organization-wide effectiveness.

MGT 4171: Employee and Labor Relations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 4002, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The study of employee and labor relations includes union organizing, collective bargaining, labor legislation, contract negotiation, grievance resolution, arbitration, and international labor movement issues. Alternative dispute resolution methods, cooperative labor/management policies and practices, and union-free work environments are covered.

MGT 4172: Compensation and Reward Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 4002, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Compensation systems and practices that attract, motivate, and retain employees are investigated in this course. Topical areas include wage and hour regulations, job evaluation, pay structure development, incentive systems, merit pay decision making, and strategic benefit systems design.

MGT 4173: Human Resource Selection

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 4002, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course focuses on the acquisition, selection, and placement of human resources to maximize organizational effectiveness. Topics include strategic human resources planning, EEO requirements, labor force forecasting, job analysis methods, recruitment practices, employee selection techniques, and testing procedures that increase employee-job fit.

MGT 4174: International Human Resource Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program OR student in a Coles College Partner Program that includes this course.

This course focuses on human resource management functions required to implement international or global strategy. Areas examined include international recruitment and selection, performance management, training and development, compensation, labor relations, management of expatriates and their repatriation, dealing with host country nationals, and career management in the international context. Special topics include human resource law and issues in specific countries outside the U.S. and managing a multicultural labor force in the U.S.

MGT 4185: Technology Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course focuses on the management of technologies within organizations. Specific topics include the management of innovation, technological development, research and development, the justification and strategic implications of new technologies, and the development of a technological strategy. The management of both manufacturing and information technologies will be emphasized.

MGT 4190: International Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course deals with the basic managerial functions in an international enterprise. It explores the theoretical and practical aspects of managing international business operations and deals with multi-cultural and global issues of managing the business expansion beyond the domestic market. It portrays the difficulties of managing enterprises that cross-national borders and have to deal with cultural diversity, and diversity in socio-political and economic systems.

MGT 4199: Strategic Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BUSA 4150, ECON 3300, FIN 3100, MGT 3100, MGT 3200 and MKTG 3100 and Admission to the Coles College Undergraduate Professional Program. This course is taken in the last or next-to-last semester in the B.B.A. program.

This course emphasizes an integrative, multifunctional, general management perspective of the organization and its long-term survival in a global economic environment. It builds the knowledge base and analytical skills required for managing a business enterprise. Components include situation analysis, strategy formulation, evaluation, and choice, as well as strategy implementation at different organizational levels, and under different contextual conditions. The course enables the refinement of the student's communication and presentation skills, as well as the interpersonal abilities necessary for accomplishing group tasks. Integrating multiple business disciplines, it serves as the capstone course in the business curriculum.

MGT 4200: Family Business Consulting

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course explores both consulting practices and the challenges faced in family business. In addition to introducing the concepts and tools in both these areas, the course provides real-world insights via interaction with family business owners and professionals from local and regional consulting firms. The course includes on-site visits to family businesses where students apply what they have learned in class and analyze problems and develop plans to assist these companies.

MGT 4400: Directed Study

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 3.0, ([Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration

Special topics of an advanced nature not in the regular course offerings.

MGT 4476: Contemporary Global Business Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100 and MGT 3600, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course deals with current practices in Global Business. It examines the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and offshored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage.

Notes: MGT 4476 and MKTG 4476 cannot both be used.

MGT 4490: Special Topics in Management

1-3 Credit Hours

Prerequisite: 60 credit hours with a minimum GPA of 2.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Selected topics of interest to faculty and students.

MGT 4700: Hospitality Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This survey course provides students with an understanding of the Hospitality Industry and the role it plays in the both the U.S. and global economies. This course provides an overview of hospitality management areas such as lodging, food service, travel, and entertainment and career opportunities in each area. The main goal of the course is to expose students to the hospitality industry and provide an understanding of the unique aspects of managing businesses in this industry.

MGT 4800: International Supply Chain Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course examines the key concepts of supply chain management, involving the flows of materials and information among all of the firms that contribute value to a product or service, from the source of raw materials to end customers. The course emphasizes the relationship between a firm and its supply chain partners: primarily the suppliers from whom it purchases its inputs and those who assist in the logistics and distribution of the products. The course has an international emphasis to reflect the trend of increasing partnerships with international suppliers, international transportation providers, and distributors in foreign markets. Supply chain management issues are addressed for both manufacturing

and service organizations.

MGT 4850: Managing Process Improvement

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course addresses leading-edge manufacturing theory and practice, including the just-in-time manufacturing philosophy, kanban production control systems, group technology, cellular manufacturing, the theory of constraints, the drum-buffer-rope production control system, and VAT analysis. This course extends knowledge beyond what is taught in traditional production and inventory management courses.

MGT 4860: Quality Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an in-depth study of the key concepts and practices of modern quality philosophies and techniques. The opportunities to add value through quality in all phases of business and product life cycles will be identified. Concepts and methods of statistical quality control will be presented.

MGT 4880: Service Operations Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3200, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The course will focus on developing a clear understanding of services from multiple perspectives. Students will define, diagnose, design, measure, control, and change services with the objective of improving quality and productivity. The course will address important service design issues, competitive issues unique to services, and the extensive interaction between marketing and operations in service organizations.

MGT/MKTG 4476: Contemporary Global Business Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100 and MGT 3600, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course will deal with current practices in Global Business. It will examine the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and off-shored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage.

Notes: MGT 4476 and MKTG 4476 cannot both be used.

Marketing

MKTG 3100: Principles of Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: [(Grades of "B" or higher in (MATH 1160 or MATH 1190), ACCT 2100, ACCT 2200, ECON 2100 and ECON 2200) or Admission to Coles College Undergraduate Professional Program] or [completion of 60 credit hours with a minimum GPA of 2.0 and student in a Coles College Partner Program that includes this course].

An introduction to the principles of marketing. This course examines the term, "marketing," in a broad sense to include all those activities of individuals or organizations which encourage and facilitate exchanges of values. This includes many activities such as research, physical distribution, product planning, pricing and promotional activities. These concepts are examined as they apply to marketing of goods and services, in profit and nonprofit sectors, in both domestic and global markets.

Notes: Offered as an online course.

MKTG 3150: Consumer Behavior

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course examines the diverse influences of culture, society and psychological processes on consumer purchase patterns. Implications for marketing activities are also discussed.

MKTG 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: MKTG 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

Notes: Co-op credit can be used only in the "Business Electives" area of the BBA.

MKTG 3398: Internship

1-9 Credit Hours

Prerequisite: MKTG 3100, Admission to the Coles College Undergraduate Professional Program and approval of the Career and Internship Advisor (KSU Career Planning and Development).

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency or government agency. A research paper is required to receive credit. For

junior or senior students who wish to participate in an on the job experience in which they may apply their academic training. The work experience may not be with a current employer. The course will be graded on an SIU basis.

Notes: Internship credit can be used only in the "Business Electives" area of the BBA.

MKTG 3410: Professional Selling

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course examines the role of personal selling in the firm's marketing strategy, model of communication and specific methods of selling. All students will be required to develop and deliver effective sales presentations.

MKTG 3800: Entertainment Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An introduction to the marketing practices of the entertainment industry. Industry terms, marketing strategies and tactics, recent developments and trends will be examined for major sectors of the entertainment industry including movie, music, television, theater, publishing, gaming, hospitality, and sports sectors. The course will also focus on product placement, celebrity source usage, product tie-ins, cross promotion, licensing, and other current marketing practices in the entertainment industry.

MKTG 4100: Marketing Research

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100 and ECON 2300 , 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the marketing research process as an information providing activity supporting management decision-making. The course covers definition of the research problem, selecting and planning of a research design, measurement and scaling, questionnaire construction, and data analysis and interpretation. Students are required to use a statistical software package for data management and analysis.

MKTG 4300: Basic Retailing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an introduction to retailing as a business institution. Retailing involves selling goods and

services to the final consumer. Students describe and evaluate activities, procedures and decisions related to the operation of a retail unit.

MKTG 4350: Retail Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the practices and methods of retail distribution and merchandising as a rapidly changing part of the total marketing process, involving both large and small firms.

Notes: MKTG 4300 recommended but not required as a prerequisite

MKTG 4400: Directed Study

1-3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Special topics of an advanced nature not in the regular course offerings.

MKTG 4430: Market Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100 and ECON 2300, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course develops skills in locating, selecting and using appropriate information sources for making and using market measurements in the planning and management of marketing and sales operations. Students learn tools for estimating demand and forecasting industry and company sales and how to use these measures in selecting market targets, designing sales territories, assigning sales quotas and planning customer contract programs.

MKTG 4450: Sales Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of planning, organizing, staffing, directing and controlling of the sales force in developing an effective marketing organization.

MKTG 4476: Contemporary Global Business Practices

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MGT 3100 and MGT 3600, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course deals with current practices in Global Business. It examines the strategies and tactics adopted by Global Companies from both Developed as well as Emerging Markets. Students will obtain insights into how firms in today's global markets need to be skilled in handling virtual teaming, outsourced and off-shored projects, and strategic alliances across national boundaries, in order to maintain competitive advantage.

Notes: MKTG 4476 and MGT 4476 may not both be taken.

MKTG 4490: Special Topics in Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 3.0, (Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course), and approval of instructor and Department Chair prior to registration.

Selected special topics of interest to faculty and students.

MKTG 4500: Internet Marketing and Global Business

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The course focuses on how information technology has created the framework for the emergence of commerce on the Internet. Students will be exposed to the ways that firms are utilizing the Internet to reconstruct their value chains and create/sustain competitive advantage. The impact of this medium on key dimensions of global business operations such as purchasing, manufacturing and marketing will also be addressed.

MKTG 4520: Social Media Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Social Media Marketing explores the many realms of social media and includes case studies, discussions, interactive exercises as well as articles from the current literature. The course examines the changing role of social media in the promotional marketing mix, the role of the consumer in social media, online communities and how social media is impacting both marketing and consumer lifestyles, how to measure the ROI of social media, and the metrics of social media.

MKTG 4620: Services Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An examination of the unique characteristics of service organizations and the increasingly vital role they play in the U. S. economy. By focusing upon the marketing of such diverse services as hotels, hospitals, banking and recreation, the course stresses the importance of tailoring marketing strategies to fit the special needs of service marketers, needs quite different from those of manufacturing organizations.

MKTG 4630: Direct Response Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of the promotional methods that request immediate action or response. Topics include: planning, creating and evaluating of direct response advertising campaigns, introduction to direct mail marketing techniques including lists, catalogs, testing and merchandise selection and the media of direct marketing.

MKTG 4650: Advertising

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of the various elements of advertising. This course emphasizes the strategic applications of advertising and promotion from the perspective of the marketing manager.

MKTG 4666: Marketing for Entrepreneurs

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (MKTG 3100 and MGT 3100), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

This course is an introduction to the marketing practices that focus on the needs of entrepreneurs. Industry terms, entrepreneur-focused marketing strategies and sales tactics, recent developments, trends, and social networking will be examined. Requirements for development of an integrated marketing communications plan for supporting an entrepreneur are stressed.

MKTG 4670: Promotional Strategy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 4650, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of the various component parts of the promotional mix. Focuses on the development and management of personal selling, public relations, publicity and advertising in implementing marketing strategy.

MKTG 4750: Advanced Selling

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (MKTG 3100 and MKTG 4410), 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

An in-depth examination of current business trends as they impact the professional salesperson. Particular emphasis is placed on negotiating skills and customer relationship management (CRM), as well as general sales related topics including sales automation and time/territory management. Students will be required to spend time in the field with professional salespeople and to prepare and deliver effective informational and persuasive sales presentations.

MKTG 4820: International Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of the application of the marketing concept in international markets. The course examines how the differences in international environments induced by economic, cultural, legal and other influences necessitate the adaptation of the marketing mix to satisfy consumers. Alternative international market entry strategies, such as exporting and licensing, are discussed.

MKTG 4850: Business to Business Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

A study of special problems and requirements of marketing products to organizational buyers. The course examines organizational buyer behavior, business-to-business promotion, business-to-business sales and the development of industrial products.

MKTG 4870: Sports Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Sport event marketing is one of the fastest growing career fields in America. The term, "sports marketing" includes the administration, coordination, and evaluation of any type of event related to sport. Examples are from local school and community sport events, not-for-profit and corporate events, intercollegiate sport programs, and amateur and professional league activities such as the Olympic Games and the Super Bowl. The Sports Marketing class is designed to provide the student an opportunity to experience an actual sports event project. The project will be selected by the class, after which a strategic plan will be developed and carried out. This class will be interactive and require the student's complete participation to be successful.

MKTG 4880: Hospitality and Tourism Marketing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The hospitality and tourism market is considered to be the world's largest and most international in nature. The philosophical foundation and structure for the hospitality and tourism industry are based on marketing concepts. This course assimilates all of the marketing theories, concepts, activities and requirements necessary to succeed in global Hospitality and Tourism commerce.

MKTG 4990: Marketing Strategy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MKTG 3100, MKTG 3150 and MKTG 4100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

The Marketing Strategy course at Kennesaw State University is the "capstone" marketing course that teaches how to integrate all of the different marketing elements, learned in the other marketing courses, into a unified marketing strategy. It teaches all the steps involved in creating a marketing strategy from the analysis of the situation, selection of a sustainable competitive advantage, identification of a target market, and managing of the marketing mix (product, price, place, and promotion).

Mathematics

MATH 0989: Foundations for College Algebra (MATH I I I I)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course prepares students for entry into MATH I I I I College Algebra or MATH I I 0 I Mathematical Modeling. This course provides a detailed review of the fundamental and essential mathematical concepts required for success in those courses.

MATH 0998: Support for Mathematical Modeling (MATH 1101)

3 Class Hours 0 Laboratory Hours 1 Credit Hours

Corequisite: MATH 1101

This course provides corequisite skills and additional instruction for topics and concepts covered in MATH 1101 Mathematical Modeling.

MATH 0999: Support for College Algebra (MATH 1111)

3 Class Hours 0 Laboratory Hours 1 Credit Hours

Corequisite: MATH 1111

This course provides corequisite skills and additional instruction for topics and concepts covered in MATH 1111 College Algebra.

MATH 1101: Introduction to Mathematical Modeling

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Registration in MATH 0998 (Support for Mathematical Modeling) co-requisite course, if Learning Support Mathematics is required.

This course is an introduction to mathematical modeling using graphical, numerical, symbolic, and verbal techniques to describe and explore real-world data and phenomena. Emphasis is on the use of elementary functions to investigate and analyze applied problems and questions, supported by the use of appropriate technology, and on effective communication of quantitative concepts and results.

MATH 1111: College Algebra

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Mathematics Learning Support requirements, if required.

This course provides an in-depth study of the properties of algebraic, exponential and logarithmic functions as needed for calculus. Emphasis is on using algebraic and graphical techniques for solving problems involving linear, quadratic, piece-wise defined, rational, polynomial, exponential, and logarithmic functions.

Notes: Students completing this course may not also receive credit for MATH 1113.

MATH 1112: College Trigonometry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Mathematics Learning Support requirements, if required.

This course is an in-depth study of the properties of trigonometric functions and their inverses. Emphasis is placed on the unit circle approach to the study of trigonometric functions and their graphs. Topics include circular functions, special angles, solutions of triangles, trigonometric identities and equations, graphs of trigonometric functions, inverse trigonometric functions and their graphs, Law of Sines, Law of Cosines, and vectors.

Notes: Students completing this course may not also receive credit for MATH 1113.

MATH 1113: Precalculus

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of Mathematics Learning Support requirements, if required.

This course is an intensive study of the basic functions needed for the study of calculus. Topics include algebraic, functional, and graphical techniques for solving problems with algebraic, exponential, logarithmic, and trigonometric functions and their inverses.

Notes: Students completing this course may not also receive credit for MATH 1111 or MATH 1112.

MATH 1160: Elementary Applied Calculus

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1111, MATH 1112 or MATH 1113

Uses techniques of college algebra and elementary calculus to analyze and model real world phenomena. The emphasis will be on applications using an intuitive approach to the mathematics rather than formal development. Topics include graphs, derivatives, and integrals of functions. The course incorporates collaborative learning, oral and written reports, and technology.

Notes: This course is not intended for majors within the College of Science and Mathematics or the Southern Polytechnic College of Engineering.

MATH 1190: Calculus I

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1112 or MATH 1113 or approval of the department chair

This course is the first in the calculus curriculum and introduces the central concepts of calculus. Topics include limits, continuity, derivatives of algebraic and transcendental functions of one variable, applications of these concepts and a brief introduction to the integral of a function.

MATH 2008: Foundations of Numbers and Operations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107, and one of the following majors: ECE, ECE (Interest), Early Childhood Birth to Kindergarten Traditional, Early Childhood Birth to Kindergarten Traditional (Interest), Early Childhood Birth to Kindergarten Montessori, Early Childhood Birth to Kindergarten Montessori (Interest)

This course is an Area F introductory mathematics course for early childhood education majors. The course emphasizes the understanding and use of the major concepts of number and operations. As a general theme, strategies of problem solving are used and discussed in the context of various topics.

MATH 2202: Calculus II

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190

This course is the second in the calculus curriculum and consists of two parts. The first part is concerned with the techniques of integration and applications of the integral. The second part is concerned with infinite sequences and series.

MATH 2203: Calculus III

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202

This course is the third in the calculus curriculum and is concerned with functions defined on regions in two or three dimensional space and that have values in one, two, or three dimensional space. Topics include partial derivatives, vector fields, multiple integrals, and applications of these topics.

MATH 2306: Ordinary Differential Equations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202

An introduction to the theory of ordinary differential equations (ODEs), methods of solving first and higher order linear differential equations and linear systems, some applications in the sciences and engineering, the Laplace transform and its application in solving differential equations and linear systems, stability analysis and Euler's numerical algorithm.

MATH 2332: Probability and Data Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190

This course is a foundational, calculus-based introduction to statistics and probability. The following conceptual themes will be developed through the process of statistical investigation: exploratory data analysis (univariate and bivariate), fundamentals of experiment design and sampling, planning and conducting a study, exploring random phenomenon using probability and simulation, and the fundamentals of statistical inference. Technology is integrated into each theme, and the statistical software package used will be chosen by the instructor.

MATH 2335: Numerical Methods for Engineers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202, and one of (CS 1301, CSE 1301, CSE 1311, ECET 3810 or ECET 3710)

This course is an introduction to numerical approximation techniques in the solution of problems encountered in engineering and science. Topics include Taylor polynomials, iterative methods for root finding, interpolation, numerical quadrature and differentiation. Error analysis, effective application, and limitations of methods are emphasized.

Notes: Not intended for mathematics or mathematics education majors.

MATH 2345: Discrete Mathematics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1112 or MATH 1113 or MATH 1190

An introduction to the fundamentals of discrete mathematics. Topics include sets, formal logic, methods of proof, counting relations, functions, graphs and trees, and finite state automata.

Notes: Not intended for mathematics or mathematics education majors.

MATH 2390: Introduction to Logic, Set Theory, and Proofs

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202

This course introduces to students the foundations of logic, set theory, and basic proof techniques. The course serves as a bridge from the procedural and computational understanding of mathematics to a broad understanding encompassing logical reasoning, generalization, abstraction, axiomatic approach, and formal proof.

MATH 3000: Software of Mathematics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2202 and (CS 1301 or CSE 1301 or CSE 1311)

This course is designed to introduce students to numerical/symbolic computation using specialized mathematical software packages. The professional software to be taught may be MATLAB, MAPLE, Scientific Notebook or their equivalent. At the end of the course, students will be able to solve complex mathematical problems with the use of software and to write and present scientific or mathematical work professionally.

MATH 3204: Calculus IV

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of C or better in MATH 2203

This course is the fourth in the calculus curriculum and is concerned with the change of variables for integrals on two and three dimensional regions, line integrals, surface integrals, Green's theorem, and Stokes theorem. The analogue of Stokes' theorem (the theorem of Gauss) for integrals of functions on three-dimensional parametric regions will also be studied.

MATH 3260: Linear Algebra I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190

An introduction to linear algebra and some of its classical and modern applications. Among topics to be included will be systems of linear equations, matrices, determinants of matrices and applications, vector spaces, and inner product spaces. Significant use of technology will be employed in performing matrix computations.

MATH 326 I: Numerical Methods I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 3260 and (CS 130I or CSE 130I or CSE 131I)

This course provides an introduction to the fundamental numerical methods to solve nonlinear equations, systems of linear equations, and interpolation and approximation. Extensive use of computing will be incorporated.

Notes: Extensive computer use will be incorporated

MATH 3272: Introduction to Linear Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 3260

The simplex method, dual simplex method, dual-primal two phase method, and several interior-point methods for linear programming problems will be introduced.

Notes: Selected applications will be discussed.

MATH 3316: Rational Numbers and Proportional Reasoning for Elementary Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2008

A continuation of Mathematics 2008 designed for the P-5 teacher. Topics include the conceptual development of the rational numbers and extension to the real numbers, operations and problem solving with real numbers, patterns and relationships, and proportional reasoning. Experience and exploration with appropriate technology and physical models will be an integral part of the study of these ideas.

Notes: Not for mathematics or mathematics education majors.

MATH 3317: Geometry and Measurement for Elementary Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 3316 and admission to the Teacher Education program.

A continuation of Mathematics 3316 designed for the P-5 teacher. Topics will emphasize the critical content and conceptual development of measurement; transformational geometry; symmetry in the plane; and constructions. Geometric concepts will be explored and developed using physical models, visual models and educational software.

Notes: Not for mathematics or mathematics education majors.

MATH 3318: Algebra for Elementary Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 3317 and admission to the Teacher Education program.

A continuation of Mathematics 3317 designed for preparing the P-5 teacher. Topics will emphasize understanding and use of the major concepts and techniques of algebra for grades P-5, including expressing, transforming, and generalizing patterns and quantitative relationships through a variety of representations, including tables, graphs, algebraic symbols, verbal descriptions, manipulatives, and geometric figures. Solving problems using multiple strategies, manipulatives, and technological tools will also be a focus.

Notes: Not for mathematics or mathematics education majors.

MATH 3322: Graph Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2345 or MATH 2390

This course serves as an introduction to the basic principles of graph theory. Topics include but are not limited to graph representations, isomorphisms, paths, cycles, colorings, trees, matchings, planarity, graph algorithms, and optimization.

MATH 3323: Computer Applications of Discrete Modeling

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: MATH 3322 and CS 340I

This course will give students the opportunity to apply the theoretical work of Discrete Modeling I to concrete problems. The computer will be used to support working with large examples. Examples will cover combinatorics, discrete functions, and graph theory.

MATH 3324: Enumerative Combinatorics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2345 or MATH 2390

This course is an introduction to classical combinatorics and the theory of counting. Topics include the twelvefold way, combinatorial proof, the principle of inclusion/exclusion, and generating functions.

MATH 3332: Probability and Inference

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202

This course is an introduction to probability and statistical inference. Topics include counting techniques, discrete and continuous univariate and multivariate random variables, expectation, moment generating functions, the Central Limit Theorem, estimation, and confidence intervals.

Notes: The MINITAB statistical software package is used.

MATH 3390: Introduction to Mathematical Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190

Introduction to Mathematical Systems is a course specifically designed to introduce students to the study of mathematics from a mathematical systems approach. A mathematical system consisting of undefined terms, axioms and theorems will be studied. The major emphasis of this class will be on the development of skills in communicating and justifying mathematical ideas and conclusions. Mathematical systems studied will vary according to the instructor and may be chosen from sets, number systems and/or geometry.

MATH 3395: Geometric Proofs and Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in either MATH 2390 or MATH 3390

Designed to prepare prospective 5-8 teachers and 6-12 teachers to become effective facilitators in teaching geometry, this course develops geometry as an axiomatic mathematical system and approaches it from synthetic, transformational, and algebraic perspectives (including higher dimensions). Various geometries are studied including finite, infinite, projective, Euclidean and Non-Euclidean. This course also includes a research project on a topic which would be appropriate for any entry-level school geometry student.

MATH 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/internship.

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

MATH 3398: Internship

1-9 Credit Hours

Prerequisite: Approval of major area committee and department chair.

This course is a supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

MATH 3405: Probabilistic Foundations of Actuarial Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2203 and MATH 3332

This course serves as a preparation for Exam P of the Society of Actuaries. Emphasis is on joint continuous distributions, moment generating function, transformations and probability tools to assess risk.

MATH 3495: Advanced Perspectives on School Mathematics I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: a grade of "C" or better in (MATH 2595 or MATH 3295) and (MATH 2390 or MATH 3390)

Students' understanding of the mathematics taught in middle school and the first few years of high school will be deepened and broadened through the study of key topics including algebra, linear functions, exponential functions, quadratic functions, number theory, discrete mathematics, and mathematical modeling. This course is designed so that students can revisit key ideas in school mathematics, bringing with them the skills and understandings of college course work in mathematics, deepening and broadening their understanding, and connecting more advanced ideas to the topics they will teach in middle school and high school.

MATH 3496: Elementary Number Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2390

The course is an introduction to the basic principles of number theory. Topics include properties of integers, congruences, divisibility, the Euclidean algorithm, prime number theorems, multiplicative functions, Diophantine equations, and applications in cryptology.

MATH 3696: College Geometry

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of C or better in MATH 2202

This is a rigorous development of geometry that starts with a close reading of Book I of Euclid's Elements, moves on to geometry developed during the Arabic period and the Renaissance, then to non-euclidean geometries discovered during the 19th century. The course includes a treatment of Hilbert's approach to Euclidean geometry and a brief treatment of real projective geometry. Students taking this course should have a serious interest in abstract mathematics.

MATH 4260: Linear Algebra II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 3260

Topics in this course include real vector spaces and their subspaces; inner product spaces, orthogonal subspaces, Gram - Schmidt process; best approximation; eigenvalues and eigenvectors; special matrices; matrices of general transformations, and various applications including matrix functions.

MATH 4310: Partial Differential Equations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2203 and MATH 2306

This course is an introduction to partial differential equations (PDEs), their applications in the sciences and the techniques that have proved useful in analyzing them. The techniques include separation of variables, Fourier series and Fourier transforms, orthogonal functions and eigenfunction expansions,

Bessel functions, and Legendre polynomials. The student will see how the sciences motivate the formulation of partial differential equations as well as the formulation of boundary conditions and initial conditions. Parabolic, hyperbolic, and elliptic PDEs will be studied.

MATH 4345: Numerical Methods II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2306 and (CS 1301 or CSE 1301 or CSE 1311)

This course provides an introduction to numerical differentiation and integration, numerical methods for linear integral equations, initial and boundary value problems for ordinary differential equations, eigenvalues and eigenvectors, and partial differential equations. Notes: Extensive use of computing will be incorporated.

Notes: Extensive use of computing will be incorporated.

MATH 4361: Modern Algebra I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2390 and MATH 3260

An introduction to the fundamental structures of abstract algebra (groups, rings, and fields), the connections of these structures with the algebra studied at the elementary level, and the historical development of modern algebra. The emphasis in this course is on groups.

MATH 4362: Modern Algebra II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 4361

A continuation of Modern Algebra I with an emphasis on rings and fields.

MATH 4381: Real Analysis I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2390

This course provides a rigorous introduction to the calculus of a single real variable and a deeper awareness of the theory of calculus than can be achieved in the elementary calculus courses. Among the topics covered in the course are completeness of the number system, elementary topology of the real line, limits of sequences, and limits and continuity of functions. The aim of this course is two-fold, to provide an understanding of the nature of the real number system and its role in the theory of calculus, and to provide a training in the discovery and writing of rigorous mathematical proofs.

MATH 4382: Real Analysis II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 4381

This course is a continuation of the study of functions of a real variable (Real Analysis I). Topics include the Riemann/Darboux integral, differentiability, sequences and series of functions. The aim of the course is to provide the students with a deeper understanding of the notions of sequences/series, integrability,

and differentiability of functions of a real variable, as well as their properties and interconnections. While developing these concepts, we will focus on understanding and writing formal proofs, as well as emphasize their applications.

MATH 439 I: Complex Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2203

This course is an introduction to the basic concepts of complex analysis, its beautiful theory and powerful applications. Topics covered will include: the algebra and geometry of the complex plane, properties of elementary functions of a complex variable, analytic and harmonic functions, conformal mappings, continuity, differentiation, integration (Cauchy integral theory), singularities, Taylor and Laurent series, residues and, time permitting, their applications.

MATH 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor, major area committee, and department chair.

Special advanced topics external to regular course offerings.

MATH 4490: Special Topics in Mathematics

1-6 Credit Hours

Prerequisite: Approval of the instructor and department chair.

This course is comprised of special selected topics of interest to faculty and students.

MATH 4495: Advanced Perspectives on School Mathematics Part II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 3495

Students understanding of secondary mathematics will be deepened and broadened through the study of algebraic structures, analytic geometry, and trigonometry, including conic sections, complex numbers, polynomials and functions. This course is designed so that students can revisit key ideas in high school mathematics, bringing with them the skills and understandings of college course work in mathematics, deepening and broadening their understanding, and connecting more advanced ideas to the topics they will teach in high school.

MATH 4596: Topology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2390

This course is an introduction to the study of topology. Topics include topological spaces, subspaces, basis, continuity, separation and countability axioms, connectedness, and compactness.

MATH 4699: Undergraduate Research

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor.

The student conducts original research in mathematics under the supervision of a faculty member. This research is the result of sustained effort on a problem in mathematics, either theoretical or applied. Making an original contribution to the field of mathematics is the focus of the course rather than a survey of existing work. Results are disseminated by on campus presentations, conference presentations and/or peer-reviewed journal publications.

Mathematics Education

MAED 3475: Historical and Modern Approaches to Mathematics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to the Teacher Education program.

Students will investigate classical and modern mathematics through problem-solving and mathematics-specific technologies. Students will have opportunities to connect course content with the middle and secondary school curriculum.

MAED 4000: Service Learning in Mathematics Education

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

MAED 4400: Directed Study in Mathematics Education

1-5 Credit Hours

Prerequisite: Approval of the instructor and department chair.

A concentrated investigation of a particular aspect of a topic within mathematics education. The content of the directed study will be determined jointly by the instructor and the student.

MAED 4415: Teaching of Mathematics I (6 - 12)

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in EDUC 2110 and EDUC 2120 and Preservice Certificate

Corequisite: MATH 3495

This course consists of examination and application of curricular issues, learning theories, teaching strategies, instructional materials, and assessment procedures for teaching secondary school mathematics in the multicultural classrooms of today. The course includes field experience observations in secondary mathematics teaching. Emphasis is on those practices suggested by research in mathematics education and encouraged by the NCTM and the MAA. Proof of professional liability

insurance and a clear background check or preservice certificate is required prior to receiving a school placement.

MAED 4416: Teaching of Mathematics II (6 - 12)

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in EDUC 2130 and MATH 3495 and MAED 4415 and Preservice Certificate is required

This course is an examination and application of advanced curricular issues, learning theories, teaching strategies, instructional materials, unit planning, and assessment procedures for teaching secondary school mathematics in the multicultural and diverse classroom of today. Includes a secondary school field experience in mathematics teaching and seminars. Emphasizes those practices suggested by research in mathematics education and encouraged by the NCTM and the MAA. Candidates should plan to spend three hours per week in the field observing mathematics classrooms. Proof of professional liability insurance and a clear background check or preservice certificate is required prior to placement in a school.

MAED 4417: Teaching of Mathematics (6-12) Practicum

0 Class Hours 9 Laboratory Hours 3 Credit Hours

Prerequisite: Admission to MAED 4416

Secondary school field experience in mathematics teaching with concurrent seminars. Proof of professional liability insurance is required prior to school placement. Repeatable.

MAED 4475: Student Teaching: Mathematics (6-12)

12 Credit Hours

Prerequisite: Admission to Student Teaching.

Full-time teaching experience in mathematics under the supervision of a public school cooperating teacher and a specialist in mathematics education. Includes a regularly scheduled seminar. Proof of professional liability insurance is required prior to placement in a school.

MAED 4490: Special Topics in Mathematics Education

1-6 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of interest to faculty and students.

MAED 4498: Internship in Teaching Mathematics (6-12)

12 Credit Hours

Prerequisite: Provisional teaching license issued by the state of Georgia; full-time employment teaching mathematics.

Student Teaching experience in mathematics for provisionally certified teachers. Supervision will be in collaboration with a mentor or teacher in the local school and a specialist in mathematics education.

Notes: Successful completion of one semester of MAED 4495 at the same school will substitute for

MAED 4475. Proof of professional liability insurance is required. Student must be employed in a secondary school to qualify. Repeatable.

MAED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Pre-service certification and Admission to Yearlong Clinical Experience

Corequisite: MAED 4416, and INED 3305 and INED 4435 and EDUC 4610

This course is the first semester of an intensive and extensive co-teaching yearlong clinical practice in mathematics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars. Proof of liability insurance is required as well as a background check.

MAED 4660: Yearlong Clinical Experience II

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: MAED 4650 and eligibility to take GACE

Corequisite: INED 3306 and INED 4436

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in mathematics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This experience includes regularly scheduled professional seminars and the completion of a content pedagogy assessment. Proof of liability insurance is required as well as a background check.

MATH 3295: Mathematics for Middle Grades and Secondary Teachers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 with a grade of "C" or better

Designed for the preservice teacher of mathematics for adolescents. Content strands to be explored include number and operation, algebra, and measurement. The process standards of communication, connections, problem solving, reasoning and proof, and representation will be emphasized. Appropriate use of manipulatives, calculators and software will be integrated in course materials.

Mechanical Engineering

ME 100I: Introduction to Mechanical Engineering

2 Class Hours 0 Laboratory Hours 2 Credit Hours

This course is an introduction to Engineering, with a focus on Mechanical Engineering. A strong emphasis will be placed on techniques for undergraduate student success, and preparation for careers in engineering and/or graduate studies. Students will be introduced to engineering faculty and student organizations. Kennesaw State University and Mechanical Engineering Program policies and curricula

will be discussed.

ME 1311: MATLAB for Engineers with Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190

Concurrent: ME 1001

This course will provide an introduction to fundamental computing principles and programming concepts. Students will use the high-level programming language, MATLAB to develop and implement programs to solve engineering problems. Basic programming concepts covered include: algorithm design, data types, flow control, functions, sorting, plotting, simulation, and numerical methods.

ME 2290: Special Topics in Mechanical Engineering

1-4 Credit Hours

This course covers special topics at the intermediate level that are not in the regular course offerings. This course may be taken more than once.

ME 3101: Materials Science and Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 1211 and PHYS 2211

A study of metals, ceramics, polymers, and composites as related to material selection for design and manufacturing. Areas include atomic structure and bonding, crystal structure and defects, mechanical properties and failure, diffusion, dislocation and strengthening, alloying, phase diagrams and transformations/heat treatment, polymers, ceramics and glasses, and composites.

ME 3133: Composite Mechanics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3131

To provide a broad introduction to the technology and mechanics of advanced composites (polymer, metal and ceramic matrix), with a particular emphasis on mechanical design using fiber reinforced composites. Micromechanics of composites, as well as effective properties such as lamination theory will be introduced. Design considerations, applications and composite fabrication will also be introduced.

ME 3201: Product Realization

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: ENGR 2214 and EDG 1211 and Engineering Standing

This course will introduce students to a rigorous design process. From needs assessment to implementation, an emphasis will be placed on the need for a formal process. Case studies will be used extensively, as well as a real-world ME design project.

ME 3398: Internship

1-4 Credit Hours

Prerequisite: 90 credit hours and permission of the instructor.

A structured out of the classroom experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the student's advisor and internship coordinator.

ME 3410: Thermodynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214 and Engineering Standing

Fundamentals of Thermodynamics including the concept of energy and the laws governing the transfers and transformations of energy. Emphasis on thermodynamic properties and the first and second law analysis of systems and control volumes. Integration of these concepts into the analysis of basic power cycles is introduced.

ME 3440: Heat Transfer

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ME 3410 and ENGR 3343 and Engineering Standing

Fundamentals and applications of heat transfer including conduction, convection and radiation. Steady state and transient conduction in one and multi dimensions. Forced and free convection with boundary layer theory. Radiation properties and radiative heat transfer among black and non-black bodies. Calculation of heat transfer rates, heating/cooling times and design of heat exchangers.

ME 350I: Dynamic Systems & Control Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3122, MATH 2306 and Engineering Standing

Introduction to a unified approach to lumped-element modeling and analysis of mechanical, electrical, hydraulic, and multi-energy domain systems. Topics include: graphical and computer modeling; formulation of state-space equations; analysis of linear systems; determination of time and frequency domain response of such systems to transient and periodic inputs; block diagram representation of dynamic systems using Laplace Transform. Feedback control systems, including PID control, root locus, stability analysis, and computer modeling.

ME 370I: Manufacturing Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 3131, ENGR 3343, ME 3410 and Engineering Standing

This course introduces the fundamentals and applications of major manufacturing processes, their capabilities, analysis, selection and economics. It establishes the technical knowledge for the selection, designing, and planning of manufacturing processes such as casting, deformation process, material removal process and polymer processes.

ME 414I: Machine Design I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 313I and Engineering Standing

The fundamentals of mechanical engineering design to analyze, design and /or select components which are commonly used in the design of complete mechanical systems for structural integrity, reliability, and cost considerations are detailed. The course focuses on static loading and fatigue failure of mechanical elements, including shafts and rolling-element bearings, bolted and permanent connections, springs, brakes, cylinders, gears and flexible elements.

ME 420I: Senior Design I

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: ME 320I, ME 3440, ME 4250 and Engineering Standing

Part I of a two-course senior design capstone project for mechanical engineering. Students will form teams, define design projects, and write a proposal. Students will also begin preparation for FE Exam.

ME 4202: Senior Design II

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ME 420I and Engineering Standing

Part 2 of a two-course senior design capstone project for mechanical engineering. Synthesis and analysis of an open-ended mechanical engineering design project, including written and oral communication. Students will also be prepared to take the FE exam.

ME 4250: Computer Aided Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 121I, ENGR 3343, ENGR 313I and Engineering Standing

This course introduces engineering software tools and techniques for computer modeling and simulation of mechanical components, products and systems. It introduces students to techniques common to various industries including biomedical, aviation, automobile, HVAC, etc. such as meshing and computer simulations based on finite element and computational fluid dynamics (finite volume) analyses.

ME 4400: Directed Study

1-4 Credit Hours

Prerequisite: Approval of instructor and department chair

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences.

ME 4403: Heat Transfer and Thermodynamics Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ME 3440 and Engineering Standing

This is a laboratory course designed to complement the thermodynamics and heat transfer lecture courses. The lab experiments are set up to provide practical experience in thermal sciences area including heat transfer modes, thermodynamics power and refrigeration cycles. Emphasis will also be placed on thermal measurements, data interpretation and report writing.

ME 4490: Special Topics in Mechanical Engineering

1-4 Credit Hours

Prerequisite: Engineering Standing and approval of the instructor and department chair. Non-Engineering majors: Permission of instructor and the department chair.

This course covers advanced level special topics of interest to faculty and students that are not in the regular course offerings. This course may be taken more than once.

ME 450I: Vibrations & Controls Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: ENGR 3125 and ME 350I (can be taken concurrently) and Engineering Standing

This is a laboratory course designed to complement the vibrations and controls topics also covered in lecture courses. Experimental study of one, two, and more degrees of freedom vibration, including effects of damping, free and forced vibrations, translational and torsional vibrations. Implementation of proportional, integral, and/or derivative control of dynamic systems.

Mechanical Engineering Technology

MET 1000: Mechanical Engineering Technology Orientation

1 Class Hours 0 Laboratory Hours 1 Credit Hours

An introduction to career opportunities in the Mechanical Engineering Technologies; familiarization with college and departmental policies, curriculum, and facilities.

MET 1311: Manufacturing Processes

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An introduction to industrial manufacturing processes used for converting raw materials into finished products. Various processes, machinery, and operations will be examined with emphasis placed on understanding engineering materials and processing parameters that influence design considerations, product quality, and production costs.

MET 1321: Machining and Welding

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: MET 1311 (or concurrently)

An introduction to the use and operation of selected industrial machinery, various machining operations,

selected welding processes and precision measuring instruments. Laboratory projects will emphasize safety and apply selected manufacturing processes, various inspection processes, fixturing and engineering materials.

MET 2290: Special Topics for MET

1-3 Credit Hours

Prerequisite: Consent of the Department Chair

Special topics selected by the program. Offered on a demand basis.

MET 2322: Metrology and CNC Machining

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1211

This course is an introduction to the use and operation of selected Computerized Numerical Control (CNC) machine tools and to Geometric Dimensioning And Tolerancing (GD&T). Laboratory projects will apply selected manufacturing processes, GD&T and CNC programming logic. Emphasis is placed on the following: safety, operational planning, design considerations, bonus tolerance, virtual condition, work holding requirements and manufacturing problems associated with engineering materials.

MET 250I: Engineering Computation using Matlab

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGT 2124 or ENGR 2214

This course provides an introduction to computation in the context of engineering problem solving. In this course, the fundamental tenets of computer programming will be placed into the context of MATLAB, a user-friendly language for engineers. It employs hands on exercises, examples from the world of engineering, and a variety core tools to increase general proficiency and capability in the computer programming, preparing students to fluidly adapt learned programming concepts to other languages. After teaching the linear, algebra, an introduction to computer programming with MATLAB, including flow charts, loops, condition statements, and functions, is given. Basic numerical methods, including numerical integration, differentiation, and root finding are also covered. Emphasis is placed on using MATLAB to solve engineering problems, and using user-defined functions and toolboxes within MATLAB to create computer programs and GUI's. A brief introduction to Simulink is also given.

MET 310I: Fluid Mechanics Principles & Applications

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: (ENGR 2214 or ENGT 2124) and TCOM 2010

The objective of this course is to present fluid mechanics concepts and their applications to practical problems. The main areas are fluid properties, fluid statics, flow in conduits, pump selection and operation, fluid power systems, momentum transfer, external flow, and open channel flow. Principles will be related to industrial applications. Hands-on laboratory exercises will demonstrate principles and applications.

MET 3123: Dynamics of Machines

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ENGR 3122 or MET 3126) and MET 2501

The analysis of motion, velocity, acceleration, and forces in mechanisms and machines. Emphasis is placed on the analytical methods suitable for computerized analysis as well as graphical methods for visualization and preliminary design studies. Mechanical vibration isolation is also discussed.

MET 3126: Engineering Dynamics with Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGR 2214 or ENGT 2124

A study of the mechanics of particles and rigid bodies, considering practical examples. Topics covered include: kinematics and kinetics of particles; work and kinetic energy; impulse and momentum; rigid body motions; relative motion and moving coordinate systems. Machinery applications will be considered for majority of course materials.

MET 3132: Engineering Materials

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CHEM 1211 and (ENGR 3131 or ENGT 3124)

Concurrent: ENGR 3131 or ENGT 3124

This course is focused on the study of metals, ceramics, polymers, and composites as related to engineering design. Areas of study include: corrosion, atomic structure, mechanical properties, failure theories, fatigue, creep, cold working, heat treating, alloying, and non-destructive testing.

MET 3132L: Engineering Materials Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: MET 3132

In this course/laboratory students will gain practical experience in testing of materials including metals, polymers, and composites. Tests include tensile testing, heat treating, impact testing, hardness testing, and corrosion.

MET 3331: Tool Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 2322 and (ENGR 3131 or ENGT 3124)

Jigs and fixtures for production machining processes are covered. Specific subjects include methods of gauging work pieces, ease and simplicity of operation, assembly methods, capital evaluation, techniques for locating and holding work pieces, time studies, tool steels, bending allowances, and reverse engineering techniques. The course is design project oriented. Projects include calculations of tooling forces and costs as well as complete production drawings of the tool design.

MET 3332: Rapid Design and Manufacture

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 1212, or permission of instructor

This course is focused on bringing products to market as quickly as possible primarily through the use of 3D scanning and additive manufacturing technologies. Product Design, reverse engineering, and rapid tooling are topics covered and applied in this course.

MET 3400: Thermodynamics and Heat Transfer

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and (PHYS 1111 or PHYS 2211)

A study of the fundamental laws of thermodynamics and heat transfer for non-MET students. Properties of ideal gases, mixtures of ideal gases, real substances as related to heat engines, heat pumps, refrigerators, and heat exchangers are covered. Basic applications of thermodynamics in the study of power plants, internal combustion engines, refrigeration systems and air conditioning systems are included. Heat transfer topics are introduced with applications for conduction, convection, and radiation.

MET 3401: Thermodynamics I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and (PHYS 1111 or PHYS 2211)

Covers the fundamentals of thermodynamics. Use of steam and gas tables is introduced. Property relations for ideal gases and incompressible liquids are introduced. Applications of the First and Second Laws to closed and open systems are studied. Heat engines, refrigerators, heat pumps, availability and irreversibility are studied.

MET 3402: Thermodynamics II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ENGR 3343 or MET 3101) and MET 3401

Continuation of Thermodynamics I with emphasis on applications. Transient flow analysis, combustion, internal and external combustion cycles, gas turbines, compressors, refrigeration and air conditioning processes are studied. Fundamentals of heat transfer are also covered.

MET 4112: Computer Aided Engineering & Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ENGR 3131 or ENGT 3124 and (MET 3101 or ENGR 3343) and EDG 1212

Introduces the student to advanced geometry creation as the necessary input for engineering design and analysis using modern computer aided engineering tools such as finite element stress analysis (FEA) and computation fluid dynamics CFD. Emphasis is placed on the interdependency of geometry creation and engineering analysis.

MET 4124: Vibrations and Advanced Dynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2306 and (ENGR 3122 or ENGT 3126)

Theory of mechanical vibrations with applications to machinery and the kinematics and kinetics of three dimensional motion of rigid bodies are covered. Conventional and computer methods are used.

MET 4133: Advanced Engineering Materials

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3132 and (ENGR 3131 or ENGT 3124)

The course covers polymers, ceramics, composites, and advanced topics in ferrous and non-ferrous metallurgy. Advanced topics in mechanics of materials, including failure theories and analysis of composites are studied. Traditional methods and Finite Element Modeling and Analysis (FEM/FEA) are used.

MET 4141: Machine Design I

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: EDG 1212 and (ENGR 3122 or MET 3126) and MET 3132

The design of machines and machine elements, and cost considerations. The course focuses on power transmission in machines including gears, belts, pulleys, bearings, lubrication, clutches, brakes, chains, power screws, and gear trains. Stress calculations and material selection are discussed. Broad design issues such as safety, ethics, patents, product liability, time value of money, return on investment, and breakeven analysis are covered. Students work in design teams on a major design project.

MET 4142: Mechanical Systems Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 4141 and EDG 1212 and (ENGR 3122 or MET 3126)

Fundamental rules, laws and criteria for using Finite Element Analysis (FEA) in the design of mechanical components and systems for structural integrity, reliability, and economy are covered, including energy methods, finite difference methods and numerical methods. Failure theory from static and variable loading is emphasized. Broad design issues such as design engineering economics, engineering ethics in design and intellectual property are covered. The course includes design projects using FEA.

MET 4341: Automation Systems and Controls

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 3000 and (ENGR 3122 or MET 3126)

Concurrent: ECET 30000

The technology of integrating automation equipment for use in engineering systems is covered. Students design simulations and complete fully-automated projects involving the human-machine interfacing of analog and digital sensors, actuators, motors, machines, flexible automation devices, and other material handling systems. Advanced process control software is used for programing and sensory techniques, as well as automatic open and closed-loop systems, and PID feedback control.

MET 4342: Numerical Control of Machines

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: MET 2322

A course in tooling and programming for Computer Numerical Control (CNC) machines. The course includes G-Code, conversational, and Computer Aided Manufacturing (CAM) programming languages and systems. Considerable emphasis on the integration of NC planning and programming into automated manufacturing systems. Topics in communications and computer networking for Direct Numerical Control (DNC) are discussed.

MET 435 I: Manufacturing System Design Project

0 Class Hours 9 Laboratory Hours 3 Credit Hours

Prerequisite: MET 4342 and MET 4332

The Manufacturing Design Project is the capstone course for the Manufacturing Concentration in MET. Projects are assigned based on interest, equipment and software availability, and the specific background of the student. Projects require planning, proposal presentation, scheduling, engineering, implementation, and written and oral presentations of project results. Students are encouraged to "design and build" and utilize concepts learned from the courses completed in the MET Manufacturing Concentration. Presentation and report writing skills are practiced.

MET 4400: Directed Study for MET

1-5 Credit Hours

Prerequisite: Consent of the Department Chair

Independent study on topics of mutual interest to faculty and students. Assignments depend upon the specific background of the student, equipment availability, software availability, etc. Projects require a proposal presentation, scheduling, implementation and both written and oral presentations of study results.

MET 440I: Heat Transfer

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 340I

This course encompasses the study of Steady-State Conduction (One Dimensional, Multiple Dimensions), Principles of Convection (Forced Convection, Natural Convection), Condensation and Boiling, Radiation Heat Transfer and Heat Exchangers.

MET 441 I: Refrigeration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3402 (or concurrently)

The theory and applications of commercial refrigeration systems are studied. The thermodynamic analysis of the refrigeration cycle, load calculations and selection of components for refrigeration systems are covered.

MET 4412: Air Conditioning

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3402 and (MET 3101 or ENGR 3343)

Concurrent: MET 3402

The basic principles of residential and commercial air conditioning systems are introduced including the calculation of cooling and heating loads, and psychrometric processes. The student is exposed to relevant topics in heating, ventilating and air conditioning (HVAC) such as equipment selection, duct design, piping design, indoor air quality, energy code, HVAC systems, energy conservation options, automatic controls, and testing, adjusting and balancing (TAB) of air conditioning systems.

MET 4421: Instruments and Controls

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: ECET 3000 and (ENGR 3343 or MET 3101)

Concurrent: ECET 3000

This course covers the principles of engineering experimentation and process control. Students are instructed in current methods of data gathering, data regression, graphical analysis, result compilation, and report writing. Data gathering will include both manual techniques and computer data acquisition systems. An understanding of sensor selection, interfacing, and implementation is provided through lecture and laboratory assignments. The fundamentals of uncertainty analysis along with the application of dimensional analysis and similitude are covered. Programmable Logic Controllers (PLC's) are used to introduce students to process control. Laboratory exercises illustrating the use of instrumentation for performance evaluation and control of mechanical systems are conducted.

MET 4431: Plant and Power Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3402 (or concurrently)

A study of the applications of fluid mechanics, thermodynamics and heat transfer to industrial process plants. Fundamentals of piping design, selection of fans, heat exchangers and other components commonly used in industrial processes are covered.

MET 4490: Special Topics for MET

1-5 Credit Hours

Prerequisite: Consent of the Department Chair

Special topics selected by the program. Offered on a demand basis.

Mechatronics

MTRE 1000: Introduction to Mechatronics Engineering

1 Class Hours 3 Laboratory Hours 2 Credit Hours

An introduction to career opportunities in Mechatronics Engineering; familiarization with college and departmental policies, curriculum, and facilities.

MTRE 2290: Special Topics - Mechatronics

1-6 Credit Hours

Special Topics course for Mechatronics

MTRE 2610: Intermediate Programming for Mechatronics

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190 and (CSE 1311 or ME 1311)

This intermediate programming course covers programming topics relevant for Mechatronics Engineering, using tools such as C++, MATLAB, Arduino, and Python. Object-oriented programming techniques are introduced such as encapsulation, classes, inheritance, and operator overloading. Other course components include basic numerical methods and visualization of data in two and three dimensions. Laboratory exercises focus on programming relevant to mechatronics such as acquiring analog, digital, and camera sensor data, motor control, pneumatics, etc.

MTRE 3710: Mechatronics Engineering Fundamentals

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Engineering Standing and (ENGR 2710 or MATH 3260) and MTRE 2610 and EE 2301

This course provides fundamental skills for the mechatronics engineer plus technical writing experience. Topics include sensors and actuators, especially pneumatics and DC motors; programming and interfacing with the AVR microcontroller; and robot kinematics and obstacle avoidance with mobile robots.

MTRE 4001: Modeling and Feedback Control of Dynamic Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2202 and EE 2301 and PHYS 2211 and Engineering Standing

This is a control system course tailored for Mechatronics Engineering students. While it covers all topics in a traditional control system course, some additional topics, such as modeling of mechatronics systems, controller design of mechatronics system, and vibration control, are covered as well.

MTRE 4002L: Feedback Control Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: MATH 2202 and EE 2301 and PHYS 2211 and Engineering Standing

Corequisite: MTRE 4001

This is a laboratory course designed to complement the modeling and feedback controls topics. Feedback Control, MATLAB/Simulink Modeling are studied and analyzed using simulations and physical experiments.

MTRE 4010: Advanced Controls

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ((MTRE 400I and MTRE 4002L) or EE 420I), and MATH 3260 and Engineering Standing

This course is an advanced study of modern control systems focused on control theories and system applications. It covers the basic theoretical methods and mathematical tools for analysis and design of control systems.

MTRE 4100: Instruments and Controls

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Engineering Standing and EE 250I and EE 340I and MATH 2306

Characteristics of instruments used in mechanical systems for determining parameters such as temperature, pressure and flow are studied. The use of these devices in automated systems is covered both using feedback control and programmable logic controllers. Laboratory exercises illustrating the use of pertinent instrumentation for determining the performance of mechanical equipment are conducted.

MTRE 4200: Robotics Analysis and Synthesis

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MTRE 2610 and (MATH 2203 or MATH 3260) and ((MTRE 400I and MTRE 4002L) or EE 420I or ME 350I) and Engineering Standing

This course introduces the basic principles of robotic manipulators. Students will learn how to derive the mathematical models, plan trajectories, and design controllers for robot applications. Software tools, such as MATLAB, are employed to analyze and simulate the robot system.

MTRE 4400: Directed Research - Mechatronics

1-2 Class Hours 1-6 Laboratory Hours 1-6 Credit Hours

Prerequisite: Set by instructor of each individual section

Directed research course for Mechatronics.

MTRE 4490: Special Topics - Mechatronics

1-6 Credit Hours

Special Topics course for Mechatronics

MTRE 4800: Mechatronics System Design

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: MTRE 4010, MTRE 4100, ENGR 3325, and Engineering Standing

The design of mechanical and electrical devices and systems, and cost considerations are covered. The course focuses on reliability, safety, energy and environmental issues, ethics, patents, product liability, time value of money, return on investment, and breakeven analysis. The design project is a capstone for the Mechatronics Engineering program. Projects are assigned based on interest, equipment and

software availability, and the specific background of the student. Projects require planning, proposal presentation, scheduling, engineering, implementation, and written and oral presentations of project results. Students are encouraged to "design and build" and utilize concepts learned from courses throughout the program.

Military Science

MILS 1021: Leadership & Personal Development

2 Class Hours 3 Laboratory Hours 3 Credit Hours

General introduction of cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as time management, physical fitness, and stress management relate to leadership, Officer-ship, and Army operations. Focus is placed on developing basic knowledge and comprehension of Army Leadership Dimensions while gaining a big picture understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

MILS 1022: Introduction to Tactical Leadership

2 Class Hours 3 Laboratory Hours 3 Credit Hours

This course overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feed-back, and using elective writing skills. Cadets explore dimensions of leadership values; emphasis is placed on recruitment and retention of cadets. The building of stronger relationships among the cadets through common experiences and practical interaction are critical aspects of the course experience.

MILS 2021: Innovative Team Leadership

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: MILS 1021, MILS 1022, prior military service or permission of the instructor.

This course explores the dimensions of creative and innovative tactical leadership, strategies, and styles by examining team dynamics of two historical leadership theories that form the basis of the Army leadership framework – trait and behavior theories. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of Army rank structure, duties, and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment (COE).

MILS 2022: Found Tactical Leadership

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: MILS 1021, MILS 1022, and MILS 2021, prior military service or permission of the instructor.

This course examines the challenges of leading tactical teams in the complex contemporary operation environment (COE). The course highlights include dimensions of terrain analysis, patrolling, and operation orders. The course furthers study of the theoretical basis of the Army leadership framework and explores the dynamics of adaptive leadership in the context of military operations. This course

provides a smooth transition into MILS 301 I. Cadets develop greater self-awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.

MILS 203 I: Army Physical Fitness Training

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Must have a Department of the Army (DA) Form 3425-R signed by a Physician and be enrolled in the Military Science Levels 1-4.

Develops skills needed to participate in, instruct, develop, and assess the Army Physical Fitness Test. Classes will meet Monday, Wednesday, and Friday from 6:00 am to 7:00 am in or near the gymnasium for training and lecture period.

MILS 301 I: Adaptive Tactical Leadership

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Advanced ROTC standing or permission of the department.

This course challenges cadets to study and practice adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback, as well as their own self evaluations. Cadets continue to develop their leadership and critical thinking abilities. The focus is developing cadets' tactical leadership abilities to enable them to succeed at ROTC's summer Leadership Development and Assessment Course (LDAC).

MILS 3012: Leadership Change Environment

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: Advanced ROTC standing or permission of department.

This course uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Cadets review aspects of combat, stability, and support operations. They also conduct military briefings and develop proficiency in garrison operation orders. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in contemporary operation environment (COE). Cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Leadership Development Assessment Course (LDAC).

MILS 401 I: Developing Adaptive Leadership

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MILS 301 I, and MILS 3012

This course develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to Army officers. MS IV cadets analyze, evaluate and instruct cadets at lower levels. Both their classroom and battalion leadership experiences are designed to prepare cadets for their first unit of assignment. They identify responsibilities of key staff roles, and use situational opportunities to teach, train, and develop subordinates.

MILS 4012: Leaders Complex World

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MILS 4011 or Advanced Course Standing.

This course identifies and resolves ethical dilemmas. This course explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with non-governmental organizations, civilians on the battlefield, and host national support. The course places significant emphasis on preparing cadets for their first unit assignment. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare cadets to face the complex ethical and practical demands of leading as commissioned officers in the United States Army.

MILS 4090: Special Topics in Military Science

1-5 Credit Hours

Prerequisite: Must be enrolled in or have successfully completed both MSIII and MSIV-level ROTC classes or obtain permission from the Professor of Military Science.

This course allows for independent study with a faculty member. Topics and research will pursue topics of military science not extensively treated in any other Military Science course.

MILS 4400: Directed Study in Military Science

1-10 Credit Hours

Prerequisite: Permission of the instructor.

This course is offered to military science students interested in investigating special topics external to regular course offerings. This course is primarily offered as a completion course. Its secondary intent is to afford the Military Science Department the flexibility to offer course work to students who have special circumstances in their academic and commissioning requirements such as nursing and accelerated commissioning program cadets.

Music

MUSI 1020: Fundamentals of Music Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

The fundamentals of music theory including music reading, rhythm and pitch orientation, accidentals, key and time signatures, rhythmic organization, intervals, scale formation, triad construction and chord spelling, elementary ear training and sight singing, and an introduction to the keyboard. Open to all university students. May not be counted for credit towards a music degree.

MUSI 1107: Music in Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course examines the role of music in society through a study of musical works within their cultural

and historical contexts. Course assignments develop skills in critical analysis and global perspectives as well as an understanding of the creative process. Required attendance at live performances provides the experiential component so crucial to the understanding and enjoyment of music. (Most events require paid admission.)

Notes: Offered as an online course.

MUSI 1110: Introduction to World Music

1 Class Hours 2 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 1121

Introduction to music of the world's cultures.

Notes: Required laboratory component.

MUSI 1111: Aural Skills I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major or minor; placement determined by proficiency test.

For music majors and minors. Foundation work in sight singing including rhythmic and melodic dictation. Practical application includes some composition and improvisation.

MUSI 1112: Aural Skills II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1111

For music majors. Continuation of skill development in sight singing including rhythmic and melodic dictation. Practical application includes some composition and improvisation.

MUSI 1120: Music Theory I Intensive

3 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Must be a fully admitted music major or minor; placement determined by a proficiency test.

For music majors and minors. A correlated study of rhythmic, melodic, and harmonic aspects of music common practice. Development of basic skills in music theory and harmony including practical application through part-writing. Components include composition, improvisation, and practical keyboard applications. Contains a separate keyboard lab to increase proficiency.

MUSI 1121: Music Theory I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Must be a fully admitted music major or minor; placement determined by proficiency test.

For music majors and minors. A correlated study of rhythmic, melodic and harmonic aspects of music common practice. Development of basic skills in music theory and harmony including practical application through part-writing. Components include composition, improvisation and practical keyboard

applications.

MUSI 1122: Music Theory II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1121 or MUSI 1120

For music majors. A continuation of correlated study of rhythmic, melodic and harmonic aspects of music common practice. Continuation of keyboard harmony is included with application at the keyboard. Components include composition, improvisation and practical keyboard applications.

MUSI 1141: University Band

0 Class Hours 3 Laboratory Hours 1 Credit Hours

The University Band is a wind band that performs collegiate repertoire twice each semester. Non-music major wind and percussionists are strongly encouraged to enroll in this ensemble. No audition is required for the University Band.

MUSI 1142: Marching Band

0 Class Hours 6 Laboratory Hours 1 Credit Hours

Prerequisite: Audition required and prior high school or college instrumental or colorguard experience required.

This course develops the instrumental and visual performance skills of students within the college marching band setting. Objectives are to combine high-level musical/visual performance with uniform marching style to create entertaining shows suitable for football games. This course is open to students in all majors. Auditions are required for participation and occur the week before fall classes begin. This course is offered every fall semester; max. 300 members.

MUSI 1143: Jazz Ensemble

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: Audition and permission of the instructor.

This course may be repeated for lower-division credit. The School of Music offers two large Jazz Ensembles that perform both on- and off-campus in concert. The ensembles perform a variety of styles within the jazz idiom including traditional swing, boꝑ, Latin, Afro-Cuban, and funk.

MUSI 1144: University Philharmonic Orchestra

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: Membership is open to all students with previous experience playing an instrument.

May be repeated for lower-division credit. Study, rehearsal, and concert performance of literature for orchestra. No audition is required and non-music majors with previous orchestral experience are encouraged to play in the group.

MUSI 1145: Wind Symphony

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: Audition

This course offers music majors, minors, and non-music majors the opportunity to study, rehearse, and perform literature for the wind band medium. This course may be repeated for lower-division credit. Membership in the Wind Symphony is by audition only.

MUSI 1146: Chamber Singers

0 Class Hours 6 Laboratory Hours 1 Credit Hours

Prerequisite: Audition.

May be repeated for lower-division credit. Study, rehearsal, and concert performance of choral literature. Membership in Chamber Singers is by audition only.

MUSI 1147: Wind Ensemble

0 Class Hours 6 Laboratory Hours 1 Credit Hours

Prerequisite: Audition.

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for wind ensemble. Membership in Wind Ensemble is by audition only.

MUSI 1148: Symphony Orchestra

0 Class Hours 6 Laboratory Hours 1 Credit Hours

Prerequisite: Audition.

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for orchestra. Membership in the Orchestra is by audition only.

MUSI 1149: Chorale

0 Class Hours 3 Laboratory Hours 1 Credit Hours

May be repeated for lower-division credit. Study, rehearsal and concert performance of literature for choir.

MUSI 1165: Class Piano I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major; placement determined by proficiency test.

The purpose of class piano instruction is to equip non-piano majors with the keyboard proficiencies needed to be reasonably fluent in basic technical and reading skills for practical use as a professional musician.

MUSI 1166: Class Piano II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1165

Continuation of Music 1165.

MUSI 2100: Technology in Music

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: MUSI 1122

The development of practical experience with current computer applications and current technology specifically associated with music instruction and music performance. The course exposes students to current capabilities of technology as they relate to composition, instrumentation, performance and teaching.

MUSI 2111: Aural Skills III

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1112

For music majors. Advanced skill development in ear training and sight singing. Includes rhythmic and melodic dictation. Practical application includes some composition and improvisation.

MUSI 2112: Aural Skills IV

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2111

For music majors. Continuation of advanced skill development in ear training and sight singing. Includes rhythmic and melodic dictation. Practical application includes some composition and improvisation.

MUSI 2221: Music Theory III

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1122

For music majors. Advanced correlated study of music theory and harmony of common practice including chromatic harmony and 20th century harmonic techniques. Components include composition, improvisation, literature analysis and practical keyboard application.

MUSI 2222: Music Theory IV

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2221

For music majors. Continuation of advanced correlated study of music theory and harmony in common practice including analytical study of 20th century music. Components include composition, improvisation, literature analysis and practical keyboard application.

MUSI 3165: Class Piano III

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1166

Continuation of MUSI 1166.

MUSI 3166: Class Piano IV

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 3165

Continuation of MUSI 3165.

MUSI 3167: Class Piano V

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: MUSI 1165, MUSI 1166, MUSI 3165, and MUSI 3166

This course will allow students to continue their piano training and apply specific accompanying and instructional techniques to choral literature for the classroom.

MUSI 3200: Gospel Choir

0 Class Hours 2 Laboratory Hours 0-1 Credit Hours

The Gospel Choir is open to all students campus-wide. No audition is required to participate in this ensemble. The Gospel Choir performs twice each semester. Non-music majors are highly encouraged to enroll in this ensemble.

MUSI 3201: Men's Ensemble

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

The Men's Ensemble is open to all students campus-wide. No audition is required to participate in this ensemble. The Men's Ensemble performs twice each semester on collegiate level literature. Non-music majors are highly encouraged to enroll in this ensemble.

MUSI 3202: Women's Choir

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

The KSU Women's Choir is open to all students campus-wide. No audition is required to participate in this ensemble. The Women's Choir performs twice each semester on collegiate level literature. Non-music majors are highly encouraged to enroll in this ensemble.

MUSI 3210: Classical Guitar Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

This course is designed to introduce classical ensemble playing to guitarists. The weekly class sessions and performances will help the student develop skills in sight reading, classical guitar styles, and ensemble playing.

MUSI 3211: Jazz Guitar Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

This course is designed to introduce jazz ensemble playing to guitarists. The weekly class sessions and performances will help the student develop skills in the following areas: Sight Reading, jazz styles, chord comping, and ensemble playing.

MUSI 3212: Jazz Combo

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

This course introduces jazz improvisation to students for instrumental performance. Students will perform jazz standards from the Real Book and other sources while applying concepts and patterns studied in class.

MUSI 3220: Percussion Ensemble

0 Class Hours 2 Laboratory Hours 0-1 Credit Hours

The Percussion Ensemble provides students with the opportunity to study, rehearse, and perform literature for group percussion.

MUSI 3221: String Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

The String Ensemble will allow students to improve ensemble-playing skills in a chamber setting on like stringed instruments. Students will rehearse standard ensemble pieces as well as new compositions and arrangements.

MUSI 3222: Woodwind Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

The KSU Woodwind Ensemble provides students rehearsal and performance experience in chamber music settings. Students will experience literature in both classical and jazz idioms.

MUSI 3223: Brass Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

The Brass Ensemble is designed to improve ensemble playing in a chamber setting. Brass ensemble members will work on standards ensemble pieces as well as new compositions and arrangements.

MUSI 3224: Piano Ensemble

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

The Piano Ensemble provides students with the opportunity to perform piano works written for four or more hands in a variety of genres and styles.

MUSI 3225: Mixed Chamber

0 Class Hours 1 Laboratory Hours 0-1 Credit Hours

The Mixed Chamber Ensemble allows students to learn literature in a small group setting with the assistance of faculty coaches. The Mixed Chamber Ensemble focuses on intonation, blend, stylistic

awareness, ensemble precision, and knowledge of repertoire.

MUSI 3302: Vocal Literature: Musical Theater

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: ENGL 1101 and permission of the instructor.

Vocal literature, vocal techniques, and performance for the musical theater. This course will survey the musical repertory of standard major musical theater works. Students will prepare and perform songs, duets and group numbers from several musicals.

MUSI 3311: History of Music I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 1122 and MUSI 1107

A survey of Western music history and literature from the Ancient Greece to 1800.

MUSI 3312: History of Music II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 3311

A survey of Western music history and literature from 1800 to the present.

MUSI 3314: History of Rock and Roll

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is an in-depth study of the history and evolution of rock music, including the roots of rock and roll as well as rock styles and historical periods. Students will develop critical listening skills and will be able to identify important artists as well as artistic styles and song forms.

MUSI 3315: Vocal Literature

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222

Solo vocal literature from 1600 to the present.

MUSI 3316: Music and the Holocaust

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in ENGL 1102

An examination of the music and musicians of oppressed groups during the Holocaust provides an example of musical marginalization and oppression in the past to foster global understanding and tolerance in the present. Classical, folk, and popular styles of music will be included, as will Holocaust memorial music.

MUSI 3317: History of Opera

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222

This course surveys the development of European Operatic literature from the Florentine Camerata to the present.

MUSI 3318: Introduction to Symphonic Music

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Learning Support Prerequisites:

All Learning Support English and Mathematics courses if required.

Orchestral literature from preclassic to present including symphony, concert overture, incidental music, program symphony and tone poem.

Notes: Emphasis on standard literature.

MUSI 3319: History of Jazz

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1122 or permission of the instructor.

This course is an in-depth study of jazz styles, historical periods and innovative artists in the jazz idiom.

MUSI 3320: Form and Analysis

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2222

Techniques of structural analysis of musical compositions in a variety of styles and periods with emphasis on harmony and form. The analysis of contrapuntal form is included.

MUSI 3321: Advanced Ear Training

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222 and MUSI 2112

Extended training in harmonic dictation, sight singing, aural analysis and rhythm.

MUSI 3322: Jazz Theory and Composition

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2222

This course introduces the language of jazz and its application to jazz performance, improvisation, analysis and composition.

MUSI 3323: Jazz Arranging

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 3322, or permission of the instructor.

A study of jazz arranging techniques for jazz ensembles. Students will arrange works for big band and jazz combos.

MUSI 3324: Instrumentation/Arranging

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2222

A study of the characteristics of orchestral instruments, including scoring principals and techniques. In addition, the course includes the arranging of musical works for a variety of large and small vocal and instrumental ensembles.

MUSI 3326: Class Composition I

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "B" or better in MUSI 1121, permission of the instructor.

Students develop music composition skills by exploring basic techniques necessary for coherent creative expression. By writing original compositions for various instrumentations, students gain skills in the artistic use of pitch, rhythm, melody, timbre and harmony. 20th and 21st century styles and techniques are utilized, and students acquire skill in music improvisation. Students gain competency in the basics of music notation utilizing both calligraphy and composition software.

MUSI 3327: Class Composition II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 3326 or MUSI 3371

Students develop further music composition skill by exploring techniques necessary for coherent creative expression. By writing original compositions for various instrumentations, students gain abilities in the artistic use of pitch, rhythm, melody, timbre and harmony. 20th and 21st century styles and techniques are utilized. Students gain technology competency in the use of composition software and by learning the basics of digital audio and video editing of recorded performances.

MUSI 333 I: Choral Conducting

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2221

Fundamental elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques in practical conducting experiences involving vocal and instrumental ensembles.

MUSI 3332: Instrumental Conducting

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 222I

Fundamental elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques in practical conducting experiences involving vocal and instrumental ensembles.

MUSI 3333: Accompanying

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major; and permission of the instructor.

May be repeated for upper-division credit. For music majors. The practical application of accompaniment techniques.

MUSI 3334: Italian and English Diction

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: All developmental studies courses, if required. Must be a fully admitted music major.

Designed for the vocal music major. The study of the pronunciation, enunciation, and expression of the Italian and English language in singing.

MUSI 3335: German and French Diction

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: All developmental studies courses, if required and a grade of "C" or better in MUSI 3334

Designed for the vocal music majors. An applied performance laboratory for the study of the pronunciation, enunciation, and expression of the German and French language in singing.

MUSI 3336: Diction for Singers

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully-admitted music major.

This course will focus on applying the International Phonetic Alphabet to the transliteration of French, German, Italian, and English languages.

MUSI 3341: University Band

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

The University Band is a wind band that performs collegiate repertoire twice each semester. Non-music major wind and percussionists are strongly encouraged to enroll in this ensemble. No audition is required for the University Band.

MUSI 3342: Marching Band

0 Class Hours 6 Laboratory Hours (0-1) Credit Hours

Prerequisite: Audition required and prior high school or college instrumental or colorguard experience required.

This course develops the instrumental and visual performance skills of students within the college marching band setting. Objectives are to combine high-level musical/visual performance with uniform marching style to create entertaining shows for football games. This course is open to all students in all majors. Auditions are required for participation and occur the week before fall classes begin. This course is offered every fall semester; max 300 members.

MUSI 3343: Jazz Ensemble

0 Class Hours 4 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition and permission of the instructor.

This course may be repeated for upper-division credit. The School of Music offers two large Jazz Ensembles that perform both on- and off-campus in concert. The ensembles perform a variety of styles within the jazz idiom including traditional swing, bop, Latin, Afro-Cuban, and funk.

MUSI 3344: University Philharmonic Orchestra

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

Prerequisite: Membership is open to all students with previous experience playing an instrument.

May be repeated for upper-division credit. Study, rehearsal, and concert performance of literature for orchestra. No audition is required and non-music majors with previous orchestral experience are encouraged to play in the group.

MUSI 3345: Wind Symphony

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition

This course offers music majors, minors, and non-music majors the opportunity to study, rehearse, and perform literature for the wind band medium. This course may be repeated for upper-division credit or zero credit. Membership in the Wind Symphony is by audition only.

MUSI 3346: Chamber Singers

0 Class Hours 6 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition.

May be repeated for upper-division credit. Study, rehearsal and performance of choral literature. Membership in Chamber Singers is by audition only.

MUSI 3347: Wind Ensemble

0 Class Hours 6 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition.

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for wind ensemble. Membership in the Wind Ensemble is by audition only.

MUSI 3348: Symphony Orchestra

0 Class Hours 6 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition.

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for orchestra.

Notes: Membership in the orchestra is by audition only.

MUSI 3349: Chorale

0 Class Hours 3 Laboratory Hours 0-1 Credit Hours

May be repeated for upper-division credit. Study, rehearsal and concert performance of literature for choir.

MUSI 3350: Advanced Choral Conducting/Literature

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2112, MUSI 2222, and MUSI 3331

Advanced elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques through choral literature in practical conducting experiences involving choral ensembles. Required laboratory component.

MUSI 3351: Advanced Instrumental Conducting/Literature

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222 , MUSI 2112 , and MUSI 3332

Advanced elements of conducting including baton technique, score reading, cueing, expression, interpretation and rehearsal skills with an emphasis on applying these techniques through band and orchestra literature in practical conducting experiences involving instrumental ensembles. Required laboratory component.

MUSI 3352: Opera Theater

0 Class Hours 6 Laboratory Hours 0-1 Credit Hours

Prerequisite: Audition.

May be repeated for upper-division credit. Techniques for the singing actor studied through the production of scenes from the dramatic repertory.

MUSI 3353: Jazz Improvisation I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: MUSI 1122

An introduction to jazz improvisation for any instrument and application of jazz improvisation techniques to jazz repertoire including modal compositions, blues, minor blues, and compositions with major cadences.

MUSI 3354: Jazz Improvisation II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2222 and MUSI 3353, or permission of the Jazz Studies director.

A continuing methodology designed to improve jazz improvisation, for any instrument and application in jazz, that focuses on rhythm changes form, altered dominants, bebop concepts, and unconventional harmonies.

MUSI 3355: Jazz Improvisation III

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 2222 and MUSI 3354, or permission of the Jazz Studies director.

A continuing methodology designed to improve jazz improvisation, for any instrument and application in jazz, that focuses on melodic minor derivations, cycling altered dominants, pentatonic concepts, and non-traditional harmonies.

MUSI 3360: Jazz Piano

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: A grade of "C" or better in MUSI 1165

An introduction to jazz piano skills for the non-pianist including interpreting chord symbols and sophisticated harmonies, learning functional voicings, and performance competency.

MUSI 3367: Vocal Skills I

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: All developmental studies courses if required. Non-music majors require permission of the instructor.

Vocal proficiency for music majors and non-majors. Emphasis on tone production, diction, performing skills and the physiology of the voice.

MUSI 3368: Vocal Skills II

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: MUSI 3367

Continuation of MUSI 3367.

MUSI 3371: Composition I

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222 and permission of the instructor.

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and 20th century styles in both small and large forms and for a variety of media.

MUSI 3372: Composition II

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 3371 and permission of the instructor.

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and 20th century styles in both small and large forms and for a variety of media.

MUSI 3390: Music Entrepreneurship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Acceptance into the Music Entertainment and Business program or completion of MUSI 2222

Students will work on a series of projects to understand aspects of what is required to have a successful career in the music industry in the 21st century and build the skills beyond musicianship that will aid in attaining musical goals.

MUSI 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/internship (Career Services).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore-, junior, or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

MUSI 3398: Internship

1-12 Credit Hours

Prerequisite: Approval of School Director.

A supervised, credit earning work experience of one academic semester with a previously approved business firm, private agency or government agency.

Notes: Credit is allowed only in elective areas.

MUSI 341 I: Survey of African-American Music

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

An examination of the development of African-American music from its roots in Africa to the present time in America. The course examines the various genres of African-American music created by Africans including: spirituals, work songs, blues, gospel, jazz, rhythm and blues, and art music. The course also examines the development of the black church, minstrels, black classical music artists, and black classical music composers and their compositions.

MUSI 4007: Scoring for Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 1020, or MUSI 1120, or MUSI 1121 (Each with a "C" or better)

This course provides background, training and experience for the student in the area of scoring for media including film, television and gaming.

MUSI 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor, major area committee and department chair prior to registration.

Selected topics of an advanced nature, which may include original research projects.

MUSI 4410: Contemporary Music Literature

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222

Music literature from Impressionism to the present.

MUSI 4412: Survey of American Music

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 1107

Through an examination of the role of music in American society, and a study of American musical works from the Native Americans to the present day, this course provides a context-based understanding of the cultural history of the United States and develops skills in critical analysis.

MUSI 4413: Piano Literature I

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 1122 and permission of the instructor.

Keyboard literature from 1600 to the present.

MUSI 4414: Piano Literature II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 4413 or permission of the instructor.

Continuation of keyboard literature from 1600 to the present.

MUSI 4419: Introduction to Schenker

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222 with a "C" or better

A study of tonal, common-practice music in the Western art music tradition from the perspective of Schenkerian (reductive) analysis. Activities include investigations of harmony, voice leading, form, and implications for performance. Encourages students to debate the merits of different analyzes of the same work. Culminates in scholarly research by the student that builds upon previous Schenkerian analyzes. A writing-intensive course.

MUSI 4420: Counterpoint

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222

Analysis and principles of writing in the contrapuntal styles of the common practice period to the present.

MUSI 4421: Contemporary Analytical and Compositional Techniques

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222

This course surveys 20th- and 21st-century musical styles and theoretical systems, teaching students how to analyze a variety of works in which Common-Practice Period norms of tonality, rhythm, form, timbre, and texture have been superseded by new developments. Corresponding compositional exercises deepen student understanding of these new approaches. Topics include free atonality, serialism, neoclassicism, minimalism, allusions, chance, and electronic composition. The course prepares students to analyze music, write model compositions, and develop analytical papers.

MUSI 4422: Theory Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222

This course discusses and practices methods of analyzing tonal, common-practice music in the Western art music tradition. Topics include Roman numeral analysis, tonal counterpoint, formal analysis, and Schenkerian (reductive) analysis.

MUSI 4423: Current Directions in Musicology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 3312

This course offers an introduction to musicology including its origins, development and methodologies. Students will develop skills necessary for critical enquiry in music through engagement with theories of historiography, aesthetics, and performance practice, as well as critical assessment of current issues in the field.

MUSI 4430: Piano Pedagogy I

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: All developmental studies courses, if required. Must be a fully admitted music major.

Beginning, elementary, and intermediate level teaching materials and methods for piano.

MUSI 4431: Piano Pedagogy II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 4430 and permission of the instructor.

Continuation of beginning-, elementary-, and intermediate-level teaching materials and methods for piano.

MUSI 4433: Voice Pedagogy

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MUAP 2222

Pedagogical methods, vocal physiology and literature for training voices from beginning to advanced levels.

MUSI 4434: Vocal Pedagogy for Ensemble Singing

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: MUSI 3334

Pedagogical methods for voice and vocal ensembles, vocal physiology and literature for training voices from beginning to advanced levels.

MUSI 4435: (Name of Instrument) Pedagogy and Literature

1 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222

Pedagogical methods, techniques, physiology and literature in the principal performance concentration area.

MUSI 4436: Jazz Pedagogy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (MUSI 1143 or MUSI 3343), and MUSI 3380.

This course introduces students to the methodologies and resources of jazz pedagogy. Students will learn appropriate literature for a variety of age levels as well as rehearsal techniques for both the large and small jazz ensemble.

MUSI 4471: Composition III

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 3372 and permission of the instructor.

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and 20th century styles in both small and large forms and for a variety of media.

MUSI 4472: Composition IV

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 4471 and permission of the instructor.

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and 20th century styles in both small and large forms and for a variety of media.

MUSI 4473: Composition V

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 4472

Individually tailored instruction is utilized for the development of music composition skills by writing in traditional and 20th century styles in both small and large forms and for a variety of media.

MUSI 4480: Research for Senior Recital

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Senior standing in applied performance.

A research project based on the literature to be presented in the senior recital. Analysis of the literature. Program notes to be drawn from research and analysis.

MUSI 4490: Special Topics in Music

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected special topics of interest to faculty and students.

MUSI 4495: Senior Seminar in Music

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Completion of applied studies and completion of 90 hours of course work and permission of the instructor and capstone committee one semester prior to registration.

A capstone course designed to complete the major by integrating the student's prior academic, theoretical and applied experiences in music. Students fulfill projects in areas of musical performance, lecture presentations, creative work, scholarly documents, pedagogy or arts advocacy.

Music - Applied

MUAP 1101: Music Symposium

0 Class Hours 2 Laboratory Hours 0 Credit Hours

All music majors are required to take this course in conjunction with private studio instruction. Through lecture, master classes, recitals, and performances, they will broaden understanding and appreciation of a variety of styles of music and pedagogy.

MUAP 1111: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 1112: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 1113: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 1121: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 1122: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 1123: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 2211: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 2212: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 2213: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 2221: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 2222: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 2223: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 3311: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 3312: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 3313: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 3320: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

MUAP 3321: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 3322: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Notes: Recital component

MUAP 3323: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4411: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Notes: Recital component

MUAP 4412: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Recital component

MUAP 4413: Applied Lessons

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Recital component

MUAP 4421: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Recital component

MUAP 4422: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Recital component.

MUAP 4423: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Recital component

MUAP 4521: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4522: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4523: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4621: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4622: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

MUAP 4623: Applied Lessons

1 Class Hours 0 Laboratory Hours 2 Credit Hours

Music and Entertainment Business

MEBU 1101: Introduction to the Music and Entertainment Business

1 Class Hours 0 Laboratory Hours 1 Credit Hours

An introduction to the fundamental concepts of the business practices related to the music and entertainment industry. The course will focus on skills necessary for beginning and maintaining a professional career in the music and entertainment industry. The course will have an emphasis on practical applications of classroom knowledge to the music business and entertainment environment.

MEBU 2270: Entertainment Media Production

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of MEBU Director and class instructor

This course is designed to equip students with the skills to gain a basic working knowledge of media production as it applies to the entertainment industry. Specifically, students are introduced to audio and video production techniques through hands-on learning modules, relevant lectures, and real world technology project development and implementation. This course will establish a solid foundation for both immediate student application and further specialized media production studies.

MEBU 3100: Fundamentals of the Music and Entertainment Business

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, and permission of the MEBU director.

This course is a survey of the music and entertainment industry, its various prominent commercial and regulatory organizations, and its developmental history and future directions. Specific topics covered in this course include music and entertainment company operations, income generation, distribution models, publishing technologies, film, television, new media, and emerging trends.

MEBU 3370: Fundamentals of Audio Production and Technology

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MEBU 2270

This course provides students with fundamental learning opportunities focused specifically on the field of audio production & technology. Students will gain specialized knowledge, vocabulary, and skills related to audio recording techniques, the principles of sound and hearing, computer software/hardware, live sound production, studio equipment, and a broad range of audio production competencies. Students learn through a balance of relevant lectures, hands-on workshops, and real-world recording, mixing, and mastering projects.

MEBU 3398: Internship in the Music and Entertainment Business

1-3 Credit Hours

Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.

This internship is intended for music and entertainment business program students who show interest in an area of study and wish to pursue a discipline of practical and applied experience in greater depth. Student must be directed by the program director and sponsored by an approved music or entertainment business.

MEBU 4100: Emerging Trends of the Music and Entertainment Business

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100 , and permission of the MEBU director.

This course is an in-depth study of topics of specific relevance to the music and entertainment industry, with a strong emphasis on experiential learning and practical application of classroom knowledge to the music and entertainment business environment. In-depth focus on entrepreneurship, business plans, practical experiences, on-the-job training, resume-building and exploration of career opportunities in the music and entertainment industry.

MEBU 4200: Current Topics in the Music and Entertainment Business

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.

Selected current topics of interest to faculty and students that focus on the Music and Entertainment Business. In-depth focus on ethics and ideologies, convergence, sponsorships, endorsements, technologies, brands, licensing and applications of copyright law, business plans, intellectual property rights and the future of the music and entertainment industry.

MEBU 4470: Advanced Audio Production and Technology

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MEBU 3370

This course is an advanced exploration into audio recording techniques and studio production. This course is taught in the classroom and a professional studio environment providing students with an immersive experience to learn, practice, and implement real-world audio production techniques. Students will gain up-to-the-minute skills by utilizing state-of-the-art recording equipment and shadowing audio industry professionals. Students will gain practical audio project management and implementation experience by overseeing a large-scale recording studio project.

MEBU 4490: Special Topics in the Music and Entertainment Business

2 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours, recommended minimum cumulative GPA of 2.8, application and acceptance to the Music and Entertainment Business Certificate program, successful completion of MEBU 3100, and permission of the MEBU director.

Selected special topics of interest to faculty and students that focus on the Music and Entertainment Business.

Music Education

MUED 2210: Music Education Colloquium

1 Class Hours 1 Laboratory Hours 0-1 Credit Hours

Prerequisite: Formal admission to the School of Music.

Music Education Colloquium is an introduction to the development of instructional materials and professional artifacts through observations, peer teaching, and the application of technological resources.

MUED 3301: General Methods, Materials and Curriculum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222, EDUC 2110, and admission to the Teacher Education program.

The development of specific teaching skills, techniques and materials to support the role of the elementary/general music teacher. The course prepares prospective general track music specialists for all aspects of the role including curriculum design and the incorporation of a wide variety of methodologies into classroom instruction. Field component and peer teaching required. This course is a requirement for all music education majors.

MUED 3302: Choral Methods, Materials, and Curriculum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222, MUSI 4434, EDUC 2110, and admission to the Teacher Education program.

The development of the specific teaching skills, techniques and materials to support the role of the choir director and vocal music teacher. The course prepares prospective choral/vocal track music specialists for all aspects of the role including curriculum design, rehearsal procedures, methodologies, and the study of appropriate choral literature. Field component, peer teaching and laboratory conducting are required. This course is a requirement for all choral/vocal music education majors.

MUED 3303: Instrumental Methods, Materials and Curriculum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222, EDUC 2110, and admission to the Teacher Education program.

The development of specific teaching skills, techniques and materials to support the role of band director and instrumental music teacher. The course prepares prospective instrumental track music specialists for all aspects of the role including curriculum design, rehearsal procedures, methodologies and the study of appropriate band literature. Field component, peer teaching and laboratory conducting are required.

MUED 3305: Educational Literature and Technology

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 2222, EDUC 2110, and admission to the Teacher Education program.

This course will examine musical literature appropriate for P-12 music classrooms and assist in

developing teaching strategies appropriate to a wide range of skill levels. In addition, students will learn to utilize various technology programs in the classroom to assist with course development, ensemble performance, and overall student achievement.

MUED 3308: Music Education for Exceptional Students

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MUSI 2222; admission to the Teacher Education program.

Focus on characteristics and abilities of individuals with disabilities and the effect upon musical learning and performance. Students will develop materials and teaching strategies in music appropriate to students with special needs. Content includes current legal, educational, and therapeutic issues as they relate to the teaching of music. This course requires field experiences.

MUED 3314: Choral Literature

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 1110 and MUSI 2222

A survey of large and small choral works from the Renaissance to the present with emphasis on practical performing editions and special attention to contemporary literature.

MUED 3334: Foundations of Music Education

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: MUSI 1122

An exploration of the interaction of historical, social, and philosophical forces and the development of music education, and the justification of a music education program in schools. Issues of career opportunities in music education are included. This course is required for all music education majors.

MUED 3340: Music for Early and Middle Grades

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Admission to the Teacher Education program.

A course designed for preparing elementary school educators to integrate meaningful musical experiences into the classroom. Prospective elementary classroom educators will develop basic concepts, skills, methods of instruction, and teaching competencies in the specific areas of music.

MUED 3351: String Techniques

2 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

This course provides basic teaching and playing competencies on violin, viola, cello and bass. Students learn technical skills on the instrument and a variety of pedagogical strategies to be used while teaching in a group or individual setting. Students gain the ability to correctly sequence teaching episodes and diagnose and correct common problems in upper-level string playing.

MUED 3352: String Techniques Class II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

This course provides basic teaching and playing competencies on cello and/or double bass. Students learn technical skills on the instrument and a variety of pedagogical strategies to be used while teaching in a group or individual setting. Students gain the ability to correctly sequence teaching episodes and will be able to diagnose and correct common problems in lower string playing.

MUED 3353: Guitar Techniques Class

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are REQUIRED for all music education majors. They are taken by advisement according to track and concentration. Guitar Techniques Class provides for basic teaching and playing competencies on guitar.

MUED 3355: Voice Techniques Class

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major

Instrument Techniques are REQUIRED for all music education majors. They are taken by advisement according to track and concentration. Voice Techniques Class provides for basic teaching competency and basic vocal technique in the area of voice.

MUED 3357: Percussion Techniques Class

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required for all music education majors. They are taken by advisement according to track and concentration. Percussion Techniques Class provides for basic teaching competency in the area of percussion instruments.

MUED 3360: (Name of Instrument) Techniques

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required for all music education majors. They are taken by advisement and provide for the necessary competencies in each of the music education track specializations.

MUED 3361: Brass Techniques

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrumental techniques are required for all music education majors, and taken by advisement according to concentration. Brass Techniques Class provides basic teaching and playing competency on

trumpet, horn, trombone, euphonium, and tuba.

MUED 3362: Brass Techniques Class II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument techniques are required for all music education majors. They are taken by advisement according to concentration. Brass Techniques Class II provides for basic teaching and playing competency on trombone, euphonium and tuba.

MUED 3363: Brass Techniques Class III

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major and have the permission of the instructor.

Advanced Techniques in Brass Instrumental pedagogy and performance competency.

MUED 3365: Woodwind Techniques Class I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required for all music education majors. They are taken by advisement according to concentration. Woodwind Techniques Class I provides for basic teaching and playing competency on clarinet and saxophone.

MUED 3366: Woodwind Techniques Class II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required for all music education majors. They are taken by advisement according to concentration. Woodwind Techniques Class II provides for basic teaching and playing competency on flute and oboe.

MUED 3367: Woodwind Techniques Class III

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major and have the permission of the instructor.

Advanced Techniques in Woodwind instrumental pedagogy and performance competency.

MUED 3370: Marching Band Techniques

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

This course provides a practicum in budgeting, organizing, parent groups, rehearsing, planning, and performance of a marching band program at the high school level. Drill software will be used to facilitate the creation of formations, transitions, and overall design of marching band shows.

MUED 3371: Brass/Woodwind/Percussion Techniques

1 Class Hours 1 Laboratory Hours 2 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required by all music education majors and taken by advisement according to concentration. Brass/Woodwind/Percussion Techniques provides a semester overview, including pedagogical principles designed for Choral, General, Guitar, and Piano Majors.

MUED 3372: Strings/Guitar Techniques

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Must be a fully admitted music major.

Instrument Techniques are required by all music education majors. They are taken by advisement according to track and concentration. Strings/Guitar Techniques provides a split-semester overview, including pedagogical principals designed for Choral, General, and Piano Concentration (not Instrumental, Guitar or String.)

MUED 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/internship (Career Services).

A supervised work experience program for a minimum of two academic semesters at a site in business, industry or government. For sophomore-, junior-, or senior-level students who wish to obtain successive on the job experience in conjunction with their academic training.

MUED 3398: Internship

1-12 Credit Hours

Prerequisite: Previous baccalaureate degree, acceptance into the Teacher Education program, and approval of music education program coordinator.

Full-time teaching experience in a work setting, supervised by music education faculty. Student must comply with requirements indicated by the Center for Education Placements and Partnerships of the Bagwell College of Education. The student attends regularly scheduled team-taught music education seminars.

MUED 4000: Advanced Pedagogy and Arranging

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Acceptance into the Teacher Education program.

Students will gain advanced skills in diagnosing and correcting pedagogical issues appropriate for secondary music students. Students will learn to utilize appropriate technology and skills to arrange music for developmental students.

MUED 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor, major area committee, and director of the School of Music prior to registration.

Selected topics of an advanced nature, which may include original research topics.

MUED 4470: Student Teaching/Seminar

12 Credit Hours

Prerequisite: Admission to Student Teaching and successful completion of senior recital.

Full-time teaching experience in music education with a designated school district, under the supervision of a cooperating teacher in the field, and a university supervisor. The student must have approval from the School of Music and the Center for Education Placements and Partnerships. The student attends a regularly scheduled team-taught music education seminar.

MUED 4490: Special Topics in Music Education

1-3 Credit Hours

Prerequisite: Approval of instructor and Director of School of Music prior to registration.

Selected special topics in music education, which are consistent with research, curriculum, and/or creative practices.

MUED 4650: Yearlong Clinical Experience I

0 Class Hours 4 Laboratory Hours 1 Credit Hours

Prerequisite: Admission to Music Education Admission to Teacher Education Admission to Yearlong Clinical Experience Issued Pre-service Certificate

Corequisite: EDUC 4610

This course is the first semester of an intensive and extensive coteaching yearlong clinical experience in music education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

MUED 4660: Yearlong Clinical Experience II

0 Class Hours 40 Laboratory Hours 10 Credit Hours

Prerequisite: MUED 4650, Educator Ethics Assessment 360 Eligibility, and GACE Eligibility

This course is the second semester of an intensive and extensive co-teaching yearlong clinical experience in music education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

Nursing

NURS 3209: Theoretical Basis for Holistic Nursing & Health

4 Class Hours 6 Laboratory Hours 6 Credit Hours

Prerequisite: BIOL 3317 (may be taken concurrently).

Corequisite: NURS 3309.

The first nursing course is designed to introduce the student to the philosophical and theoretical basis for professional nursing in primary and secondary care settings. The student is encouraged to be self-assessing, self caring, and self directive. Emphasis is on the six processes of nursing, self care requisites, and holistic health. Learning experiences are provided in the Nursing Learning Resource Center, KSU's Wellness Center and selected primary and secondary care settings.

NURS 3302: Professionalism and Ethics in Nursing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3209, NURS 3309 and BIOL 3317

Corequisite: NURS 3303 and NURS 3313

Students analyze historical, contemporary, and global perspectives on the role of nursing in society, and on professional nursing roles within the context of contemporary health care delivery systems. Primary emphasis is on the ethical and legal foundations of nursing, including exploration of common ethical and legal dilemmas encountered at the beginning and end of life, as well as in everyday nursing encounters. In addition, students develop communication skills essential to collegial nursing practice and to collaborative roles within interdisciplinary health care teams. Students apply and critique selected models of ethical decision making, and explore their utility for nursing practice and for assuming responsibility and accountability for nursing's ethic of care and commitment to client advocacy.

NURS 3303: Clinical Pharmacology for Nurses

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3209 or registered nurse status.

An introduction to fundamental pharmacologic principles and their application. The nursing process approach will provide the theoretical base for the knowledge and skills needed to safely administer medications.

NURS 3309: Health Assessment

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: BIOL 2261

Corequisite: NURS 3209

Introduction to basic interviewing and physical assessment techniques involved in the process of health assessment of clients. Emphasis is placed on recognition of normal findings, and common deviations association with pathologies.

NURS 3313: Adult Health Nursing

3 Class Hours 9 Laboratory Hours 6 Credit Hours

Prerequisite: NURS 320, NURS 3309 and BIOL 3317

Corequisite: NURS 3302 and NURS 3303

Application of the processes of nursing to commonly encountered problems of middle-aged and elderly adults.

NURS 3314: Mental Health Nursing

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3209, NURS 3302 (or concurrent with accelerated program status), NURS 3303 (or concurrent with accelerated program status), NURS 3309, NURS 3313, (or concurrent with accelerated program status), and BIOL 3317

Application of the processes of nursing to commonly encountered mental health problems across the lifespan.

NURS 3318: Parent-Child Nursing

3 Class Hours 9 Laboratory Hours 6 Credit Hours

Prerequisite: NURS 3209, NURS 3302, NURS 3313, NURS 3303, and BIOL 3317

Application of the processes of nursing to commonly encountered problems of young adults in the childbearing years, and newborns, children, and adolescents.

NURS 3330: Health Systems & Health Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WELL 1000 or Permission of the Instructor

This course integrates health policy with public health systems in the United States in order to examine the impact on the health of Americans and priority populations. A comprehensive comparison of American health systems to those of other countries and the availability and delivery of health services and impact on health will be included.

Notes: This course is crosslisted with PHE 3330

NURS 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the department chair.

A supervised work experience program for a minimum of two academic semesters at a site in a health care agency. Work experience is combined with seminars conducted at intervals during the semester. For senior level students who wish to obtain on the job experience in conjunction with their academic program. Credit is allowed only in elective areas.

NURS 3398: Internship in Health Care

1-3 Credit Hours

Prerequisite: Approval of the department chair.

A supervised work experience program for one academic semester in a health care agency. Work experience is combined with seminars conducted at intervals during the semester. For students who wish to obtain on the job experience in conjunction with their academic program. Credit is allowed only in elective areas.

NURS 4000: Service Learning in Nursing

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

NURS 4400: Directed Study in Nursing

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics external to regular course offerings, which may include original research projects.

NURS 4402: Nursing Research for Evidence-based Practice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3209 (may be taken concurrently for accelerated students) and STAT 1107

This course prepares students to understand the role of research in evidence-based practice in nursing and healthcare. Students learn to locate, appraise, and integrate reliable sources of evidence based on models of evidence-based practice as a scholarly endeavor.

NURS 4412: Community Health Nursing

2 Class Hours 3 Laboratory Hours 5 Credit Hours

Prerequisite: NURS 3313 and NURS 3314 and NURS 3318

Application of the processes of nursing to commonly encountered health problems of families within the community.

NURS 4414: Complex Health Nursing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313, NURS 3314, NURS 3318 (or concurrent with accelerated program status).

Corequisite: NURS 4412 (except for accelerated students).

This course applies the processes of nursing to individual clients and their families. The focus is on individual clients who are experiencing complex health problems.

NURS 4416: Leadership in Nursing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 4414

Designed to develop the leadership skills necessary for the beginning practice as a registered nurse. Focuses on the role of the nurse as part of the larger health care delivery system, with emphasis on the development of leadership and management skills useful in delivery of high quality, client focused care. Topics include client care/case management, budgetary management, development of teamwork, roles of health care providers and health care coordinators, integration of community health care systems, and health program development and evaluation.

NURS 4417: Advanced Clinical Practicum

0 Class Hours 12 Laboratory Hours 4 Credit Hours

Prerequisite: NURS 4412 and NURS 4414

Designed to provide a precepted clinical experience for the non-licensed and registered nurse student. Provides an opportunity to practice under the guidance and supervision of a preceptor, and assume the role of the professional nurse in a variety of settings. For the registered nurse student, it provides an opportunity to practice in a new area or develop new clinical skills. To the course focuses on the role of the professional nurse as care provider, communicator, teacher, leader and manager of care for a group of clients, and as a consumer of research that is applicable to individual clients and groups of clients. An appropriate clinical project demonstrates application of principles of nursing care and/or organizational development.

NURS 4421: Acute Patient Deterioration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or senior status with successful completion of NURS 3313 or Registered Nurse status.

This course is designed to enhance students' abilities to recognize and respond appropriately to common acute patient deterioration situations in a medical-surgical setting. Through delivery of didactic material, video vignettes, case studies, concept mapping, pattern recognition exercises, online web site tutorials, clinical narratives, simulation scenarios, and fieldwork, students will have the opportunity to learn and demonstrate the necessary actions to effectively and efficiently manage a crisis situation.

NURS 4422: Women and Health

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the instructor.

This course is designed to introduce students to a wide range of health issues affecting women across the life span. Women's health issues and problems as they are influenced by physiological, psychological, economic, cultural, emotional and social factors will be reviewed. The course will focus on topics such as the politics of women's health care, the reproductive system and its relation to the allopathic treatment of women, fertility control and reproductive alternatives. Issues of mental health, substance use and abuse, violence and aging will be examined.

NURS 4423: International Health Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Completion of 60 hours or permission of the instructor.

Designed to serve a variety of students who are interested in international or global health policy issues. Beginning with an historical overview of global health, the course progresses through the developmental levels of countries and people, incorporating a macro and microanalysis, and considering cultural, social, economic, political, environmental, demographic, biological, technological and ethical issues which impact international health policy.

NURS 4424: Advances in Cardiovascular Nursing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313 or Registered Nurse status.

The purpose of the course is to provide students with an in depth knowledge of cardiovascular nursing, including, assessment, diagnostic tests, complications and medical and nursing management. Students will be given an opportunity to participate in selective observational and simulated experiences related to cardiovascular problems.

NURS 4425: Nursing as Caring

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior level or permission of the instructor.

Designed to explore the multiple perspectives of caring as the foundational science of nursing. Developing a personal meaning of caring will be emphasized as it relates to caring for self, caring for others, and caring as a member of the nursing profession.

NURS 4426: Nursing Practicum in Oaxaca

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Sophomore nursing status plus one Spanish course or fluency in Spanish from any other source.

This course is designed for nursing students or practicing nurses to work within the Oaxaca, Mexico Department of Public Health Clinics, live with a local family, receive daily Spanish conversational tutoring from faculty from the University of Oaxaca, and learn about Spanish culture.

NURS 4427: Laying the Foundations for Technological Competence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313

Designed to promote technological familiarity in nursing with emphasis placed on the nursing management of clients with specialized equipment. Detailed in-services will be conducted at selected agencies.

NURS 4428: Survivorship: The Cancer Model

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior status or permission of faculty.

This course will introduce students to the growing phenomenon of cancer survivorship. Issues related to medical care, quality of life, economics, political influences, genetic implications, access to health care and adaptation for the cancer survivor will be explored. This is an elective course, which augments and enhances the basic oncology concepts of the curriculum, and exposes the student to new ways of thinking about cancer survivors.

NURS 4429: Disaster/Emergency Preparedness

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313 or Registered Nurse status.

This course is designed to enhance emergency and disaster preparedness for students by providing knowledge and training in preparedness, mitigation, response, and recovery.

NURS 4430: Gerontological Nursing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3309

This course is designed to serve nursing students who are interested in the health care of the aging adult. The course, within the context of cultural perspectives, addresses the healthy aging process and health promotion strategies; pathophysiological aspects of aging and treatment regimens; and end of life issues.

NURS 4431: Psychoneuroimmunology: Mind Body Pathways

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level Nursing course or permission of the instructor.

This course takes a novel approach to the interdisciplinary field of psychoneuroimmunology (PNI) by exploring research and providing practical applications that illustrate how stress over time may impact psychological and physical well-being. Students will be exposed to current PNI literature, experientially explore effects of stress and coping strategies, and participate in a PNI laboratory assignment. Topics will include, but are not limited to: Mind-Body Pathways; Stress and Illness; Metabolism, Growth, and Stress; Sleep and Stress; Coping and Stress Management.

NURS 4432: Nursing in Faith Communities

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313 or Registered Nurse status.

This nursing elective provides a basic overview of the role and responsibilities of the nurse working in faith communities. The student will gain an understanding of meeting, managing, and promoting the health of persons in faith communities that address models of faith community nursing, diverse faith traditions, persons with special health care needs, legal and ethical issues, strategies and techniques to meet health and spiritual needs across the life span, and developing inter-collegial support systems.

NURS 4433: Issues of Nursing Practice in a Multicultural Setting: Abu Dhabi, United Arab Emirates

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3209, NURS 3309, and BIOL 3317

This seminar course focuses on aspects of providing nursing care to patients in a multicultural setting. Extensive experiential activities are designed to provide the student with opportunities for analysis of nursing care by licensed nurses from diverse backgrounds to a multicultural patient population. The experiential activities will occur in acute and community care settings in Abu Dhabi, United Arab Emirates.

NURS 4440: Palliative and End of Life Care

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: NURS 3313 or Registered Nurse status.

This course is an exploration of the physical, psychological, social, spiritual, and ethical issues surrounding care of persons in need of comfort, palliation, and excellent end-of-life care. The course employs the End of Life Nursing Education Consortium standards and guidelines as a framework for learning.

NURS 4490: Special Topics in Nursing

1-3 Credit Hours

Prerequisite: Permission of the instructor.

Selected special or current topics of general interest to nursing faculty and students

Peace Studies

PAX 1102: Understanding Peace and Conflict

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of Learning Support or concurrent registration, if required.

This course explores conceptions and practices of peace and justice. Examining peace and justice from western and non-western perspectives, and through a variety of disciplinary frameworks, this course focuses on the diverse forms of peace and justice, as well as the social and cultural contexts that have been shaped by these perspectives.

PAX 3100: Peace and Religion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or PAX 1102

This course examines selected world religions and peace through an interdisciplinary lens. Drawing primarily on religious and philosophical resources and other cultural texts, the course analyzes the conduct of religions in peace work and religious ideas about peace and peacebuilding.

PAX 3220: Peace and Film

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or PAX 1102

This course offers an interdisciplinary survey of international cinema's use of film in peace work and the depiction of peace in film.

PAX 3300: Peace and the Environment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or PAX 1102

This course is a survey of some of the major figures, traditions and texts on the relationship between peace and the environment from Western and non-Western perspectives. The course also poses important questions such as "How can we make peace with the environment?" "What are the most challenging threats to the environment today?" and "How can we live harmoniously with the non-human world?"

PAX 3600: Theories of Non-violence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or PAX 1102

This course is a survey of the major figures and texts on the topic of non-violence from both Western and non-Western perspectives.

PAX 3780: Trends in Peace Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course focuses on current issues, trends, and activism in the field of Peace Studies. The course is interdisciplinary and includes international content in English. Course may be repeated with a change in content.

PAX 4000: Peacebuilding Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or PAX 1102

This course covers the basic skills, tools, processes and frameworks required for effective peacebuilding across cultures. Students apply theoretical and practical knowledge of peace and peacebuilding to real life peacebuilding campaigns as they identify and execute fundamental techniques of non-violent activism.

PAX 4400: Directed Study in Peace Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Directed Study in Peace Studies. Covers special topics and seminars of an advanced nature and

external to regular course offerings.

PAX 4490: Special Topics in Peace Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

A study of selected special topics of interest to faculty and students. Course may be repeated with a change in content.

PAX 4499: Seminar in Peace Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHIL 3303 and completion of 60 credit hours.

A seminar course for the Peace Studies Minor that integrates students' prior coursework with the field of peace studies. Working in a collaborative manner, students design their own capstone learning projects in consultation with faculty.

Philosophy

PHIL 2100: Values and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements Prerequisite: ENGL 1101

The course is a philosophical examination of contemporary values and their place within society from a global perspective, focusing on issues of global inequality, cultural relativism, and the question of a global ethic.

PHIL 2110: Religions of the World

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of all Learning Support English requirements Prerequisite: ENGL 1101

The course is a study of selected world religions with concentration on the origin and major periods of the conceptual, scriptural, and doctrinal development of these religions. Some topics include the nature and identity of religious experience, hermeneutics, mysticism, religious practice, and the place of religion in contemporary society.

PHIL 2200: Ways of Knowing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, Successful completion of Mathematics Learning Support or concurrent registration.

A philosophical, critical examination of the different ways of knowing and thinking in the humanities, natural sciences, and social sciences including ethical and religious perspectives. Emphasis is on the nature and purpose of philosophical inquiry as applied to selected issues within philosophy and the broader implications of these methods and questions for other disciplines and in everyday contexts.

Notes: Offered as an online course.

PHIL 2500: Logic

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 and MATH 1101 (or equivalent).

The course is an introduction to deductive logic with focus on the theoretical and practical aspects of categorical propositions and syllogisms, truth function logic, the method of natural deduction, and predicate logic.

PHIL 2700: Methods and Themes in Comparative Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course focuses on differing methods and conceptions of philosophical thought and practice articulated primarily in Non-Western traditions. Students develop skills in close reading of texts, analyzing concepts orally and in writing, and understanding the significance of historical/social contexts in the formation of philosophical traditions. Themes may address topics such as conceptions of reality, self, and society. Philosophies considered may include East Asian, South Asian, Latin American, African, Middle Eastern, and Indigenous.

PHIL 3000: Ancient and Medieval Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of the topics, problems, and doctrines of ancient and medieval western philosophers including the pre-Socratics, Plato, Aristotle, Augustine, and Aquinas.

PHIL 3010: Modern Western Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of the topics, problems, and doctrines of modern western philosophers beginning with Descartes and concluding with Kant.

PHIL 3020: American Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of major topics and philosophers in the United States from the colonial period through the twentieth century including Jefferson, Emerson, Royce, DuBois, James, and Dewey.

PHIL 3030: Existentialism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

A study of Existentialism and Phenomenology including their historical roots in the nineteenth century,

their major exponents of the late nineteenth and early twentieth centuries, and their impact on philosophy, literature, and other academic disciplines.

PHIL 3100: Ethics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of the major approaches to ethical thought and the applicability of these approaches to selected issues in the humanities, sciences, and professional areas including business, medicine, and education.

PHIL 3110: Social and Political Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a survey of the foundational figures and texts in the history of social and political philosophy, with focus on the concepts of freedom, obligation, authority, power, legitimacy, and social differences in the formulation of the purpose and foundation of political society.

PHIL 3120: Philosophies of Peace

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

Philosophies of Peace introduces students to the texts, figures, movements, theories, and practices in the study of peace from western and non-western perspectives. Figures may include Tolstoy, Gandhi, and Thoreau. Selected topics include just war theory, positive and negative peace, nonviolence, and art and peace.

PHIL 3130: Feminist Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of the main currents of feminist philosophy, including criticisms of traditional philosophical paradigms and new frameworks for approaching the diversity of human experience.

PHIL 3200: Asian Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a survey of the major texts, figures, and schools in the philosophies of India, China, and Japan. Texts include the Vedas, Upanishands, Analects, and Zhuangzi. Major figures include Shankara, Patanjali, Confucius, Mencius, Dogen, and Nishida.

PHIL 3210: Latin American and Caribbean Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is a survey of the central concepts, themes, and figures of Latin American and Caribbean philosophy. Some of these figures may include: Enrique Dussel, Lewis Gordon, Frantz Fanon, Sylvia Wynter, Maria Lugones, and Jose Marti.

PHIL 4000: Nineteenth Century Western Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a survey of post-Kantian thought in continental Europe and/or the Anglo-American world with focus on the concepts of critique, history, modernity, idealism, and the significance of the human sciences. Figures may include Mill, Hegel, and Marx.

PHIL 4010: Contemporary Western Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of major movements in twentieth century western philosophy, including positivism, pragmatism, phenomenology, philosophy of language, and post-modernism, and of the impact of these philosophical movements on other areas including the arts, sciences, and politics.

PHIL 4030: Phenomenology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course introduces students to a selection of major themes in phenomenology. Students reflect on the phenomenological method and critically examine the justifications phenomenologists give for their claims. The course also takes a comparative approach insofar as students will be encouraged to identify and explore parallels between different positions and practices (East and West) within a broadly speaking phenomenological framework.

PHIL 4200: Indian Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of important texts, schools, and figures of the Indian philosophical and cultural tradition. Texts include the Vedas, Upanishads, Bhagavad-Gita, and Yoga Sutras. Figures include Buddha, Mahavira, Patanjali, Sankara, Ramakrishna, Aurobindo, and Gandhi.

PHIL 4210: Chinese Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a study of the representative thinkers and schools in the Chinese philosophical and cultural tradition starting in the classical period. Important figures include Confucius, Zhuangzi, Mencius, Sunzi, and Huananzi.

PHIL 4220: Japanese Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is a survey of Japanese philosophical thought from ancient times to the present, including its cultural, religious, ethical, and aesthetic dimensions. While providing a broad overview of the development of Shinto, Confucianism, and Buddhism in the Japanese context, the course also examines the contributions of contemporary Japanese thinkers to world thought.

PHIL 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair prior to registration.

Special topics of an advanced nature not in the regular course offerings.

PHIL 4450: Major Figures in Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: At least two upper-division courses in philosophy or permission of the instructor.

An in-depth examination of a major figure in western or non-western philosophy from the ancient to contemporary periods. Figures may include Plato, Aristotle, Confucius, Patanjali, Dogen, Spinoza, Irigaray, Heidegger, and James. Course may be repeated if the course content is different.

PHIL 4460: Major Themes in Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: At least two upper-division courses in philosophy or permission of the instructor.

An in-depth examination of a major theme in the history of philosophy. Topics may include time, justice, love and friendship, beauty, materialism, aesthetics, epistemology, and metaphysics.

Notes: Course may be repeated if the course content is different.

PHIL 4490: Special Topics in Philosophy

1-3 Credit Hours

Prerequisite: ENGL 1102

A study of selected topics within philosophy.

PHIL 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Departmental Approval; PHIL 4450 or PHIL 4460, with "C" or better.

The course is a combined tutorial and seminar in which students research and write a senior thesis in addition to making a computer-based presentation in class.

Physics

PHYS 1111: Introductory Physics I

4 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1112, MATH 1113 or MATH 1190

This is an introductory algebra and trigonometry-based course on classical mechanics, thermodynamics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in kinematics and dynamics, use the law of universal gravitation to falling objects and orbital motion, describe simple harmonic motion, oscillations, and waves, and explain temperature, heat, and entropy.

PHYS 1111L: Introductory Physics Laboratory I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Corequisite: PHYS 1111

PHYS 1111L is an introductory laboratory for the trigonometry-based course on classical mechanics, thermodynamics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in the laboratory, and perform measurements of simple harmonic motion, oscillations, waves, temperature, and basic fluid dynamics. The analysis of sources of error and formal propagation of uncertainties will also be developed.

PHYS 1112: Introductory Physics II

4 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 1111, PHYS 2211, or PHYS 1211K, And a grade of "C" or better in MATH 1112, MATH 1113 or MATH 1190

This course is an introductory algebra and trigonometry-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric potential to problems in electrostatics and with electric currents, describe the motion of charged particles in magnetic fields and induction, explain the origin of electromagnetic waves and properties of light, and understand elementary principles of special relativity and quantum physics.

PHYS 1112L: Introductory Physics Laboratory II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Corequisite: PHYS 1112 (Pre-req may be taken concurrently)

PHYS 1112L is an introductory laboratory for the trigonometry-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric

currents to problems in the laboratory, and perform measurements on magnetic fields and induction, optics, and elementary quantum physics phenomena. The analysis of sources of error and formal propagation of uncertainties will also be developed, along with graphical techniques and least-squares fits.

PHYS 1211K: Principles of Physics I

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190.

An introductory course which will include material from mechanics, thermodynamics and waves. Elementary differential calculus will be used. This course has a laboratory component (included) that requires a lab kit. This course is equivalent to PHYS 2211 & PHYS 2211L.

Notes: E-Core Course - Online

PHYS 2211: Principles of Physics I

4 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in MATH 1190

This course is an introductory calculus-based course on classical mechanics, waves, and special relativity. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in kinematics and dynamics, use the law of universal gravitation to analyze the behavior of falling objects and objects in orbital motion, describe simple harmonic motion, oscillations, and waves, and explain the basic ideas of special relativity.

PHYS 2211L: Principles of Physics Laboratory I

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Corequisite: PHYS 2211

PHYS 2211L is an introductory laboratory for the calculus-based course on classical mechanics, and waves. The student will be able to apply Newton's laws and conservation of energy and momentum to various problems in the laboratory, and perform measurements of simple harmonic motion, oscillations, and waves. The analysis of sources of error and formal propagation of uncertainties will also be developed, as well as graphical techniques and the method of least-squares fits.

PHYS 2212: Principles of Physics II

4 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2202 and PHYS 2211 or PHYS 1211K

This course is an introductory calculus-based course on electromagnetism, physical optics, and quantum physics. The student will be able to apply the concepts of electric field and electric potential to problems in electrostatics and with electric currents, describe the motion of charged particles in magnetic fields and induction, explain the origin of electromagnetic waves and properties of light, determine the behavior of light waves passing through single or multiple slits, and understand elementary principles of quantum physics.

PHYS 2212L: Principles of Physics Laboratory II

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Corequisite: PHYS 2212

This is an introductory laboratory for the calculus-based course on electromagnetism, optics, and modern physics. The student will be able to apply the concepts of electric field and electric currents to problems in the laboratory, and perform measurements on magnetic fields and induction, optics, and elementary quantum physics phenomena. The analysis of sources of error and formal propagation of uncertainties will also be developed, along with graphical techniques and least-squares fits.

PHYS 2213: Principles of Physics III

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2202, and (PHYS 2211 or PHYS 1211K)

This is the third course in the 3-semester introductory sequence. Students will learn about pressures produced by fluids and fluid flow. They will also learn the laws of thermodynamics and their applications to physical systems. Students will also examine the behavior of light interacting with lenses and mirrors, and will understand the behavior of sound in air.

PHYS 3110: Directed Methods

0 Class Hours 3-9 Laboratory Hours 1-3 Credit Hours

Prerequisite: Grades of "C" or better in PHYS 2211 and PHYS 2211L and permission of instructor

This course will allow students to gain in-depth skills with a specific set of research methodologies through direct involvement in faculty-led research or scholarship. Course content and instructional methodologies will be identified by the faculty's needs and expectations.

PHYS 3210: Intermediate Mechanics

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2203, MATH 2306, and PHYS 2211 and PHYS 2211L

This course is a survey of Newtonian dynamics of particles and systems of particles, central force systems, and the theory of small vibrations. Students will learn how to apply different mathematical techniques such as Lagrange's equations, Hamiltonian Principles to solve these mechanical systems.

PHYS 3220: Electromagnetism I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in MATH 2203, MATH 2306, PHYS 2212 and PHYS 2212L

This course is a survey of fundamental principles of electricity and magnetism. Students will learn and solve problems in electrostatic fields, magnetic fields of steady currents, and time-dependent electromagnetic fields.

PHYS 3230: Optics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in PHYS 2212/2212L

PHYS 3230 will present fundamentals and applications of geometric and physical optics. Students will study electromagnetic waves as formulated by Maxwell's equations. The laws of refraction of reflection along with the theories of interference and diffraction will be presented. Students will also learn how some optical devices and lasers work.

PHYS 3260: Mathematical Physics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grade of 'C' or better in MATH 2202, and PHYS 2212

This course students will review mathematical techniques that are often used in upper-level physics courses. Students will learn to apply linear algebra, differential equations, vector calculus, Fourier series, Fourier transforms, Bessel functions, Legendre polynomials, and complex analysis to solve problems in physics.

PHYS 3340: Electronics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 1112 or PHYS 2212.

The primary objective of this course is to present the fundamental principles of analog and digital electronic circuitry and their application to modern technology. The course will develop basic circuits and their components, leading to the p-n junction and its use in diodes and transistors, with a particular emphasis on applications for signal processing, as well as the fundamentals of logic gates and flip-flops and their use in digital electronics.

PHYS 3410K: Electronics Laboratory

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Grades of "C" or better in PHYS 2212/2212L

Students will learn how to design, build, and analyze basic discrete and integrated circuits. They will also learn how to represent circuits and to predict the output of analog and digital circuits commonly found in physics laboratories.

PHYS 3500K: Introduction to Computational Physics

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in PHYS 2212/2212L

Students will use a Windows-based Mathcad software environment to perform numerical and symbolic manipulations of equations arising in physics. In addition, they will solve physics problems and analyze physical situations using a collection of problems particularly suited to software analysis.

PHYS 3710: Modern Physics

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: Grades of "C" or better in PHYS 2212/2212L

PHYS 3710 will present an introduction to the concepts and calculations involved in understanding the structure of matter and the world of the quantum. Students will explore the Planck theory of radiation and wave/particle duality. Students will also calculate Schrodinger equation solutions for simple potentials, and properties of the one-electron atom. Students will also study applications of quantum principles to atomic, molecular, and nuclear structure as time permits.

PHYS 3720L: Modern Physics Laboratory

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Concurrent: PHYS 3710

This course complements the material in Modern Physics. Students will gather data in x-ray diffraction, photoelectric effect and beta decay. They will also estimate the e/m ratio and study the spectra of hydrogen, helium and mercury.

PHYS 3730: Relativity

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 2212/2212L

PHYS 3730 is a thorough presentation of the principles of Special Relativity, and an introduction to the General Theory of Relativity. Students learn the underlying basis for the equations of relativity and also how to apply these equations to problem-solving. During this course, students will also learn specific mathematical methods that are particularly appropriate for this subject.

PHYS 4200: Mechanics II

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: Grade of 'C' or better in PHYS 3210

This is a survey of the theory of small vibrations and oscillations, dynamics of rigid bodies, and physics of fluid mechanics. Students will solve problems in nonlinear oscillations and coupled oscillations. Students will learn to apply the concepts of mechanics in to fluid mechanical problems.

PHYS 4210: Quantum Physics

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 3710, MATH 2203, and MATH 2306

This course presents a systematic development of quantum mechanical laws, emphasizing solutions to Schrodinger's equation for various potentials. In addition, the concept of spin will be presented.

PHYS 4220: Electromagnetism II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHYS 3220 and MATH 2306

This course completes the presentation of electromagnetic theory by building on the start contained in other courses. In this course students will learn about electric and magnetic fields in matter, they will study both the propagation and the generation of electromagnetic waves in space and time, and come to understand the connection between relativity and electromagnetic theory.

PHYS 4230: Thermal Physics

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 2213 and PHYS 2212/2212L

This course is a study of the principles of thermal equilibrium, physical statistics, irreversible processes, and the approach to equilibrium. Students will learn how to apply the statistical nature of thermodynamics using Boltzmann, Bose-Einstein, and Fermi-Dirac statistics.

PHYS 4240: Solid State Physics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 3710

In this course students will apply quantum mechanics to solid materials. Students will study the binding forces and bonding theory in solids along with the mechanical, thermal, and electrical properties of solids. If time permits, an application to solid-state devices will also be presented.

PHYS 4250: Quantum Theory of Two-State Systems

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in MATH 2202, and PHYS 2212/2212L

This course is a presentation of the ideas and principles of Quantum Mechanics that is focused on relatively simple systems that can be described with only two basis states. Students learn that the seemingly counter-intuitive predictions of Quantum Theory are not artifacts of the complex differential equations ordinarily used in its presentation. Students will also learn the Dirac notation, and the algebra of 2×2 complex matrices.

PHYS 4400: Directed Study

1-4 Credit Hours

Prerequisite: Approval of the instructor, major area committee and department chair.

Special topics of an advanced nature that are not in the regular course offerings.

PHYS 4410K: Advanced Physics Laboratory

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: A grade of "C" or better in PHYS 3410K and PHYS 3720L.

An introduction to instrument control, data acquisition, and data analysis of the type used in the

research labs. The student will then incorporate these techniques in the design of experiments important to classical and/or contemporary physics. This course will be writing intensive and will require extensive formal reports.

PHYS 4430: Capstone Physics Project

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Approved petition for graduation

Students will complete a capstone physics project during the last year on campus. The content and subject of this project will be negotiated between the student and the faculty supervisor of the project.

PHYS 4490: Special Topics in Physics

1-4 Credit Hours

Special topics selected by the department of interest to the Physics faculty and students.

Physic Education

PHED 3372: Physics Education Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Grades of "C" or better in (PHYS 2212 or PHYS 1112) and EDSM 2010

Students begin this course with a general investigation into various qualitative and quantitative research studies as well as key articles from physics education. Next, students will select a topic and conduct a literature review in that area. Finally, students will design, conduct and disseminate the results of a small scale study they conducted. The goal of this course is to help students learn how to conduct research in their own classroom to gauge instructional effectiveness.

PHED 3421: Classroom Interactions

2 Class Hours 1 Laboratory Hours 2 Credit Hours

Prerequisite: EDSM 1102 and PHYS 2212 and Admission to Teacher Education.

Corequisite: SCED 3010, ITEC 3300, INED 3305, INED 4435

This course examines teachers, students, content, and interactions that lead students to develop conceptual understandings of physics. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning. This course includes a 29 hour field experience as introduction to the adolescent learner, the equity imperative and science education reform. This course is restricted to participants in the UTeach program.

PHED 4422: Project-based Instruction

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SCED 2421, Preservice Certification and Admission to Year-long Clinical Experience

Corequisite: INED 3305 and INED 4435

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based physics lessons appropriate to secondary learners. Candidates will use

available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program. This course includes a 45-hour high school teaching experience.

PHED 4423: Pedagogical Content Knowledge for Physics

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: PHED 4422, PHED 4650, INED 3305, and INED 4435

Corequisite: PHED 4660, INED 3306, INED 4436

Teacher candidates will develop pedagogical content knowledge through the design and implementation of inquiry and project-based physics lessons appropriate to secondary learners. Candidates will use available student data and research-based literature and theory to help guide their lesson planning. Candidates will critically reflect upon their teaching practice, using videos, journals and discussions. This course is restricted to participants in the UTeach program.

PHED 4650: Yearlong Clinical Experience I

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: Pre-service Certification and Admission to Yearlong Clinical Experience.

Corequisite: PHED 4422, INED 3305 and INED 4435

This course is the first semester of an intensive and extensive coteaching yearlong clinical experience in physics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

PHED 4660: Yearlong Clinical Experience

0 Class Hours 24 Laboratory Hours 6 Credit Hours

Prerequisite: PHED 4422, and eligibility to GACE

Corequisite: PHED 4423, INED 3306 and INED 4436

This course is an intensive and extensive co-teaching clinical experience in physics education. Under the guidance of a collaborating teacher and university supervisor and working in a diverse environment that includes students with exceptionalities and English learners, candidates practice professional competencies that impact student achievement. This course includes regularly scheduled professional seminars. Proof of liability insurance is required.

Political Science and International Affairs

POLS 1101: American Government

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course examines the institutions and processes of American government and Georgia State

government. Global comparisons are made between the governments of the U.S. and other modern nation-states.

Notes: Offered as an online course.

POLS 2212: State and Local Government

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course is a general survey of state and local government; recent and current trends.

Notes: Offered as an online course.

POLS 2230: Careers in International Affairs

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Declared International Affairs major

This course focuses on academic and career planning and development issues for International Affairs majors.

POLS 2240: Introduction to Comparative Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

An introduction to the comparative approaches for the study of politics, focusing on patterns of development and change in contemporary political systems.

Notes: Offered as an online course.

POLS 2250: Introduction to International Relations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course provides an introduction to the study of international relations. Sources of international order, conflict and war, determinants of foreign policy, global actors and the dynamics of political interaction between nation-states are examined.

Notes: Offered as an online course.

POLS 2260: Current Political Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course exposes students to critical contemporary political and government related issues and provides some context and background. It ties the various issues to subfields of political science. Domestic-international linkage is emphasized.

POLS 2270: Political Ideologies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Emphasizes the political development and application of contemporary ideologies such as nationalism, capitalism, socialism, democracy, Marxism, conservatism, liberalism, feminism, communitarianism, fascism, liberation movements, and others.

POLS 2280: Research Methods

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101; MATH 0099 if required.

An introduction to the empirical methods in social science research. It provides the student with a working knowledge of the design, implementation and evaluation of social science research.

POLS 2401: Global Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of Learning Support or concurrent registration, if required.

Global Issues is an introductory survey course designed to introduce the students to numerous current issues confronting the globe's policy-makers and populations. Specifically, the course provides an opportunity for diversity in the students' educational program and provides information that fosters global understanding and engagement.

POLS 3300: U.S. Constitution and Courts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course provides an overview of American law. The course covers the basic design and structures of the United States court system, trial and appellate legal process, and Constitutional law basics including governmental powers and civil rights and liberties.

Notes: Offered as an online course.

POLS 3310: Foundations of Public Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 or permission of instructor.

This course serves as a general survey of public policy, beginning with efforts to define public policy through the most modern efforts to explain how public policy is made. Key themes include a comparative look at the development of public policy in democracies, including the stages of policymaking, punctuated equilibrium, issue networks, institutionalism, symbolism, and theories designed to explain the link between policy alternatives and the problems they are designed to solve.

POLS 3313: Public Policy Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Introduction to public policy analysis using data and methodological approaches as well as political and social inputs into the policy process. Analysis of policy outcomes.

Notes: Offered as an online course.

POLS 3315: American Constitutional Law: Federalism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 and POLS 3300.

The constitutional powers and limitations of national legislative, executive and judicial branches are examined. The course includes analyses of the constitutional relationship of these political institutions to each other and to the states.

POLS 3320: Legal Research

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

An introduction to legal resources for law-related courses and to problems that demonstrate the effective utilization of legal research and reference tools in a manner designed to meet the needs of the student in both law and non-law fields. An understanding of legal rules is necessary for scientists, archaeologists and other professionals.

POLS 3328: African American Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course is an intensive introduction to ideologies, theories, and empirical research on the role of African Americans in the American political process. The course emphasizes black voting behavior, elite policymaking, public opinion, and the relationship of black information networks with mainstream media.

POLS 3340: Legal Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 3300.

This course involves students in the processes of reasoning objectively and arguing persuasively within a socio-legal framework. Set against a background of formal and informal logic that guides reasoning in general, the course is primarily concerned with the reasoning underlying the construction of legal arguments from judicial, legislative, and scholarly points of view. Theoretical analysis is illustrated by investigating and writing about the law, with an emphasis on topics related to crime.

POLS 3343: Principles of Public Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

The methods and procedures of governmental administration and the control of public bureaucracies in democratic societies.

Notes: Offered as an online course.

POLS 3350: American Foreign Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course explores the conduct, substantive policy issues and problems associated with American foreign policy. The contemporary aspects and problems evolving out of and confronted by America's foreign policy are emphasized.

Notes: Offered as an online course.

POLS 3356: U.S. Environmental Policy & Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Explores U.S. environmental policy and politics from the implicit early efforts (conservationist and preservationist) to the explicit policy that emerged out of postwar environmental movements and culminated in the 1970 with the creation of the US Environmental Protection Agency. Emphasis is on the politics of making and implementing of environmental policy and on the effectiveness of environmental protection.

POLS 3360: The United States Congress

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Presents an in-depth treatment of the origins, development, operation of the U.S. Senate and House of Representatives.

POLS 3370: The United States Presidency

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Examines the historical development of the presidency, the constitutional powers, the personalities, the roles and the relationship with other governmental entities.

Notes: Offered as an online course.

POLS 3380: Mass Media and Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Examines the role of the mass media in society. Emphasis is placed on the media's role in the social, legal and political processes in the United States, as well as other democratic and nondemocratic countries.

Notes: Offered as an online course.

POLS 3385: Campaigns and Elections

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

An in-depth look at the process of selecting governmental leaders in the United States. Includes a segment on foreign elections.

POLS 3388: Lobbying and Interest Groups

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course familiarizes students with public sector lobbying and the role of interest groups in a democratic society. The processes, procedures, and techniques of lobbying government entities will be examined in depth, as well as the issue concerns and persuasion strategies of interest groups. The course will focus on applied learning, and will help prepare students for employment in professional political environments.

POLS 3390: Political Research On-Line

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course will help students become familiar with and adept at using on-line resources to perform political and governmental research. Students will be coached on using Internet tools and processes to improve their ability to find and use political and governmental information. Students will be assessed on their proficiency in on-line political research.

POLS 3394: Public Polling and Survey Techniques

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course introduces students to the techniques and uses of polls and surveys in political science and public policy. Students will learn the art of questionnaire design, questionnaire construction, sampling, data collection, coding, and analysis. Students will learn the basics of telephone survey techniques and focus group moderation for the purposes of collecting information. Class projects may include the construction and implementation of a survey, reading and critiquing existing surveys and questionnaires. Quantitative and qualitative approaches will be examined.

POLS 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: POLS 1101; approval of the department chair and coordinator of cooperative education/internship (Career Services).

A supervised work experience program in business, industry or government. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

POLS 3398: Internship

1-12 Credit Hours

Prerequisite: POLS 1101; approval of department chair and department internship coordinator.

A supervised, credit-earning work experience with a previously approved business firm, private agency or government agency. Students must make application with the Internship Coordinator before the end of the semester prior to the semester in which the internship is planned.

POLS 4000: Practicum in Political Science and International Affairs

1-9 Credit Hours

Prerequisite: POLS 1101; 60 hours and permission of the instructor and department chair/program director.

A pre-approved service and/or experiential activity that occurs domestically or internationally and links meaningful community service or cultural immersion with academic learning, personal growth, and civic or global responsibility. The activity may be part of a preexisting volunteer program, NGO project, or international exchange or it may be individually designed with the instructor and approved by the chair. Students will be expected to keep a reflective journal and prepare a presentation that demonstrates learning objectives.

POLS 4100: Directed Applied Research

1-3 Credit Hours

Prerequisite: Consent of the instructor and department chair, and POLS 2280 or ACCT 2100 or ECON 2300.

This course will offer students an opportunity to investigate political science-oriented concepts and issues by participating in faculty-supervised research or scholarship. Course content and instructional methodologies will be determined by the student and faculty member. The amount of work expected per student will be based on the number of assigned credit hours.

POLS 4200: Homeland Security Administration

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course examines the anatomy and response cycle of emergencies as they are managed by the Department of Homeland Security and the Federal Emergency Management Agency (FEMA). A study

of pertinent laws, executive orders, and preparedness and response activities at the national, state, and local levels enables each student to understand the nature of crisis management, appropriate responses, and the resulting impact on society.

POLS 420I: International Relations in the Americas

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 240I

This course examines the relations among the countries of the Americas. It will explore the development of relations in the context of United States regional hegemony. The course will also examine current issues relevant to the region such as trade, drug trafficking, and migration.

POLS 4280: Advanced Research Methods and Data Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in POLS 2280.

This course teaches students advanced techniques in political and social research methods. The course covers both qualitative and quantitative methods, including hands-on training in computer-based analysis of large datasets and social science statistical methods.

POLS 4400: Directed Study

1-3 Credit Hours

Prerequisite: POLS 110I; approval of instructor, advisor and department chair prior to registration.

Covers special topics and seminars external to regular course offerings.

POLS 4402: Political Parties

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 110I.

Examines the nature, structure and functions of political parties in differing national cultural contexts with particular attention to the electoral activity of political parties in the United States.

POLS 4405: Comparative Legal Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 110I and POLS 3300.

An examination of the ways in which the courts and the law in different countries affect public policy. The source and methods utilized in different legal systems (both democratic and nondemocratic) as transforming agents of society and/or means for maintaining order within it are explored.

POLS 4410: American Legal System

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 110I and POLS 3300.

POLS 4410 is designed to be a capstone to the political science legal studies concentration. Potential

topics include the structure and function of the U.S. legal system, as well as criminal justice and alternative dispute resolution, judicial behavior, and the connection between law and society.

POLS 4411: Criminal Law

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 and POLS 3300.

An examination of those areas in which the U.S. Constitution affects criminal justice. Emphasis on understanding the role of the Supreme Court of the United States in interpreting provisions of the Constitution that affect criminal justice. An attempt to understand the content of important decisions in this area as well as the reason given by the Court for decisions.

POLS 4412: Urban Affairs and Problems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Emphasis on the changing patterns of local and municipal governments and politics, impact of reapportionment and other problems generated by an urbanized society.

POLS 4415: Civil Liberties

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 and POLS 3300.

An intensive study of the rights of Americans as guaranteed by the Constitution. The changing character of civil liberties problems in the United States will be stressed with attention given to the legal, historical and political context of the cases studied.

POLS 4416: Law and Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 and POLS 3300.

POLS 4416 examines the relationship between law and gender in the United States, from the New Deal Era to the present day. Topics include how gender impacts the legal regulation of employment, education, reproduction, family life, and constitutional rights. Additionally, the course examines how women participate in the legal system as attorneys, judges, and mediators.

POLS 4420: Judicial Process

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 and POLS 3300.

Courts and judges as agents in the political system; focus is on the judicial decision-making process, with attention to psychological and other variables in that process. Relation of judicial process to legislative, administrative and electoral processes emphasized.

POLS 4423: Great Political Thinkers

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

A survey of classical, medieval, and modern political thinkers and their political thoughts. It discusses their impacts on the development of political processes and institutions.

POLS 4427: American Political Thought

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course explores the diverse spectrum of American political thinking from the pre-revolutionary period to the present. Beginning with colonial discourse, this comprehensive review captures the depth and distinctiveness of American thought as expressed by and through the writings and actions of philosophers, politicians, radicals, and revolutionaries.

POLS 4428: Race, Gender, and the Politics of Difference

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course examines contemporary theories and politics of "difference," broadly understood as institutionalized hierarchies which marginalize and oppress certain groups and inhibit their political power. Students use race, gender, sexuality, and class as intersecting analytical frameworks to understand how multiple hierarchies of difference are structured and reproduced in the political process. Using critical race, feminist, queer, and political theory, students explore how political dynamics are shaped by difference.

POLS 4429: Legal Theory & Philosophy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course examines different theories of jurisprudence and great thinkers of law. Students will learn about legal procedures, the stages of a trial, the appeals process. Students will also analyze core legal concepts such as habeas corpus, judicial power, judicial review, originalism, stare decisis, positivism, consequentialism, strict construction, judicial activism, judicial nominalism, and judicial restraint.

POLS 4430: International Law and Organization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 2250.

This course examines the system of law governing relations between nation-states, and the roles and functions of international organizations. It explores the conventional international law in the areas of diplomacy, territorial questions and armed conflicts, as well as the developing regimes in trade and human rights. In addition, the course examines the structures and functions of some contemporary organizations in the security and economic areas and evaluates their performance and contribution.

Notes: Offered as an online course.

POLS 443 I: Politics of International Terrorism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

A study of the history and tactics of modern terrorism as well as efforts by modern government to counteract them.

POLS 4433: European Union Politics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course explores the politics and policy-making processes of the European Union (EU). It is divided into three parts. The first part addresses the history of European integration and the major theories utilized to explain its origins, evolution and operation. The second part of the course examines the structures and processes that constitute the machinery of EU policymaking. The third part of the course examines the politics of policy-making in an array of issue areas, including the single market, the Euro, and external trade policy. We also examine various noneconomic policy areas such as foreign and security policy.

POLS 4435: Comparative Foreign Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

A study of governmental formulation and conduct of foreign policy, focusing on major foreign policy issues that dominate the contemporary world.

POLS 4436: Politics of Developing Areas

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 2240 or POLS 2250.

This course confronts the patterns of development of governmental institutions and use of political processes in meeting the problems of the emerging nations of Asia, Africa, Latin America and the Middle East.

Notes: Offered as an online course.

POLS 4437: Global Security

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 2250.

This course explores the primary threats to international security in the 21st century and examines the response of national governments, the United Nations, and regional international organizations in meeting the challenges posed by those threats.

POLS 4438: International Political Economy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 2250 and ECON 2200

In International Political Economy students learn about the political influences that shape the global economic system. Particular attention is devoted to the international organizations and trade agreements which shape the behavior of countries, corporations, and other participants in the global economy. Students also gain insights into the political and social consequences of the various economic approaches, and of the impacts of the global exchange of goods and financial assets on societies.

POLS 4439: Political Economy of Russia and Central Asia in Transition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101

This course examines the political and economic processes of reform in a variety of post-communist societies, including Russia, Kazakhstan, Ukraine, and Mongolia. A significant portion of the course involves a discussion of the impediments to development in either domain, as well as the significant barriers to economic competition in the world marketplace.

POLS 4444: Administrative Practices and Organization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Problems of personnel, finance, administrative law, and the growth and significance of administrative legislation and adjudication.

POLS 4446: Governmental Budgeting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course is designed to introduce undergraduate students to the role of budgeting in the governmental process. Budgetary actors, their motivations, their stakes and their behaviors are investigated. Students examine the legislative process of the budget and budgetary implementation. Students are introduced to cutback management, funding mandates and other current issues in governmental budgeting.

POLS 4448: Russian Politics and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101

This course examines the unique political traditions and governing institutions of Russia by examining the pre-communist, communist, and post-communist periods.

POLS 4449: Russian Foreign Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101

This course examines the international relations of Eurasian states, with particular reference to the Russian Federation's position in the global security, political, and economic realms, past and present. It covers both intra-Eurasian relations, as well as Russia's relations with the outside world. The course focuses upon major foreign policy issues that resonate within the region and beyond.

POLS 4450: Canada & North America

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101 or permission of the instructor.

This course focuses on the commonalities and differences in the political systems and public policies of Canada and the United States, with emphasis on Canada. Issues such as political culture and value systems, electoral politics, federalism and regionalism including the status of Quebec, public opinion, NAFTA, health care, immigration, political integration, the treatment of indigenous peoples, ethnic and gender representation are explored.

POLS 4451: Politics and Government in Post-Communist Europe

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course explains the collapse of communist rule in the former Soviet Union and in Eastern Europe. It introduces the contemporary political institutions and processes of Russia, Ukraine, Belarus, Poland, Hungary, the Czech Republic and other key countries of the region. The course uses a comparative approach and develops country profiles to assess the varied degrees of success in achieving stable multiparty democracy. It examines the widely divergent strategies for meeting the severe economic, environmental, social and political challenges confronting these countries during this difficult and volatile transitional era.

POLS 4452: Politics of the Pacific Rim

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

The course is designed to acquaint students with political institutions and processes of China, Japan and Korea. Particular emphasis will be placed on analysis of the relations of these countries with the United States on selected issues of contemporary relevance.

POLS 4453: Latin America: Democracy and Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

Examines contemporary socio-political and economic characteristics as well as political institutions needed to understand the countries of Latin America. Two important themes (democracy building and development) will form the central focus of this course. Driving forces which facilitate and/or hinder the

Latin American quest for political stability and economic development will also be examined. These include political parties, labor and peasant movements, economic elites, religious organizations and the military. The role and influence of the United States on Latin American politics will also be examined.

POLS 4454: Politics of the Middle East

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course examines contemporary socio-political and economic characteristics needed to understand the many countries of the Middle East/North Africa. The role of Islam, the Gulf war, the quest for development, the Palestine issue, and democracy versus authoritarianism are themes which will be covered in the course. In addition, a "country profile" approach will also be used. This course examines key countries and studies their political structures in detail.

POLS 4455: International Relations of Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

This course examines the international relations of African states within a conceptual context, with particular reference to Africa's position in the global political economy. It covers both intra-African relations and African relations with the outside world. The main purpose is an attempt to understand African external politics in order to deal with them, by analyzing past practices and projecting new trends.

POLS 4456: International Environmental Policy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

An examination of the basic elements of environmental policy making in the international arena. The course highlights current issues such as tropical rain forests, the "Global Commons" concept, biodiversity and endangered species. Policy approaches will draw upon examples from specific countries as well as policy developed within international organizations such as the United Nations.

Notes: Offered as an online course.

POLS 4457: South Asian Politics: A Comparative Perspective

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 2240.

This course is an overview of the main issues that overlay politics in Sri Lanka, Bangladesh, India, and Pakistan. It covers the common historical background and the development of political institutions across the region. The course highlights the main cleavages along which politics are organized and related political, social, and economic outcomes, including the political party system, economic development, social movements, and ethnic conflict.

POLS 4465: Mock Trial

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: POLS 1101.

An examination of the American trial process. The overall purpose of the course is to enhance knowledge of the American adversarial process. Students who take the course may qualify for selection to teams for state, regional and national competition. Course may be taken three times for credit with permission of the instructor.

POLS 4466: Trial Procedure and Evidence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

POLS 4466 enhances students' knowledge of the adversary process. Students learn and apply the basics of trial procedure and evidence through an in-depth trial simulation. Students who complete this course are eligible to compete on KSU's intercollegiate mock trial team.

POLS 4470: Alternative Dispute Resolution

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101.

A survey of the theory and methods of alternative dispute resolution and conflict management, with simulation in facilitation, mediation and negotiation. Basic skills will be taught.

POLS 4480: Practicum in Alternative Dispute Resolution

2 Class Hours 2 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 4470; permission of the program coordinator.

A capstone course designed to meet the Alternative Dispute Resolution Certificate Program by integrating the students' prior training in alternative dispute resolution in on-site applied settings and in on-campus seminars. Students will be given applied experiences in selected public or private organizations in the community or in campus-related programs to make use of their ADR training.

POLS 4490: Special Topics in Political Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: POLS 1101; approval of the instructor and department chair.

Selected special topics of interest to faculty and students.

Notes: Offered as an online course.

POLS 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Satisfactory completion of 18 hours of upper-division major and/or concentration-related requirements; at least 9 hours of which must be political science courses meeting the upper-division major requirement.

This capstone course is designed to complete the major by integrating the problems, research and theories from the divergent specialty areas of the Political Science curriculum. The course will focus on both the theoretical and empirical concerns, as well as the interconnectedness among the various Political Science specialty areas.

Notes: Offered as an online course.

Portuguese

PORT 100I: Introduction to Portuguese Language and Lusophone Cultures I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 0099 or READ 0099, if required.

This course introduces students to Portuguese Language and Lusophone cultures, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Lusophone cultures. Not open to native speakers of Portuguese.

PORT 1002: Introduction to Portuguese Language and Lusophone Cultures II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Portuguese or PORT 100I or the equivalent.

This course is an introduction to Portuguese language and Lusophone cultures, "Part II," stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Lusophone cultures. Not open to native speakers of Portuguese.

PORT 200I: Intermediate Portuguese Language and Lusophone Cultures I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Portuguese or PORT 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways. Not open to native speakers of Portuguese.

PORT 2002: Intermediate Portuguese Language and Lusophone Cultures II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Portuguese or PORT 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Not open to native speakers of Portuguese.

PORT 3200: Advanced Reading and Writing in Portuguese

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PORT 2002 or permission of the instructor.

This course emphasizes skill development and refinement in the areas of critical reading and writing in Portuguese. It is designed to give students extensive experience in reading and writing in Portuguese and on Lusophone Linguistic and Cultural issues.

PORT 3302: Conversation in Portuguese

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PORT 2002 or permission of the instructor.

This course emphasizes skill development and refinement in the areas of critical thinking through discussion in Portuguese. It is designed to give students experience in conversation in Portuguese and on Lusophone Linguistic and Cultural issues.

PORT 3304: Introduction to Lusophone Literatures and Cultures

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PORT 3200 or permission of the instructor.

This course introduces literary and cultural texts to the Advanced-level student in Portuguese. It is designed to give students extensive experience in reading and writing in Portuguese and on Lusophone Linguistics and Cultural issues as they appear in literature of the Lusophone world.

Psychology

PSYC 1101: Introduction to General Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is an introduction to the theoretical and scientific study of behavior that emphasizes historical and current theories, methods, and research findings related to the influences of biological, cognitive, and social factors on behavior.

PSYC 2000: The Science of Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course provides a survey of the skills needed to read, understand, and evaluate various claims related to the prediction and shaping of behavior. Topics include key components of scientific methodology; systematic comparison, contrast, and evaluation of sources of information about psychology; the roles of the American Psychological Association and Association for Psychological Science in research; techniques for exploring psychological topics; and application of research findings. Emphasis is placed on becoming critical consumers of research.

PSYC 2210: Careers in Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101; Declared Psychology major

This course focuses on career planning and development issues for psychology majors. Using a combination of lecture, readings, and exercises, students will be exposed to information designed to assist in the clarification, selection, and pursuit of a career in psychology or a related field. Topics will include an overview of the undergraduate major in psychology, career options in psychology and related fields, preparation for employment with a bachelor's degree, preparing for and succeeding in graduate school, and applying for a job or to a graduate school.

PSYC 2258: Psychology of Adjustment

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of all Learning Support English requirements

The dynamics of normal and maladaptive adjustment, including the study of appropriate and inappropriate reactions to frustration and stress; resolution of conflicts, fears and anxiety; building emotional stability and preventing mental illness.

PSYC 2300: Research Methods and Statistics

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 2210 (may be taken concurrently), ENGL 1101, and (MATH 1101, MATH 1111, MATH 1112, or MATH 1113)

In this course, students are introduced to methods and statistics used in psychological research. Emphasis is placed on non-experimental methodologies such as observation, correlational research, surveys, archival research, and quasi-experimental and ex post facto designs. Topics include an introduction to the scientific method, an overview of experimental design, measurement and error, experimental control, descriptive statistics, statistical inference, scientific writing, and ethical issues in research. Laboratory work is designed to enable students to apply course topics.

PSYC 3010: Educational Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course is designed to examine the application of psychological concepts, principles, theories, and methodologies related to issues of teaching and learning in the school setting. This course also examines how individuals develop and learn, with particular emphasis upon the classroom environment, including motivation, student interests, creating a healthy learning climate, language development, testing, and individual differences.

PSYC 3040: Motivation and Emotion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course examines motivation and emotion that underlie thought and behavior from a variety of perspectives. The course explores biological/physiological, cognitive, developmental, evolutionary, and social approaches to motivation and emotion. In addition, we examine the historical background of motivation and emotion research, as well as a number of current applied motivational approaches.

PSYC 3205: Psychology of Child Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

In this course students examine the developmental time period from conception through early adolescence with a major focus on ages 36 months to 15 years. The course covers the biological, emotional, social, language, and motor changes children experience as they develop. Using contemporary theory, research, and methods relevant to developmental psychology, the class emphasizes individual differences, the influence and importance of the environment and relationships for healthy development, and the sociocultural context of development.

PSYC 3270: Engineering Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course provides a survey of the applied areas of psychology, which has proven useful in the design of equipment for human use and in the design of man-machine systems. This course is offered at a beginning level and is conducted as a lecture course. The content is basically psychological, but the emphasis is on how psychological knowledge can be applied in the design or organization of machines, equipment or systems intended for human use.

PSYC 3273: Forensic Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course provides the student with an overview of the theories that support the utilization of psychology in the legal system and how those theories and psychological research are applied in law

enforcement, the courts, and in corrections. Although the focus in the course is primarily on the United States, some attention is devoted to an international view of forensic psychology.

PSYC 3301: Experimental Design and Analysis

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 2210, and PSYC 2300

In this course, students examine experimental designs used in psychological research. Topics include the selection of appropriate experimental designs for different research questions, hypothesis testing, independent-groups and within-subjects designs, complex designs, data collection strategies, statistical analysis using t-tests and analysis of variance, the interpretation of results, and the writing of research reports. Laboratory work is designed to enable students to apply course topics.

PSYC 3305: Life-Span Developmental Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

Human development from conception to death, emphasizing biological, cognitive, emotional, social and personality development. Scientific approaches for studying developmental psychology will stress the importance of research methodology and research findings across the life-span. Theories of development and applications to real-world problems will provide a context for understanding how humans change during the life-cycle.

PSYC 3310: Psychopharmacology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course

This course addresses how psychoactive drugs work in the central nervous system to affect behavior. Stimulants, depressants, hallucinogens, analgesics and psychotropic drugs will be discussed primarily in terms of their pharmacological action in the brain. Substance abuse and treatment disorders will be addressed from a biological perspective.

PSYC 3315: Psychology of Infant Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course examines the developmental time period from conception up to 36 months. The course covers the biological, emotional, social, language, and motor changes infants progress through during the first three years of life. Using contemporary theory, research, and methods relevant to developmental psychology, the class emphasizes the uniqueness of each infant and toddler, the influence and importance of environment and relationships for healthy development, and the sociocultural context of development.

PSYC 3320: Leadership and Group Dynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

Theory and application of psychological knowledge regarding group formation, group process, and leadership. Issues are examined in the context of ongoing intensive group discussion. Experiential activities will be included in the course to provide students with opportunities to apply and observe the group process.

PSYC 3325: Social Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 2300

This course examines how people's thoughts, feelings, and behaviors are shaped by the social environment. Topics include interpersonal attraction, affiliation, aggression, prejudice, conformity, attitudes, persuasion, social cognition, altruism, self-presentation, social perception, and group behavior. Experimental research findings are emphasized.

PSYC 3335: Theories of Personality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 2300

This course surveys classic and current theories of personality that represent several of the major perspectives in psychology (e.g., psychoanalytic, biological, developmental, behavioral, humanistic, cognitive, sociocultural), highlighting the contributions of each theory to personality description, assessment, research, therapy, and application.

PSYC 3340: The Psychology of Family Interaction: A Developmental Perspective

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

An in-depth coverage of the psychological dynamics involved in parent/child relationships. A developmental approach will be employed to explore the changing needs and demands of the child and the parents as each progress in their own development. Current research and theory concerning parenting techniques, the psychological atmosphere of the home and the interaction of the child's temperament with the parents will be discussed. Contemporary family issues such as daycare, domestic violence, single parenting and children with special needs will be presented.

PSYC 3355: Cross-Cultural Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

An overview of the study and application of psychological principles from a global cultural perspective, including Asian, African, European and North and South American cultures. Topics such as cognition, attitude structure and change, interpersonal communication, personality and mental health will be

discussed in the contexts of different cultural orientations in the world, and both between and within-group differences and similarities will be discussed.

PSYC 3365: Human Sexuality

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

An examination of the biological, personal, interpersonal and social aspects of human sexual behavior. Topics include: sexual values, sex and gender, sex and love, sexual behavior over the life span, reproduction, sex and health, sexual dysfunction and treatment, and social problems/issues related to sexual behavior.

PSYC 3370: Industrial-Organizational Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

The application of research and psychological principles to human behavior in the workplace. Course topics will include the psychological aspects of employment selection and assessment, performance appraisal, employee and work team development, reorganization and downsizing, work stress, employee violence, work/family conflict, and the changing nature of the workplace.

PSYC 3375: Psychology of Career Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

The application of research and psychological principles with respect to how people formulate and make career decisions. The course explores career development across the life-span, focusing on theories of career decision making, work adjustment, adult career crises and transitions, and career counseling interview and assessment techniques.

PSYC 3380: Principles of Psychological Testing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 2300

Designed to introduce the principles that underlie the development, use and interpretation of psychological assessment tools. Topics include: test construction, survey development, scaling, norming, assessment interpretation issues and psychological assessment applications in industrial, vocational, clinical and research settings. Additionally, psychological assessment will be discussed in terms of social, legal and ethical concerns.

PSYC 3385: Ethnic Minority Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course will provide an overview of the study and application of ethnic minority psychology. We will examine concepts and issues that pertain to ethnic minority groups in the United States, particularly the following four groups: African Americans, Asian Americans, Hispanic Americans, and Native Americans.

Topics for discussions are: multicultural theory and research, history, cultural values, identity, developmental and family issues, mental health and other relevant issues that are pertinent to the experiences of the above-mentioned four ethnic minority groups in the United States. The course will be conducted with a combination of lectures, class discussion, guest speakers, group activities, student presentations, videos, etc.

PSYC 3395: Psychology of Prejudice and Privilege

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course focuses on psychological theory and research as mechanisms of understanding prejudice and discrimination. Close attention is paid to how privilege (e.g., racial, gender, sexuality, and/or class privilege) can influence how we perceive ourselves and others within and outside our social/cultural group(s). Coursework may involve readings from both psychology and literature, viewing of relevant films, and participation in experiential learning exercises and dialogues.

PSYC 3398: Internship in Psychology

variable 1-6 Credit Hours

Prerequisite: PSYC 3301, declared major in psychology, permission of the instructor, and any two additional PSYC 3000 level courses

The Internship in Psychology course is a structured off-campus experience in a supervised setting that is chosen in relation to the student's major and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students meet with the internship coordinator to develop an appropriate plan that will lead to the writing of a research-oriented paper or research project, a required part of the internship.

PSYC 3401: Psychology of Diversity

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

In this course, students review current theories and research on the psychology of diversity. Students explore psychological principles and research as they relate to human behavior and examine how people perceive and interact with others who have different backgrounds, values, cultures, experiences and ideas. The class emphasizes the dynamics of diversity in society.

PSYC 3410: Health Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

Through the use of theoretical and empirical approaches, this course focuses on a biopsychological approach to health psychology including psychological and physiological aspects of U.S. and global health issues. Students will develop knowledge of the psychological aspects of a variety of health topics. Potential topics include body management systems, disease prevention, chronic illnesses, pain, stress and coping, substance abuse, nutrition, and alternative models of health behavior change.

PSYC 3425: Psychology of Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101 or GWST 3000

This course examines gender issues from a psychological perspective. Topics include the social construction of gender, gender and personality development, sex role socialization, and a critical examination of the research on gender differences. The ways in which gender intersects with other aspects of identity (e.g., race, ethnicity, class, sexual orientation) are examined. Scientific research findings are emphasized.

Notes: Offered as an online course.

PSYC 3505: The Psychology of the Emerging Adult: Late Adolescence through Early Adulthood

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course focuses on development from late adolescence through early adulthood and the unique physiological, cognitive, and psychosocial issues occurring during this transitional period that are not well explained by traditional conceptualizations of standard development periods. Familiarity with the major physical transitions associated with pubescence, the cognitive changes necessary for the abstract reasoning associated with this time period, and the increased complexities inherent in the social experience typical of this age group.

PSYC 3510: Psychoneuroimmunology: Mind Body Pathways

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course or permission of the instructor

This course takes a novel approach to the interdisciplinary field of psychoneuroimmunology (PNI) by exploring research and providing practical applications that illustrate how stress over time may impact psychological and physical well-being. Students will be exposed to current PNI literature, experientially explore effects of stress and coping strategies, and participate in a PNI laboratory assignment. Topics will include, but are not limited to: Mind-Body Pathways; Stress and Illness; Metabolism, Growth, and Stress; Sleep and Stress; Coping and Stress Management.

PSYC 3775: The Psychology of Religion: An Empirical Approach

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (PSYC 1101 or SOCI 1101) and any PSYC 3000 level course

This course focuses on the study of the influence of religion and spirituality on human behavior. Empirical findings are presented and discussed that allow for the critical evaluation of the role of religion and spirituality in understanding human motivation, cognition, behavior, and individual differences in personality. Students will examine findings on contemporary psychobiological thinking and religion; varieties of religious experience; religion/spirituality in childhood; and the role of religion in morality, psychopathology, and coping.

PSYC 4000: International Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course examines mainstream as well as alternative theoretical, methodological, and applied approaches that are relevant to the study and practice of international psychology. The topics discussed emphasize psychology's relevance to the understanding and solution of global problems, as well as how psychology itself is affected by events and cultures around the world.

PSYC 4130: Psychology of Aging

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101

This course provides both a general introduction to the multi-disciplinary field of gerontology and a specific emphasis on those aspects of aging behavior that are of particular interest to psychologists, namely, learning and memory, intellectual behaviors, attitudes, personality, psychopathology, perception, and clinical intervention. The primary purpose of the course is to provide a theoretical and empirical basis for understanding the aging process. Aging from a multicultural perspective is considered.

PSYC 4345: Learning and Behavior

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 3301

This course offers an introduction to the various learning mechanisms that influence the establishment, maintenance, and/or reduction of behaviors in both humans and nonhuman animals. The course focuses on linking processes and theories of classical and operant conditioning to everyday behaviors.

PSYC 4400: Directed Study in Psychology

1-3 Credit Hours

Prerequisite: PSYC 2300, and approval of the instructor and department chair

This course is offered to students interested in investigating special topics and seminars external to regular course offerings. May include original research projects. A maximum of 6 hours of PSYC 4400 may be used towards satisfying the upper division major requirements. A maximum of 9 hours of PSYC 4400 is permitted overall.

PSYC 4410: Physiological Psychology

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 2300

This course addresses the relationship between our underlying physiological systems and behavior. The topics investigated include neural communication, the anatomy of the nervous system, and the biological bases of sleep, reproductive behavior, stress, learning and memory, and mental disorders.

PSYC 4415: Perception

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 2300

The subject matter of the course includes the physical properties of stimuli, the psychological methods of investigating perception, the anatomy and physiology of the sense organs, the central processing of stimuli, and demonstrations or laboratory investigations of sensory phenomena.

PSYC 4420: Ethics and Professional Issues in Applied Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course

A critical analysis of professional issues and the ethical standards in the practice of psychology. Traditional and emerging practice areas will be discussed. Topics such as licensure, prescription drug privileges, managed care, and treatment efficacy research will be explored. Ethical standards and decision-making will be studied in the context of professional practice.

PSYC 4430: Abnormal Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course

This course provides an overview of the major categories of mental disorders, including current research on their classification, features, etiology, course, and treatment. Students also examine diagnostic processes and ethics as related to research and treatment with clinical populations.

PSYC 4440: Clinical and Counseling Psychology: Science and Practice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course

The course provides an introduction to the science and practice of clinical and counseling psychology from integrated perspectives. History, major theories, and scientific underpinnings are covered, as well as current developments in practice and research. Major topics include research design, theoretical models, diagnostic and assessment methods, psychotherapeutic interventions, treatment effectiveness, specialization, and training. The course may emphasize clinical or counseling psychology at the discretion of the instructor.

PSYC 4445: History and Systems of Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 3301 and one course from each of the five psychology course areas (any one of the five psychology course areas can be completed concurrently with PSYC 4445).

This capstone course is designed to complete the major by integrating the student's prior academic experiences in psychology. The historical development of psychology is examined, focusing on antecedents in philosophy and physiology, major early systems, major historical figures, and the historical/cultural context in which the field developed. A seminar format is used throughout the course

to encourage student participation and interaction with peers and with faculty.

PSYC 4455: Cognitive Psychology

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: PSYC 2300, and PSYC 3301

An examination of the experimental investigation of complex cognitive processes, including the storage and retrieval of information, concept formation, reasoning, problem-solving and decision making.

PSYC 4460: Child Psychopathology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 1101 and Completion of one of the following Developmental Area courses: PSYC 3305, PSYC 4130, PSYC 3405, PSYC 3205, or PSYC 3315

This course is an advanced level course focusing on the etiology, classification, assessment, and treatment of a select group of child and adolescent psychological disorders that are most frequently encountered by professionals in mental health and educational settings. The primary task of the child clinician is to identify and treat those children who suffer from emotional and/or behavioral problems that significantly interfere with their development and functioning.

PSYC 4475: Psychology of Workplace Motivation and Leadership

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One 3000-level psychology course

This course examines topics of motivation and leadership in the workplace by addressing theoretical formulations, major research findings and real-world applications. Issues related to these topics will include gender, corporate culture, job attitudes, cross-cultural influences and organizational reward systems.

PSYC 4480: Field Practicum in Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 3301, a GPA of at least 3.0 overall and in psychology, completion of two placement-related courses, submission of an application before registration, approval of department faculty, and permission of the instructor

The psychology field practicum offers the advanced psychology major an opportunity to combine appropriate supervised field experience with classroom discussion of site-specific and general issues related to the application of psychological theory and research. Students integrate prior academic experiences in psychology by combining 100 hours of supervised on-site experience with assignments and seminar-style class sessions.

PSYC 4485: Research Practicum in Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 330I, declared major in psychology, GPA at least 3.0 overall and in psychology, submit an application before registration, and approval of department faculty and permission of the instructor

This course is for students seeking additional experience in applied research settings combining in-class instruction and individual placement either on or off campus. Students who seek employment in a research setting upon graduation or are interested in attending graduate school and wish to obtain additional experience in research techniques should select this course.

PSYC 4490: Special Topics in Psychology

Variable 1-3 Credit Hours

Prerequisite: One 3000-level psychology course

This course will address selected topics of special interest to faculty and students.

PSYC 4498: Capstone Internship in Psychology

3-6 Credit Hours

Prerequisite: PSYC 330I, one course from each of the five psychology curriculum areas (can be completed concurrently with PSYC 4498), and permission of the instructor (via departmental application).

The Capstone Internship in Psychology course is a structured off-campus experience in a supervised setting that is chosen in relation to the student's major and interests. Practical experience is combined with a research approach that investigates issues relevant to the internship. Students meet with the internship coordinator to develop an appropriate plan that will lead to writing and presenting a research-oriented paper that integrates prior academic experiences in psychology, a requirement of the capstone experience.

PSYC 4499: Senior Seminar in Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PSYC 330I and one course from each of the five psychology course areas (any one of the five psychology course areas can be completed concurrently with PSYC 4499).

A capstone course designed to complete the major by integrating the student's prior academic experiences in psychology. Contemporary issues, problems, research, and theories from the different areas identified in the psychology curriculum will be examined. Discussion will focus on both substantive and methodological concerns, as well as interconnections among areas of study. A seminar format will be used throughout the course to encourage student participation and interaction with peers and with faculty

Notes: Offered as an online course.

Real Estate

RE 3400: Principles of Real Estate

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Students are introduced to the principles of real estate analysis and utilization. Subjects include the nature of real property; the legal instruments involved in real property transactions; market analysis and the determinants of real estate values; the appraisal process; investment and financial analysis; and the public policy aspects of real estate planning and utilization.

RE 4500: Real Estate Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: FIN 3100, 60 credit hours with a minimum GPA of 2.0, and Admission to the Coles College Undergraduate Professional Program or student in a Coles College Partner Program that includes this course.

Examines the principles and procedures of real estate appraisal, the transfer process for property, and financing methods for residential and commercial real estate. Studies the income and cost of developing and managing real property and analyzes real estate as an investment.

Religious Studies

RELS 1102: Introduction to Religion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Learning Support Prerequisites: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is an interdisciplinary overview of religion in human culture. Students explore how religion provides meaning and structure to human life by addressing basic questions about the body, nature, spirit, community, and time, and how religious concepts and practices are expressed in texts, ceremonies, rituals, and festivals. The course provides a survey of the conceptual and experiential aspects of religion that enables students to engage in informed, critical, and dispassionate conversations about religion.

RELS 3780: Trends in Religious Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or RELS 1102

This course focuses on current issues and trends in the field of Religious Studies. This course is interdisciplinary includes international content in English. Notes: Course may be repeated with a change in content.

Notes: Course may be repeated with a change in content.

RELS 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of instructor and department chair prior to registration.

In this course the selected topic of an advanced nature not serve by the existing curriculum is investigated by a student working with a supervising faculty member.

RELS 4490: Special Topics in Religious Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102 or RELS 1102

This course is a study of selected special topics of interest to faculty and students.

Notes: This course may be repeated with a change in content.

Renewable Energy Engineering Technology

REET 1000: Energy Fundamentals

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides an introduction to energy fundamentals. The course starts by looking at our societies current energy generation practices and gives a brief overview of the wide range of sustainable alternatives available now and in the future. Topics discussed include energy, power, and efficiency. In addition to power generation, the students will also explore topics of energy storage and transmission. The course will culminate in freshmen design experience that will tie all the concepts together.

REET 2020: Energy Conversion

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: PHYS 1112 or PHYS 2212

This course starts with the introduction to both traditional and renewable energy conversion. Emphasis is placed on renewable energy, especially solar and wind. Fundamentals of electro-mechanical energy conversion follows. Theory of operation and operating characteristics of transformers, DC machines, AC induction machines, and synchronous machines are thoroughly covered. Emphasis is placed on three-phase synchronous and induction machines.

REET 3030: Energy Storage Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: REET 1000, and CHEM 1211

This course will explore the wide range of technology available for energy storage and its impact on the energy industry. Technology will include batteries, super capacitors, flywheels, pumped storage, and hydrogen among others. Special attention will be provided to advanced battery technologies and their use in energy systems.

REET 3550: Introduction to Alternate Energy

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: (PHYS 2211 and PHYS 2211L) or (PHYS 1111 and PHYS 1111L)

This course will introduce students to alternative forms of energy generation, storage and delivery. The class will explore present day technologies using oil, coal and gas then move into emerging technologies such as solar, wind, waves, tidal, geothermal, etc. Storage technologies such as batteries and flywheels will also be addressed along with fuel cell delivery techniques. The course will end by exploring more futuristic possibilities such as space-based solar and high-altitude wind generation.

REET 4040: Senior Design Proposal

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: Senior Standing

In this course, students will conduct initial research into an energy topic of interest to them with the goal of determining their senior design project. A complete proposal document is required to satisfy completion of this course.

REET 4050: Senior Design Project

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: Senior Standing

In this capstone course, the students implement the design and development of an approved project in Renewable Energy Engineering. The project which will involve the design, fabrication, and formal demonstration of hardware and software functionality is completed during the course of the semester. A formal project report and oral presentation are required.

REET 4100: Solar Photovoltaics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: PHYS 1112 or PHYS 2212

The course starts with studying the semiconductor principles of photovoltaic power generation and provides an overview of current materials used in cell fabrication. The organization of solar cells within panel structures are then addressed, as well and the necessary technologies for interfacing these panels to off-grid and on-grid power distribution networks. The course finishes up with a design project where students will be asked to estimate energy needs and create an appropriate system for meeting these needs.

REET 4110: Solar Thermal Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3401

The course starts with a review of basic definitions of thermodynamics and Thermodynamic cycles. General concepts of thermal radiation, radiation properties, radiation intensity and heat exchange between surfaces will be studied. This section includes solar radiation, solar geometry and solar angles, and solar irradiation. Then solar thermal conversion, collectors, central receivers, distributed receivers.

heliostat fields, thermal storage systems and hybrid plants and applications of technology in residential and industrial market will be covered. The course finishes up with a design and energy simulation of solar thermal systems.

REET 4200: Wind Power Generation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: REET 2020, and MET 3101

The course consists of two parts, mechanical and electrical. The mechanical part starts with a review of fluid mechanics. Then the principles of wind power, maximum power, actual power and force analysis on the blades, mean wind and energy velocities will be studied. The Magnus Effect, the lift force the drag force and different wind turbine designs will be covered. The electrical part: designing a wind turbine system that can generate power with high efficiency requires a thorough understanding of the principles of aerodynamics of the rotor system. The influence of the number of blades, the tilt angle of the blades on the power output of the wind turbine will be covered. The current-voltage characteristic of wind turbine with constant rotation speed and constant wind speed will be studied. The construction, operation and speed control of three-phase induction motors will be thoroughly covered. The course ends up with a design project of a wind turbine.

REET 4210: Oceanic and Hydropower Generation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MET 3401, and MET 3101

General concepts of thermodynamic processes and cycles will be reviewed in the beginning. The course has two different sections. In the first section, "Energy from the Ocean" will be studied. In this section, first "Ocean Temperature Energy Conversion" (OTEC) will be discussed and then "Open and closed OTEC cycles" will be covered. This section will be continued with ocean waves, wave motion, energy and power from waves, wave-energy conversion by floats, different types of "wave machines" and tidal systems. In the second section, other "Hydropower generation methods" will be addressed. In this section, different types of hydropower generation such as hydroelectric dams, run-of-the-river hydroelectricity, and pumped-storage hydroelectricity will be discussed. This section includes different types of impulse and reaction water turbines. The course concludes with a design project of a "Hydropower Generation System".

REET 4500: Environmental Aspects of Power Generation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: REET 1000, Junior Standing

This course examines the environmental impact of electrical power generation. The environmental impact of traditional power generation schemes such as coal, hydroelectric, nuclear, and fossil fuels will be examined along with the impact, as well as the potential impact, of Renewable Energy sources such as solar, wind, oceanic and fuel cells.

REET 4510: Sustainable Transportation Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ECET 2300, and CHEM 1211

This course will explore the pros and cons of alternative transportation systems including electric, hybrid, compressed air, and fuel cell vehicles. Topics explored include infrastructure requirements, overall system efficiencies, and hidden costs of implementation. The course finishes up with a focused transportation system analysis.

Russian

RUSS 1001: Introduction to Russian Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of all Learning Support English requirements

Introduction to the Russian language and culture, stressing progressive acquisition of effective communications skills in both the written and spoken language and an understanding of the practices and products of the culture being studied. Not open to native speakers of Russian.

RUSS 1002: Introduction to Russian Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: RUSS 1001

Introduction to Russian language and culture, part II, stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Russian culture. Not open to native speakers of Russian.

RUSS 2001: Intermediate Russian Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: RUSS 1002

Builds upon acquisition of communication skills begun in high school. The student will continue to develop proficiency in listening, speaking, reading and writing and learn to communicate in culturally appropriate ways. Not open to native speakers of Russian.

RUSS 2002: Intermediate Russian Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: RUSS 2001

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Not open to native speakers of Russian.

RUSS 2290: Special Topics in Russian

1-3 Class Hours 0 Laboratory Hours 1-3 Credit Hours

Prerequisite: Permission of the department chair.

This course covers special topics of interest at the beginning or intermediate levels. It is primarily for studies abroad in Russian language and culture.

Science

SCI 1101: Science, Society, and the Environment I

3 Class Hours 2 Laboratory Hours 4 Credit Hours

Prerequisite: Successful completion of all Learning Support English and Learning Support Mathematics requirements.

This course is the first in a two part sequence that fulfills the general education science requirement. Using the context of environmental issues it introduces students to the basic nature of matter, energy, and living systems and to the nature of science. Emphasis is placed on making decisions about scientific issues. Science 1101 is not designed for science majors and is not a prerequisite for introductory courses in biology, chemistry, or physics.

SCI 1102: Science, Society and the Environment II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SCI 1101 or its equivalent.

This course is the second in a two part sequence that fulfills the general education science requirement. Using the context of environmental issues, it introduces students to the basic skills and scientific understandings needed by educated citizens to make informed decisions about scientific issues.

SCI 3360: Earth Science

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: A grade of "C" or better in any core lab science sequence, including SCI 1101/1102.

An introduction to basic earth science concepts and methodology (including geology, meteorology, and oceanography) will be covered. Special emphasis will be placed on dynamic Earth processes (plate tectonics, earthquakes, volcanism, climate, etc.) and their effects on the structure and composition of the landforms, oceans, atmosphere, and organisms. The lab component includes hands-on evaluation of a collection of Igneous, Metamorphic and Sedimentary rocks, topographic map analyses, spectral imaging and remote sensing, and modeling weather related phenomena.

SCI 3365: Earth Watch: Examining Global Environmental Issues

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SCI 1102

An examination of the integrative nature of environmental sciences; emphasis on human interactions with world environments. Discussions will focus on case studies, environmental problem-solving, and the

development of a personal ecological ethic. Ecological principles of population, community, ecosystem and biosphere will be integrated in the case studies.

SCI 4700L: Applied Environmental Studies

2 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: SCI 1101 and SCI 1102

An interdisciplinary, field-based, capstone course. Students will apply skills learned in previous courses in a team-based project. The experience will be documented in an environmental assessment report describing the land and aquatic systems in terms of use, conditions (chemical, biological, physical), economic impact, environmental policy and management.

Science Education

EDSM 2010: Knowing and Learning in Science

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDSM 1102 with a grade of "C" or better.

Students construct a model of knowing and learning that will guide their future classroom practice. Issues of what it means to learn and know science, how what we know changes and develops, and the standards used to measure what science is known inform this model. Students will also explore the connections between kinds of assessments and theories of knowing. This course is restricted to participants in the UTeach program.

SCED 242I: Classroom Interactions

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: EDSM 2010 and Admission to Teacher Education

This course examines teachers, students, content, and interactions that lead students who are culturally, linguistically, or academically diverse to develop conceptual understandings of science. Science teacher candidates design and implement instructional activities informed by their understanding of science learning, then assess student learning of science. This course includes a 45 hour middle school science teaching experience as introduction to the adolescent learner, the equity imperative and science education reform.

SCED 3010: Perspectives in Teaching Science

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: EDSM 2010 and Admission to Teacher Education

Students apply and extend their understanding of knowing and learning in science by surveying the history of science and science education reform for application to teaching practice. Students deepen their ability to relate practices of modern science to their developing perspective on learning and teaching science as they analyze curricula and design reform-based science instruction. Lab component includes tutoring of secondary or tertiary science learners.

SCED 4000: Service Learning in Science Education

1-3 Credit Hours

Prerequisite: 60 hours and permission of the instructor and department chair/program director.

A community activity which links learning to life by connecting meaningful community service activities with academic learning, personal growth, and civic responsibility. Activity will be designed with the instructor and approved by the chair/program director.

SCED 4498: Internship in Teaching Science (6-12)

0 Class Hours 36 Laboratory Hours 12 Credit Hours

Prerequisite: Provisional teaching license issued by State of Georgia, full-time employment teaching science, and permission of science education advisor.

Student Teaching experience in science for provisionally certified teachers. Supervision will be in collaboration with a mentor-teacher in the local school and a specialist in science education. This internship will automatically substitute for SCED 4475. Proof of professional liability insurance is required. Student is responsible for their own school placement.

Secondary Education

EDSM 3000K: Survey of Life Science

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: SCI 1102 and EDUC 2130

This course is a survey of life science topics designed to support middle grades education candidates in achieving the NSTA Middle Grades Content Standards for Life Science. Inquiry laboratory experiences are included in the course. This course is not appropriate for majors other than middle grades education with a science concentration.

SED 2220: Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the director of the Center for Education Placement and Partnerships and advisor.

A practicum in a classroom during which the student will be actively involved in the teaching-learning process under the guidance of a professional teacher.

SED 3398: Internship

1-12 Credit Hours

Prerequisite: Permission of the director of the Center for Education Placements and Partnerships and advisor.

A supervised teaching experience for teachers seeking certification renewal credit.

SED 4400: Directed Study

1-3 Credit Hours

Prerequisite: Permission of the instructor and department chair prior to registration.

A concentrated investigation of a particular aspect of education as a topic within a teaching field concentration or degree major. The content of the directed study will be determined jointly by the instructor and the student.

SED 4490: Special Topics in Education

1-3 Credit Hours

Prerequisite: Permission of the instructor and department chair.

Selected special topics of interest to faculty and students.

Sociology

SOCI 1101: Introduction to Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This course is an overview of sociology, which emphasizes the social nature of human behavior, including an introduction to culture, social structure, socialization, deviance, stratification, family, gender, religion, demography, and complex organization.

SOCI 2000: Introduction to Gender Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: A grade of "C" or better in ENGL 1101

This course examines the ways that women's and men's gender roles are shaped by social interaction. Using materials and learning approaches from multiple disciplines, students will explore questions about how individual and group expectations about gender behavior are created and sustained.

SOCI 2210: Professional Development for Sociology Students

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course is designed to introduce students to the skills and strategies necessary to successfully meet the requirements for a B.S. in Sociology. The course provides information about career opportunities in Sociology and related fields, as well as information about preparing for and applying to graduate school. The primary objective of this course is to assist students in developing a plan to reach their academic and career goals.

SOCI 225 I: Social Problems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

An overview of current social problems facing American society with attention to developing insights into the conceptual analysis of meaningful solutions.

SOCI 3300: Foundations of Social Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course surveys the historical development of social theory. It emphasizes the major theories and theoreticians of sociology and their importance for understanding contemporary sociology.

SOCI 3303: Statistics for Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or CRJU 1101

This course introduces a wide range of statistical concepts and techniques used in sociology. Students learn how to summarize data, generalize from a sample to a population, and determine the relationships between two or more variables. The course emphasizes the application, interpretation, and critique of various statistical techniques, including means tests, cross tabulation, ANOVA, correlation, and regression. Students use computer software to analyze sociological data.

SOCI 3304: Social Organization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

An introduction to large scale social organizations, with an emphasis on bureaucracy. Examines both the formal and informal aspects of bureaucracy, including topics ranging from power and authority, to centralization and decentralization, red tape, and professionalism.

SOCI 3305: Research Methods in Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 and SOCI 2210

This course provides an introduction to concepts and techniques used in social science research. Students acquire a foundational understanding of research methods in sociology, learn how to link theory and data, and examine the ethical considerations required for social research.

Notes: Offered as an online course.

SOCI 3310: Introduction to Gerontology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or PSYC 1101

Introduction to the multi-disciplinary field of gerontology which provides an overview of the sociology,

psychology, and the physiology of aging. Students will consider research and theories of aging as well as participate in field trip experiences in gerontological settings. A key goal is to develop a more realistic perception of the aging process.

SOCI 3314: Race and Ethnicity

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or permission of the instructor.

A survey of racial and ethnic relations, concentrating on the American experience. Stress is placed on the dynamics of prejudice and discrimination, and assimilation versus pluralism, including discussions of multiculturalism, bilingualism, and affirmative action.

SOCI 3315: Comparative and Transnational Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course examines the theoretical and methodological foundations of comparative and transnational sociology. In addition to explaining the classical sociological foundations of comparative sociology, the course explores the challenges posed to comparative sociology by the processes of globalization and transnationalization. In this context, the course explores the emerging transnational sociological approach that goes beyond the nation-state framework in analyzing cross-border processes and structures that inform contemporary global change.

SOCI 3320: Exploring the Aging Network

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or PSYC 1101

This class explores the range of services, programs, and employment opportunities related to aging. The goal is to familiarize students with the gerontology field so that they can develop interests, contacts, resources, and knowledge about the aging network to use both personally and professionally. Students further develop and refine academic plans, career paths, and personal and professional goals related to working with older adults.

SOCI 3324: Sociology of Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course examines gender as a major organizing principle in society and explores the ways in which gender intersects with other types of social differentiation including race, sexuality, social class, and nationality. The course also explores the implications of changes in family, economic, and political structures related to gender and their impact on equality in contemporary society.

SOCI 3333: Technology and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or ANTH 1102

This course will examine the interaction between scientific and technological development and social

development, social structure and social issues.

SOCI 3334: Religion and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or ANTH 1102

Examination of religion as a social institution in historical, comparative, and contemporary terms. World religions and new religious movements are studied as sociocultural processes involving the need to know, to deal with problems and to adapt to change.

SOCI 3344: Biotechnology and Social Change

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or permission of the instructor

This course is designed to examine the multiple manifestations of biotechnology and their social change implications. The course locates the biotechnology revolution in the broader socio-historical context within which it is emerging. The course focuses on the examination of the ways in which the development and deployment of biotechnology are transforming the cultural and institutional character of modern societies. This includes an examination of social, ethical/moral and legal/legislative issues and their impact on policy.

SOCI 3350: Intersections of Race, Class, and Gender

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

The primary objective of this course is to understand how race, class, and gender intersect to fundamentally shape social interaction, conditions, and institutions in American society. This course examines the ways in which race, class, and gender are socially constructed and how they interconnect to create and maintain systems of privilege and inequality.

SOCI 3354: Social Class and Mobility

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

Examination of social class and hierarchy in America. Issues in empowerment, equality, styles of life, and the nature of poverty and social mobility will be highlighted.

SOCI 3360: Sociology of Violence

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101 or SOCI 1101

This course examines the root causes and consequences of violent behavior exhibited by individuals in our society. Topics covered include the social and cultural contexts that breed violence, society's influence on specific crimes, and human social behavior.

SOCI 3364: Sociology of the Family

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

Presents the institution of the family in historical and cross-cultural perspective, including an analysis of the American family system, its social structure and alteration, and its relation to other social institutions.

SOCI 3374: Sociology of Occupations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

An analysis of the contemporary occupations, with emphasis on large scale organizations, the structure of occupations and the nature of work.

SOCI 3380: Society, Community, & Health

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course explores the connections between society, communities, and the health of individuals. Topics include sociological approaches to global health inequalities, tensions between medicine and culture and the ethics of public health and biomedical research. Students critically analyze major issues of health and illness confronting selected subpopulations. The course introduces students to selected theoretical frameworks that address social determinants of health.

SOCI 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education (CAPS) and department chair.

A supervised work experience program for a minimum of two academic semesters at a previously approved site in business, industry, government or private agency. For sophomore, junior or senior level students who wish to obtain successive on the job experience in conjunction with their academic training.

SOCI 3398: Internship

1-12 Credit Hours

Prerequisite: 90 hours and SOCI 3304

A structured off-campus experience in a supervised setting which is related to the student's major and career interests. Practical experience is combined with scholarly research in the topical area of the internship, under the guidance of an interdisciplinary faculty committee. Sites must be approved in advance of the semester of the internship. A departmental internship orientation session is scheduled at least once a semester.

SOCI 4200: Drugs, Alcohol and Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course examines drug use and abuse, including alcohol. Specifically, it examines how different drugs affect the body, theories of drug use, the sociological context of drug use, the impact of drug use and abuse on society, drug treatment, drug use policies, drugs and the law, and the extent of drug use in our society and globally.

SOCI 4400: Directed Study in Sociology

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Covers special topics and seminars external to regular course offerings. May include original research projects and practicum experiences.

SOCI 4410: Advanced Qualitative Research Methods in Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 3305 and SOCI 3300

Concurrent: SOCI 3300

Students learn the qualitative strategies used in sociology research methods, including ethnographic techniques applied in sociology, participant observation, in-depth interviewing, and content analysis. Students learn ethical implications of social research, and how to design a qualitative research study, develop interview guides, construct content analysis templates, conduct observations on the field, conduct interviews, code data, and analyze qualitative data. Students learn skills using software applications for data management and analysis and write a research proposal.

SOCI 4420: Advanced Quantitative Research Methods in Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 330 , STAT 1107, and SOCI 3300

Concurrent: SOCI 3300

This course examines the concepts and techniques used for quantitative research in sociology. Students learn to interpret, calculate, and critique the basic statistics used in quantitative methods in sociology. Students acquire the skills to use Statistical Package for Social Sciences (SPSS) computer program for managing and analyzing numerical data. Students learn the ethical implications of social science research and write a research proposal for a quantitative study.

SOCI 4432: Criminology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CRJU 1101 or SOCI 1101

An overview of theory and practice, the nature and cause of crime, and the etiology of criminal offenses

and offenders.

SOCI 4434: Emerging Social Issues in Africa

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or permission of the instructor.

As the twenty-first century unfolds Africa and its peoples are being engulfed by a series of interrelated social issues that are set to shape their collective futures. This course examines these social issues in terms of their nature, patterns, sources and implications for Africa's socioeconomic development. The examination of these factors from both historic and contemporary perspectives includes the use of critical pedagogy. This course also examines potential remedies to the various social issues.

SOCI 4435: Sociology of South Asia

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

This course examines social change and development in the South Asian societies through a historically informed analysis of social institutions in the region. Some of the key themes explored include contested histories, identity politics and nationalism, democratization, growth, poverty, and inequality. The course includes case studies from Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka, but its main focus is on India.

SOCI 4442: Deviance and Social Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

A survey of the nature, causes, and consequences of deviant behavior. Provides an analysis of the problems of definition, identification, explanation, and social reaction to violations of institutional expectations. Presents techniques of social control.

SOCI 4443: Medical Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

Provides an analysis of (1) the social processes affecting conditions of health and illness and (2) the cluster of social relationships and organizations that comprise the social institution of health. Emphasizes the sociocultural factors that influence definitions of health and illness, causes, preventions and treatments, cross-cultural and interclass comparisons of stress, delivery of health care, mental illness, death and dying, and health care professionals.

SOCI 4444: Social Change and Modernization

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

The nature, types, and causes of social change; technological and sociocultural factors affecting processes of change. Innovation, diffusion, and the process of acceptance and rejection of change by social systems and social groups.

SOCI 4445: Sociology of Mental Illness

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101 or PSYC 1101 or permission of the instructor.

This course examines the social aspects of mental illness. Mental illness is not just a psychological or biological affliction. Because it is also, in part, socially created and controlled, the course is designed to help students understand who gets labeled "sick" and why. Included are a review of the social history of mental illness and an examination of the institutions assigned to manage it. Among the topics considered will be how mental disorder is defined and diagnosed, and how it is treated. Also considered will be the social factors that influence its severity and course. One of the questions addressed will be whether all "mental disorders" are "diseases." The applicability of a resocialization model to this issue will likewise be studied. Finally, the ethical aspects of all of these approaches will be considered.

SOCI 4464: Population

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 1101

An analysis of the size, growth, composition, distribution, and characteristics of the population with emphasis on application of demographic information to socioeconomic structure, and implications of population change.

SOCI 4490: Special Topics in Sociology

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of interest to faculty and students.

SOCI 4499: Senior Seminar in Sociology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SOCI 3300 and (SOCI 3305 or SOCI 2301)

This capstone course is designed to complete the major by integrating theory, research, and sociological issues from divergent specialty areas of the sociology curriculum. Students synthesize the material from previous sociology courses, highlighting the central importance of the intersecting impact of race, class, and gender. Students submit and present a final report.

Software Engineering

SWE 3313: Introduction to Software Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 1302 or CSE 1302

This course provides an overview of the software engineering discipline, introducing the student to the fundamental principles and processes of software engineering. This course highlights the need for an engineering approach (both personal and team) to software with understanding of the activities performed at each stage in the development cycle. In this course, students will perform requirements

analysis, design, implementation and testing. The course presents software development processes at the various degrees of granularity. Students will become aware of libraries of standards (IEEE, ACM, SWEBOK, etc.).

SWE 3623: Software Systems Requirements

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SWE 3313, CSE 2300

This course covers engineering activities related to the definition and representation of software system requirements. Topics include the elicitation, analysis, specification and validation of software system requirements. Emphasis is on the application of processes and techniques of requirements engineering. Projects focus on current analysis methods and supporting tools for specification, organization, change management, traceability, prototyping, and validating requirements.

SWE 3633: Software Architecture and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SWE 3313

This course covers the fundamental design principles and strategy for software architecture and design. Architectural styles, quality attributes, design notations and documents, reference architecture, domain specific architecture in architecture process and pattern-oriented design, component-oriented design, and interface design in detailed design process are discussed.

SWE 3643: Software Testing & Quality Assurance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SWE 3313

This course will show how software quality assurance and configuration management is performed and how software process improvement is maintained in order to assure the highest possible quality. Topics include software process metrics and their use in QA, testing approaches, methods and techniques. Development of QA plans, reviews, inspections and audits will be done. Configuration control boards and methods for software process improvement is discussed.

SWE 3683: Embedded Systems Analysis and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

The analysis and design course focuses on using modern methods, techniques, and tools for specification and design of embedded systems. Topics include analytical methods such as RMA, development methods such as HOOD, and notations like UML, Petri-nets, etc. are covered. Performance evaluation based on modeling and simulation techniques is also covered. This is a project based course.

SWE 3843: Embedded Systems Construction and Testing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3243

This course covers fundamental principles and techniques for embedded software engineering. It focuses on a component-based development approach to designing, implementing, and testing embedded programs. Topics include building standard-alone and networked embedded systems, validation and verification of trustworthy embedded software, testing tools and environment, quality assurance and metrics for embedded systems, and hardware/software co-design and co-testing.

SWE 4324: User-Centered Design

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: CS 1302 or CSE 1302 or IT 1324

A course that presents the fundamental knowledge, processes, skills, and practices leading to the user-centered design of computer systems and applications. The course addresses the effectiveness of human interactions with computers by examining issues of physical ergonomics, cognition and perception, human memory and information processing, and evaluation of prototype software in a Usability Lab. Usability engineering techniques are covered leading to improved system effectiveness in supporting use of computers, user learning, diversity in interaction styles, and individual versus group work. Class exercises provide practice of needed skills. A major project that integrates all aspects of user-centered task-oriented design is included.

SWE 4490: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course offers advanced topics in Software Engineering selected by the Department. The course covers special topics at the senior level that are not covered in the regular course offerings.

SWE 4633: Component-Based Software Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

This course covers the concepts and foundations of component-based software development (CBSD) and its related technologies. Component-oriented tools and languages, approaches for implementation of CBSD, including designing, building, assembling, and deploying reusable COTS components are discussed in depth. The current component technologies such as Microsoft .NET components, Sun JavaBeans and Enterprise JavaBeans components, and web services components will be explored.

SWE 4663: Software Project Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SWE 3313 and MATH 2332

This course focuses on organizational and technical roles in software engineering. Models of software engineering life cycle, software maturity framework, strategies of implementing software, software process assessment, project planning principles and tools, software configuration management, managing software quality and usability, leadership principles and legal issues will be covered. A

required team project combines technical and managerial techniques of software design and development.

SWE 4713: SWE Application Domain

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two of the three: SWE 3623, SWE 3643, SWE 4663

Students work as part of a team to develop solutions to problems posed by either internal or external customers in a specific SWE Application Domain. The purpose of the course is for the student to gain an understanding of the selected application domain, and its use of software to support functions/operations within that domain. Application domain selection is done every term from a variety of industrial domains including Security, Gaming, Automotive, Aerospace, Military, Finance and Commerce. Problems may require considerable software development or evolution and maintenance of existing software products. The course culminates with the completion and presentation of an increment of the project solution.

SWE 4724: Software Engineering Project

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: TCOM 2010 & COM 1100 & Three of the following: SWE 3623, SWE 3633, SWE 3643, SWE 4324, SWE 4663

This is the capstone project course and constitutes a major design experience. The course focus is on a team project comprising the development of a realistic software system during all phases of the software development life cycle. Topics include software project management, design, verification and validation, development, evolution and quality assurance. Current methods, techniques, and software tools are utilized in the development of the project.

SWE 4743: Object-Oriented Development

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: CS 3304

This course involves engineering activities related to the analysis, design, and implementation of object-oriented software systems. Topics include modeling foundations, requirements specification and documentation, design concepts and strategies, and OOAD methodologies with an emphasis on UML. The course includes a major project utilizing current analysis and design methods and tools implemented in a contemporary IDE.

SWE 4783: User Interaction Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SWE 3313 or SWE 4324

This course follows a complete software-engineering cycle to produce software objects (classes and/or components) that support users in effective, efficient, and enjoyable interactions with computers. Class exercises and a project incorporate concepts and methods including ethnographic and user analysis; cognitive ergonomics; usability metrics and criteria; software-engineering practices, conventions, standards, and documentation; device-user action mapping; person-system function allocation; quality management systems; conceptual proto-typing; embedded systems in support of ubiquitous computing;

and function-behavior analysis.

SWE 4803: Independent Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Program Coordinator and Faculty approval

Independent study/project under the direction of a member of the graduate faculty. Course description will vary.

Spanish

SPAN 100I: Introduction To Spanish Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of all Learning Support English requirements

Introduction to Spanish language and culture, stressing progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Hispanic cultures. Not open to native speakers of Spanish.

SPAN 1002: Introduction to Spanish Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Spanish or SPAN 1001 or the equivalent.

Introduction to Spanish language and culture, "Part II," stressing continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Hispanic cultures. Not open to native speakers of Spanish.

SPAN 200I: Intermediate Spanish Language and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Two years of high school Spanish or SPAN 1002 or the equivalent.

The student will continue to develop proficiency in listening, speaking, reading, and writing, and learn to communicate in culturally appropriate ways. Not open to native speakers of Spanish.

SPAN 2002: Intermediate Spanish Language and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Three years of high school Spanish or SPAN 2001 or the equivalent.

Students continue to increase linguistic and cultural proficiency through the use of a variety of materials and activities. Course will serve as a transition between intermediate and upper-level courses in Spanish. Not open to native speakers of Spanish.

SPAN 2003: Accelerated Intermediate Spanish Language and Culture

6 Class Hours 0 Laboratory Hours 6 Credit Hours

Prerequisite: Two years of high school Spanish or SPAN 1002

This accelerated intermediate level course in Spanish language and culture covers in one semester the materials presented in SPAN 2001 and SPAN 2002. The course stresses continued, progressive acquisition of effective communication skills in both the written and spoken language and an understanding of the practices and products of Hispanic cultures.

SPAN 2032: Spanish for Health Professionals

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course focuses on Spanish language and culture appropriate for working with Hispanics in the medical field.

SPAN 2034: Spanish for Criminal Justice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One year of high school Spanish or SPAN 1001 or the equivalent.

This course focuses on Spanish language and culture appropriate for working in the fields of Criminal Justice with Hispanics. Not open to native speakers of Spanish.

SPAN 2290: Special Topics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Permission of the department chair.

Special topics of interest at the intermediate level. Used primarily for studies abroad.

SPAN 3200: Critical Reading and Applied Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 2002 or SPAN 2003

This course emphasizes skill development and refinement in the areas of critical reading and writing in Spanish. Designed to give students extensive experience in reading and writing in Spanish, the course focuses on the relationship between writing and reading, and on ways to improve one through the other.

SPAN 3302: Practical Conversation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 2002 or SPAN 2003

This course stresses expansion of effective listening comprehension and speaking skills through culturally and linguistically appropriate activities.

SPAN 3303: Grammar and Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 2002 or SPAN 2003

This course provides a general review of grammar through composition and other written activities, such as summaries, correspondence, descriptions, narration, literary analysis, and other rhetorical and culturally appropriate forms.

SPAN 3304: Literature and Culture I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3200 and SPAN 3303

An introduction to Hispanic literature and culture from the Middle Ages to 1850. Students examine literary and artistic movements as well as cultural issues of the period. Readings and discussion in Spanish.

SPAN 3305: Literature and Culture II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3200 and SPAN 3303

An introduction to Hispanic literature and culture from 1850 to the present. Students examine literary and artistic movements as well as cultural issues of the period. Readings and discussion in Spanish.

SPAN 3390: Upper-division Study Abroad in Spanish

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior or Senior status and permission of the department chair.

This course fulfills the study abroad requirement for the B.A. in Modern Language & Culture with a primary language of Spanish. The content of the course may vary depending on available course offerings in the foreign institution. The chair of the Department of Foreign Languages must preapprove the use of this course as partial fulfillment of the requirements for the degree in Modern Language & Culture.

SPAN 3398: Internship

1-9 Credit Hours

Prerequisite: SPAN 3302 AND SPAN 3303 or permission of the instructor.

Supervised, credit earning work experience of one semester requiring use of Spanish in the work place. Prior approval by department coordinator and internship supervisor is required. No more than three semester hours may be applied toward the major.

SPAN 4400: Directed Study

1-3 Credit Hours

Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.

Covers special topics and seminars external to course offerings that allow a student to work individually

with an instructor. Requires prior approval by instructor and department chair.

SPAN 4402: Contemporary Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3304 or SPAN 3305

An examination of the historical, social, and political contexts of the contemporary Hispanic experience through the analysis of different cultural representations such as film, media, plastic arts, music and literature. Readings and discussion in Spanish.

SPAN 4404: Commercial Spanish

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3302 AND SPAN 3303 or permission of the instructor.

An in-depth study of business practices and the language of business that focuses on verbal and written communication as well as economic, social and political factors that are important to the conduct of business in the Spanish-speaking world.

SPAN 4434: Topics in Language, Literature, and Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3304 and SPAN 3305

An exploration of a period, movement or genre in literature, a topic in culture, or language-related issues. Topics are chosen for their significance and impact on Hispanic cultures. Course taught in Spanish.

SPAN 4456: Advanced Grammar and Linguistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3302 and SPAN 3303

Advanced study of grammar from a linguistic perspective. Provides an overview of phonetics, phonology, morphology, and syntax. Exposes students to dialectical variations of the Spanish-speaking world. Stresses development of oral proficiency. Course taught in Spanish.

SPAN 4490: Special Topics in Spanish

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3302 and SPAN 3303 or permission of the instructor.

Special topics relevant to the study of Spanish-speaking societies.

SPAN 4499: Senior Seminar

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SPAN 3304 and SPAN 3305 and senior status.

This is a capstone course designed to synthesize and connect the student's prior academic experiences in the major and related fields of study. Students will prepare a reflective essay and a research paper to present to the faculty. Papers and presentation in Spanish.

Sport Management

SM 2100: Introduction to Sport Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course provides an introduction to sport management. Topics include historical development of the discipline, overview of the profession, professional organizations, current issues, future trends, and career opportunities.

SM 2200: History and Contemporary Aspects of Sport

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses on the evolution of sport within the United States and how it compares and contrasts with the development of sport around the world. Topics include the development, youth sport, collegiate athletics, professional sports leagues, international competition, culture, race, and gender.

SM 2300: Legal Aspects of Sports

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses on the application of legal principles to the sport, recreation, and fitness industries. Topics covered include agency law, tort liability, contract law, antitrust law, Constitutional law, labor law, and criminal law.

SM 2400: Sports Information and Media

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

The primary purpose of this course is to familiarize students with the field of sport information including mass communication, the print media, the broadcast media, sports news releases, interviewing, and public relations. Emphasis is placed upon the gathering, managing, and delivering of information about sport organizations, teams, players, and coaches to the public.

SM 3100: Sports Sociology and Psychology

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course provides a survey of social and psychological factors affecting performance in sports and physical activity. Topics include leadership, motivation, group cohesion, social facilitation, arousal/anxiety, cognitive processes, competition, and cooperation.

SM 3200: Leadership and Management of Sport Organizations

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

Students explore the theoretical frameworks of the body of knowledge of Sport Management, the

practical applications of those frameworks, and the ethical issues confronting today's sport managers. This course also provides application for the development of skills necessary to be an effective and efficient leader regarding communication, motivation, and decision-making. The role of human resources and leadership theory in an atmosphere of complexity and diversity is also explored.

SM 3300: Sport Event Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses upon how to successfully plan and execute sport events. Topics addressed include the determination of objectives, developing a budget, marketing, recruiting attendees, and safety.

SM 3398: Internship

1-6 Class Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA, and permission of the department chair.

This course is a supervised, credit-earning experience of one academic semester with a previously approved business firm, sport organization, private agency or governmental agency. The course is repeatable for up to 6 credit hours.

SM 3400: Sport Facility Design and Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses upon the principles and theories involving the overall design and management of events in indoor and outdoor facilities for sport and physical activity. Topics covered include facility design, planning, management, operations, and maintenance.

SM 3500: Sponsorship and Fundraising in Sport

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses on the role of sponsorship and fundraising in sport. Students are exposed to sport-specific fundraising challenges and goals for events, facilities, and organizations in the sports industry. The roles of media and public relations are also addressed. This course stresses practical applications in unique situations faced by sport management practitioners.

SM 3600: Sports Broadcasting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course focuses on the many disciplines in the art of sports broadcasting. The course emphasizes current techniques and applications. Students are required to produce and present sports broadcasting materials encompassing studio and remote applications.

SM 3700: International Sport Governance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course introduces students to a wide spectrum of issues related to the governance of international sport organizations and events throughout the world. Students are introduced to the roles that politics, culture, and policy play in international sport organizations. Topics covered include the Olympics, Paralympics, intercultural communication and sport models throughout the world.

SM 3900: Foundations of Recreation and Leisure

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course provides a foundation for the study of recreation and leisure and the organizations that deliver recreational services. It includes an overview of the philosophical, historical, social, cultural, and political factors which influence recreation and leisure. The course emphasizes the role of the professional in the delivery of recreational services.

SM 4200: Recreation Programming

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course provides students with an overview of recreation programming across the age spectrum and diverse populations. Leisure programming trends and niche marketing are examined as well. This course also facilitates the understanding and application of the recreation program process for leisure delivery systems including an introduction to activity plans, program design, delivery, and evaluation.

SM 4300: Commercial Recreation and Tourism

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100 minimum 2.75 Institutional GPA.

This course introduces students to historical and contemporary perspectives of the field of commercial recreation and tourism. The course stresses the necessary writing, technical, business management, and people skills needed to compete in the current recreation and tourism marketplace.

SM 4400: Directed Study

1-6 Class Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA, and department chair prior to registration.

This course covers topics of an advanced nature external to regular course offerings and requires independent instruction according to an agreement with a faculty supervisor.

SM 4490: Special Topics in Sport Management

1-3 Class Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course covers selected topics of interest in sport management that are not regularly offered by the Department of Exercise Science and Sport Management.

SM 4600: Research Methods in Sport Management

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course provides students with an overview of the research process applied in the study of sport management. Students are introduced to experimental design, data gathering techniques, and statistical concepts and methods applicable to the sport management discipline. Students are expected to produce and critique academic research.

SM 4650: Sports Analytics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 4600 and SM 4700

This course focuses on statistical applications in the field of sport management. Students will be introduced to analytical methods used to explain current trends in the sports marketplace. Students will learn how to formulate a research hypothesis and analyze that hypothesis using statistical software and statistical techniques including correlation, hypothesis testing, analysis of variance, nonparametric techniques, and regression. Students will also learn how to write a report based on the findings of their research.

SM 4700: Sports Economics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, and ECON 2100, minimum 2.75 Institutional GPA.

This course applies economic principles to sports. Economic models from industrial organization, public finance, labor economics, game theory, macroeconomics, and other fields of economics are used to gain a better understanding of sports and the modern sports industry.

SM 4800: Sports Finance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SM 2100, minimum 2.75 Institutional GPA.

This course covers basic principles of finance as they relate to sports. Emphasis is placed current practices and issues relating to funding, budgeting, and revenue acquisition in sports through private and public means. Topics include taxing and borrowing, ticket sales, concessions, broadcast sales, and sponsorship. The course includes an introduction to collection and analysis of sports business data.

SM 4900: Senior Seminar in Sport Management

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: Completion of all 2000-level and 3000-level non-elective Sport Management courses, minimum 2.75 Institutional GPA.

This capstone course for the Sport Management major integrates the major coursework with field-based experience. Two-thirds of the course is devoted to a practicum field experiences at a site, which is located by the student and pre-approved by the instructor prior to the beginning of the semester. Contemporary issues, problems, research and theories are discussed. Additional course content includes: strategies for seeking internship and entry-level employment, long-term career planning, and post graduate study options.

SM 4950: Senior Internship in Sport Management

0 Class Hours 36 Laboratory Hours 12 Credit Hours

Prerequisite: SM 4900, 90+ credit hours, minimum 2.75 Institutional GPA.

This course provides students with an opportunity for an in-depth work experience at an approved sport management internship site. Students are expected to acquire relevant skills and develop a professional network in order to prepare for entry-level employment in the sport marketplace.

Statistics

STAT 1107: Introduction to Statistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1101 or MATH 1111 or MATH 1112 or MATH 1113 or MATH 1190

This course in basic statistics includes descriptive statistics, probability, distributions, hypothesis testing, inferences, correlation, and regression.

STAT 3010: Computer Applications of Statistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 1107 or ECON 2300 or STAT 3125 or MATH 3332

This course is an introduction to the use of computer-based statistical software packages and applications in the analysis and interpretation of data. Topics include both descriptive statistics and inference methods. Software packages include SAS, Excel, and R, and one of JMP, SPSS, or Minitab.

Notes: Offered as an online course.

STAT 3120: Statistical Methods I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3010

This course is designed to provide students with a foundation in statistical methods, including confidence intervals for population parameters, correlation, linear regression and hypothesis testing (F and T-tests for regression, chi-square for independence, 2 group and paired sample T-tests). These concepts are taught with heavy emphasis on statistical computing software and real world datasets. Students are

expected to have a working knowledge of SAS, SPSS, and Minitab.

STAT 3125: Biostatistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: BIOL 1107 or CHEM 1212 or permission of the instructor.

In this course students use descriptive statistics and visual displays to describe data. They learn about some common population and sample distributions. They perform and analyze results of statistical inferences, including confidence intervals, correlation, linear regression, odds/risk ratios, and hypothesis testing (F and T-tests for regression, Chi-square for independence, 2 group and paired sample t-tests). Analyses are performed using MS-Excel. The student is required to select, analyze and interpret real life data for a project.

STAT 3130: Statistical Methods II

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3010 and (STAT 3120 or STAT 3125)

Students continue to build their foundation in statistical methods in this course beginning with review of t-tests. They perform and analyze results of Wilcoxon Signed Rank and Rank Sum tests (Non-Parametric t-tests), ANOVA, Kruskal Wallis (Non-Parametric ANOVA) and Multiple Regression. These concepts are taught with heavy emphasis on statistical computing software (especially SAS) and real world datasets.

STAT 3396: Cooperative Study

1-3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/internship.

This course is a supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. It is for sophomore, junior, or senior-level students who wish to obtain successive on-the-job experience in conjunction with their academic training.

STAT 3398: Internship

1-9 Credit Hours

Prerequisite: Approval of the program coordinator and department chair.

This course is a supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

STAT 4025: Clinical Trial Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3125 or STAT 3120

The course introduces students to statistical concepts used to design clinical trials, or randomized studies of humans. Students will be able to design, conduct, and analyze clinical trials in the format required by the Food and Drug Administration. The topics include endpoint definition, sources of bias, randomization schemes, types of blindness, phases of clinical studies (I-IV), hypothesis formation, sample size determination, patient recruitment, adverse events, and protocol development.

STAT 4030: Programming in R

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3010 or STAT 3125

This course in statistical computing uses the R/S-Plus programming environment for data management, and basic statistical analysis. The overall objective of this course is to prepare students to use the R package in practical statistical/quantitative application. Topics covered include object-oriented programming, porting data, general data management, basic statistical analyses, and writing customized user-defined functions.

STAT 4120: Applied Experimental Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3130

Methods for constructing and analyzing designed experiments are the focus of this course. The concepts of experimental unit, randomization, blocking, replication, error reduction and treatment structure are introduced. The design and analysis of completely randomized, randomized complete block, incomplete block, Latin square, split-plot, repeated measures, factorial and fractional factorial designs will be covered. Statistical software, including SPSS, Minitab and SAS will be utilized.

STAT 4125: Design and Analysis of Human Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3130

This course serves as an introduction to epidemiologic methods used to investigate disease outbreaks and the effectiveness of public health interventions. At the end of the course, students are able to design, analyze, and report the results of a simple epidemiologic investigation and interpret literature related to analysis of studies of disease causality and treatment. Students seeking Capstone credit are asked to do further readings related to the theory underlying statistical measures of disease rates. They also are expected to give a presentation and write a paper.

STAT 4210: Applied Regression Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3130

Topics include simple linear regression, multiple regression models, generalized linear model, multicollinearity, qualitative predictor variables, model selection and validation, identifying outliers and influential observations, diagnostics for multicollinearity, and logistic regression and discriminant analysis.

STAT 4310: Statistical Data Mining

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3130 or permission of the instructor.

Data Mining is an information extraction activity whose goal is to discover hidden facts contained in databases, perform prediction and forecasting, and generally improve their performance through interaction with data. The process includes data selection, cleaning, coding, using different statistical,

pattern recognition and machine learning techniques, and reporting and visualization of the generated structures. The course will cover all these issues and will illustrate the whole process by examples of practical applications. The students will use recent SAS Enterprise Miner software.

STAT 4330: Applied Binary Classification

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 4210

Binary Classification is a heavily used concept in statistical modeling. Common applications include credit worthiness and the associated development of a credit risk score, fraud detection, the presence of a disease or the identification of manufacturing units which fail inspection. Students will learn how to use logistic regression, odds, ROC curves, and maximization functions to apply binary classification concepts to real-world datasets. This course will utilize SAS-software and students are expected to have a strong working knowledge of SAS.

STAT 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the instructor, major area committee, and department chair.

Special advanced topics external to regular course offerings.

STAT 4490: Special Topics in Statistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: STAT 3130

Special topics of interest to faculty and students.

Study Abroad

SA 2290: Lower-division Study Abroad

0-9 Credit Hours

Prerequisite: Varies with discipline and subject.

Lower division study abroad course denoting freshman, sophomore level work.

SA 4400: Study Abroad Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair prior to registration.

Available for all disciplines.

SA 4490: Upper-division Study Abroad

0-12 Credit Hours

Prerequisite: Varies with discipline and subject.

Upper division study abroad course denoting junior, senior level work.

Survey

SURV 2110: Introduction to Mapping

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 1113

Introductory class in basic surveying and mapping skills including geographic information systems (GIS). Topics include scales, leveling, horizontal measurements, GPS mapping, topography, map projections, GIS analytical tools, data sources, raster and vector data and software applications. Emphasis will be on small scale mapping.

SURV 2200: Construction Measurements

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: MATH 1113

Use and care of engineers' level, transit and tape; leveling, traversing, stadia, contours, horizontal and vertical field layouts for buildings; reading and interpretation of site survey maps. (No credit for CET or Surveying and Mapping majors.)

SURV 2221: Surveying I

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: EDG 2160 and MATH 1113

Corequisite: SURV 2221L

This course deals with the determination of angles, distances, elevations and horizontal and vertical location using total station and level. Simple horizontal and vertical curves and contouring are covered in this course. This course also introduces the Global Positioning System and coordinate computations.

SURV 2221L: Surveying I Lab

0 Class Hours 3 Laboratory Hours 1 Credit Hours

Prerequisite: EDG 2160 and MATH 1113

Corequisite: SURV 2221

This course deals with the measurement of angles, distances, elevations, horizontal and vertical location using total station and level in the field. This course also covers a topographic survey project.

SURV 3222: Surveying II

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 2221

Route geometry computations and field techniques; automated data collection and reduction for topographic surveys; coordinate computations for intersections; route design project.

SURV 3320: Photogrammetry and Remote Sensing

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 342I or GEOG 3315

The course will focus on the analysis and interpretation of photographic and satellite imagery. Additionally, the course will examine vertical features in orthography; the use of ground control points; and project planning using digital softcopy methods.

SURV 3330: Construction Surveying

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3222

Layout of designed structures from land boundaries, right of way parcels, applications of coordinate geometry, hydrographic surveying.

SURV 342I: Geographic Information Systems I

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 222I

This course provides students with an introduction to the fundamental concepts of: Geographic Information Systems (GIS); spatial data analysis; digital elevation models; and the surveying and mapping components of GIS development. GIS is used in a diverse number of fields, including civil engineering, surveying and city planning. Lectures introduce the theory and framework of GIS, while the labs introduce: the applications; processing; and presentation of geographic and spatial data.

SURV 344I: Vector & Raster Analysis

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 342I

Manipulation of vector and raster data. Use of local, focal, block and zonal statistical functions. Use of coordinates, datums, projections. Development of map topology. Overlay and proximity analysis. Spatial joins and queries. Data storage models

SURV 345I: Terrain Analysis

2 Class Hours 3 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 3320

This course examines the theory and methods of the generation, compilation, analysis, and applications of digital elevation data. Specific topics include GIS, terrain data models, photogrammetry and LiDAR DEM processing, terrain surface modeling, digital terrain analysis, terrain visualization, and watershed delineation. Computer exercises in the generation and processing of DEM using GIS and image processing software packages.

SURV 3500: Applied Hydrology and Hydraulics

3 Class Hours 1 Laboratory Hours 4 Credit Hours

Prerequisite: PHYS 1111 & PHYS 1111L

This course deals with the application of hydrology and hydraulics in small site design. An emphasis is on residential subdivision and small commercial tract design. Note: This course is not available for credit for Engineering majors.

SURV 4110: Geospatial Sciences Practice

1 Class Hours 6 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 3451

A capstone course in the applications of geospatial science technology. Course requires a project developed with an industry partner in applying geospatial science analytical skill, analysis, and mapping

SURV 4410: Surveying Computations and Adjustments

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3222 and MATH 2202

Advanced surveying computations; matrix algebra; computer methods; statistical analysis of error propagation; variance and co-variance; least squares adjustments.

SURV 4415: Geodetic Surveying Methods

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3421

Topics in Geodetic Surveying Methods including traversing, leveling and GPS. Coordinate systems and projects are utilized.

SURV 4420: Remote Sensing

3 Class Hours 4 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3320

This course evaluates remote sensing systems; ground truthing; mapping applications; satellite imagery integration into GIS.

SURV 4422: Geographic Information Systems II

3 Class Hours 3 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3421

Continuation of GIS I; data collection techniques; advanced systems and macro programming.

SURV 4423: Advanced Field Operations

2 Class Hours 6 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3222

Emphasis placed on production surveying; use of codes to develop maps; extensive data collection; computer drafting and plotting.

SURV 4465: Legal Aspects of Land Surveying

4 Class Hours 0 Laboratory Hours 4 Credit Hours

Prerequisite: SURV 3222

Cadastral systems; Georgia laws on surveying and property; boundary survey legal research; writing of legal descriptions; evidence evaluation; US Public Land System.

SURV 4470: Land Development Design

2 Class Hours 1 Laboratory Hours 3 Credit Hours

Prerequisite: SURV 2221 and SURV 2221L and (CE 4703 or SURV 3500)

This course deals with site analysis, subdivision design, drainage design, sewer design and discusses the legal requirements, platting, and CAD computer methods.

SURV 4475: Land Surveying Practice

1 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: SURV 4465

Legal research; boundary analysis; boundary survey project; office procedures; business practice.

SURV 4490: Special Topics in Surveying

1-4 Credit Hours

Prerequisite: Junior or Senior Standing, Consent of the Department Chair

Special Topics offered by the program on a demand basis.

Systems Engineering

ISYE 1000: Introduction to Industrial & Systems Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

This course is an introduction to the industrial and systems engineering profession and discipline through exposure to problems, principles, and practice. Integrated systems approach to problem solving. Foundation of data manipulation and preparation for problem analysis. Development of communication skills, career opportunities, importance of professionalism, ethics, contemporary challenges, lifelong learning, and introduction to the department. How to plan for graduation and other useful items are also included.

ISYE 2600: Applications of Probability

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190

This course covers axioms of probability, continuous and discrete distributions used in engineering, sampling distributions, expectation, conditional probability, central limit theorem, and introduction to Poisson Processes.

ISYE 3100: Systems Reliability & Maintainability

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and Engineering Standing

This course introduces engineering principles and methods used for system reliability and maintainability. Data collection, accelerated testing, FMEA, FTA, system safety, and availability, sustainability are introduced.

ISYE 3120: Contemporary Technological Systems: Design, Analysis, & Architecture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 1000 , ISYE 3100 and Engineering Standing

This course focuses on how system engineering principles are applied to modern technological and infrastructure systems. Defense, space, communication, energy, transportation, aerospace and manufacturing systems are analyzed. Other topics include architecture descriptions, heuristic problem solving, sociotechnical issues and managing complexity.

ISYE 3125: Statistical Quality Control

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and Engineering Standing

A study of the fundamentals of statistical quality control is provided. Topics include statistical process control with emphasis on applications and techniques including control charts for variables and attributes, and process capability. Other topics include scientific sampling fundamentals, acceptance sample by attributes and variables, and reliability. This course includes a Term Project where the student will use the concepts presented in this course to create a quality control plan for an organization that includes an acceptance sampling plan, a control chart, and a warranty recommendation based on reliability theory.

ISYE 3150: Design & Improvement of Quality Processes

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Engineering Standing

Students will learn quality history, philosophies, and the relationship of quality to organizational performance. Emphasis will be given to the management, organization, creation and evaluation of quality systems necessary to assure organizational performance, including basic quality tools, and approaches to quality and process improvement such as Lean and Six Sigma.

ISYE 3200: Human Machine Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 1000 & Engineering Standing

In this course students will study the relationship between humans and the systems they interact with. Students will study human physical and psychological strengths and weaknesses as well as organizational and political issues that influence the effectiveness of Human Machine interactions.

ISYE 3350: Logistics & Supply Chain Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Engineering Status

This course is an analysis of decision making in the current logistics environment and the tools and optimization models needed for finding solutions to problems relating to supply chain design and strategy, transportation, and warehouse management.

ISYE 3398: Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: 90 credit hours and departmental approval

A structured out of the classroom experience in a supervised setting that is related to the student's major and career interests. Practical experience is combined with scholarly research under the guidance of faculty and the internship supervisor. Internship sites must be secured in advance of the semester of the placement and must be approved by the student's advisor and internship coordinator.

ISYE 3400: Deterministic Operations Research

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 3260

This course covers formulation and solution of deterministic models of operations research linear, integer, and dynamic programming. Transportation, assignment, shortest path, and minimum spanning tree problems will be introduced to address various applications in the areas of engineering design, production planning and scheduling, inventory control, transportation and logistics.

ISYE 3407: Six Sigma and Lean Manufacturing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Engineering Standing

An introduction to the application of the six-sigma methodology in the area of process improvement, and an introduction to lean manufacturing concepts. This course includes a Term Project where the student will use the concepts presented in this course to create a quality control plan for an organization that includes an acceptance sampling plan, a control chart, and recommendations for optimizing the overall efficiency of the organization.

ISYE 3450: Human Factors Engineering

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and Engineering Standing

An examination of the principles and practices of work analysis and work measurement. Emphasis is on a variety of analytical tools and the development of the student's skill in the use of a stopwatch. This course includes a Term Project where the student will use the concepts of human factors engineering to create an optimal work area layout that maximizes production output and achieves the quality and safety objectives of the organization and also minimizes employee fatigue. The Term Project will include the creation of an engineering time standard for the optimized process.

ISYE 3600: Statistics with Applications

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and Engineering Standing

This course covers point and interval estimation, hypothesis testing, analysis of variance, and introduction to regression analysis, with applications to engineering problems.

ISYE 380 I: Aerodynamics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 2202 & Engineering Standing

An introduction to aerodynamics; including circulation theory of lift, thin airfoil theory, viscous flow, boundary layer, finite wing theory, and drag in incompressible flow.

ISYE 3802: Aircraft Design & Performance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 380 I and Engineering Standing

Airplane conceptual design principles are developed to meet modern aerodynamics, propulsion, structural, and performance specifications. This course examines the complete airplane design, including specifications, aerodynamic calculations, inboard profile drawing, weight and balance, general arrangement drawing, aerodynamic drag analysis, and complete performance report.

ISYE 3803: Fundamentals of Avionics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 380 I & Engineering Standing

The primary topics of this course are related to the understanding of the principles, theory, and technology of modern avionic systems for both military and civil aircraft. Various subsystems including sensory, fly-by-wire control, display, navigation, air data, autopilots, and flight management are examined individually and as an integrated whole. Both mathematical and conceptual approaches to every subsystem will be taught as well as key considerations, such as flight safety, which undergird their usage and functionality.

ISYE 4200: Engineering Optimization: Stochastic Decision Models

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and ISYE 3400 and Engineering Standing

Modeling and solution of decision problems under uncertainty. Topics include Markov Chains, stochastic programming, stochastic dynamic programming, theory, utility theory and simulation. Computer solution techniques are emphasized

ISYE 4250: Manufacturing & Service Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3450 and Engineering Status

This course is an analysis of decision-making in the current production environment. Topics include learning curves, manufacturing and service processes, waiting line analysis, process design, Lean supply chains, and Theory of Constraints.

ISYE 4320: Advanced Logistics

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3350 and Engineering Standing

This course will expand on the topics covered in the introductory logistics course, leading students to a deeper understanding of logistics and supply chain systems. Special emphasis will be given to current trends in the field, such as global logistics, reverse logistics, nontraditional supply chains, and risk assessment/disaster recovery. Each student will also research in more depth a single topic that interests them.

ISYE 4400: Directed Study

1-4 Variable Credit Hours

Prerequisite: Approval of instructor and department chair.

This course covers special topics and seminars of an advanced nature, external to regular course offerings that allow a student to work individually with an instructor. A Directed Study may include original research projects and/or practicum experiences.

ISYE 4425: Facilities Planning & Material Handling

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3450 and Engineering Standing

This course explores fundamental concepts, theory, and procedures for the study of facilities design and location; physical layout; material flow principles; and material handling. Product design, process planning, and schedule design are integrated through the development of analytical procedures and use of Visio layout planning software to enhance the decision-making process in the design, rationalization and improvement of factory and office layouts. The knowledge learned in this course is integrated with knowledge from selected related courses to develop a laboratory design project by students working in teams.

ISYE 4490: Special Topics

1-4 Variable Credit Hours

Prerequisite: Approval of instructor and department chair and engineering standing

Selected special topics of interest to faculty and students. This course may be taken more than once.

ISYE 4500: System Modeling & Simulation

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: (ISYE 2600 or MATH 2332) and Engineering Standing

This course covers modeling and simulation of systems. Topics include basic simulation and system modeling techniques, random sampling procedures, input analysis, output analysis and system evaluation. Practical implementations using common modeling languages and simulation software are emphasized.

ISYE 480 I: Aircraft Propulsion

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3801 & Engineering Standing

This course involves preliminary design, subject to specifications, of an air-breathing engine for aircraft propulsion. This course discusses cycle calculations, installed performance and engine sizing information. Design and integration of components and support systems are explored. Propeller theory is introduced.

ISYE 4802: Helicopter Theory

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3801 & Engineering Standing

The course is designed for students interested in helicopter theory as an application of large scale complex system. It presents a comprehensive introduction to rotorcraft technology, covering a range of disciplines from design, aerodynamics and propulsion points of view. It teaches what a helicopter engineer or enthusiast needs to know to analyze an existing design or participate in the development of a new one. The course covers all aspects of hover, vertical flight and forward flight.

ISYE 4803: Aeronautics Senior Design Project

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ISYE 3802 & (ISYE 4801 or ISYE 4802) & Engineering Standing

The course focuses on the student completing a project that is related to the design of an aerospace vehicle and demonstrating comprehensive application of the subject matter. The general intent is to demonstrate the students' knowledge of the integrative aspects of the systems engineering process. There is a formal report and a defended oral presentation required before industrial and academic experts.

ISYE 4900: Senior Design Project

1 Class Hours 4 Laboratory Hours 3 Credit Hours

Prerequisite: Engineering Standing

Concurrent: ISYE 4200 and ISYE 4500

The course focuses on the student completing a project that is a comprehensive application of the subject matter in the ISYE curriculum. The general intent of the project is to demonstrate the students' knowledge of the integrative aspects of the systems engineering process. There is a formal report and a defended oral presentation required before industrial and academic experts.

SYE 2100: Systems Analysis and Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Sophomore standing

In this course students will learn techniques for developing, analyzing and portraying design and life cycle systems requirements. Students will learn to use tools and techniques including Quality Function Deployment, IDEF0 Charts, and Enhanced Block Flow Diagrams.

SYE 2290: Special Topics in Systems Engineering

1-4 Credit Hours

Prerequisite: Approval of the instructor and department chair.

The course covers special topics at the intermediate level that are not in the regular course offerings. This course may be taken more than once.

SYE 3320: Engineering Economics and Decision Analysis

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: MATH 1190

This course covers the basic tools used in engineering economic decision making, including discounted cash flow, replacement and timing decisions, depreciation, risk analysis, and pricing mechanisms. Topics may also include an introduction to preferences and utilities, equilibrium concepts, game theory, and incentive compatibility.

SYE 3700: Manufacturing and Production Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SYE 2600 and SYE 3400 (can be taken concurrently) and Engineering Standing

An analysis of decision making in the current production environment and the tools and optimization models needed for finding solutions to problems relating to production planning and scheduling, inventory, and warehouse design.

SYE 3710: Logistics and Supply Chain Systems

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: SYE 2600 and SYE 3400 (can be taken concurrently) and Engineering Standing

An analysis of decision making in the current logistics environment and the tools and optimization models needed for finding solutions to problems relating to supply chain design and strategy, transportation, and warehouse management.

Technical Communication

TCOM 2002: Productivity Tools and Technologies for Technical Communicators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1101

This course introduces students to core productivity tools and technologies used in technical communication. The in-depth features of open source and commercial productivity tools are explored with the goal of creating complex documents that leverage and integrate technical affordances. The course examines on-line workspaces, project management tools, and workflow products common to technical communication through various projects.

TCOM 2010: Technical Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

The course is an introduction to organization, style, and mechanics of technical writing. It includes practice in writing such typical documents as technical descriptions, instructions, proposals, and recommendation reports. Emphasis is placed on incorporating rhetorical theory into planning, organizing, and writing reports; designing visual aids; and editing. Among other assignments, at least one complete technical report is required.

TCOM 2030: Research in Technical Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2002, STAT 1107, and TCOM 2010

The course is an introduction to research methods used by practitioners and scholars in technical communication. Students explore the relationship between theory and research and learn how to design and carry out empirical studies using both quantitative and qualitative methods. Emphasis is placed on the research methods used in workplace settings to design user-centered information products and to test their usefulness and usability.

TCOM 3020: Designing Effective Proposals

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010 and TCOM 2030

The course covers the theory and practice of writing proposals for business, industry, and non-profit

organizations, with emphasis on in-house planning and external grant-seeking proposals. Course covers persuasion theory and strategies while leading students step-by-step through the proposal development process. Students develop skills in gathering and evaluating information, analyzing audiences, collaborating with peers and clients, building arguments, writing clearly and cogently, and designing visually effective documents.

TCOM 3030: Instructional Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 3430

The course introduces and applies systematic instructional design and instructor-led training. Students study a major model of instructional design and apply it to develop and refine a unit of instruction. Students prepare and deliver a training lesson, participate in team instructional design activities, and evaluate the training developed and presented by other students.

TCOM 3045: Fundamentals of Information Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010

The course introduces students to the principles and best practices of effective information design for both print and electronic media. Students apply rhetorical and gestalt principles to an analysis of information products. Students also redesign products to reflect good principles of information design, and they report on the rationale for these redesigns, showing the ways in which design principles have been effectively applied.

TCOM 3070: User Assistance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010

This course explores the concepts and strategies necessary for designing effective user assistance in its many forms. The course emphasizes effective task-oriented design while introducing important industry trends like topic-based authoring, single sourcing, project planning, structured authoring, and DITA basics.

TCOM 3130: Technical Communication: Theory, Ethics, and Practice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2002, TCOM 2010, and TCOM 2030

This course examines a range of theories that have shaped technical communication thought and practice in the twenty-first century. This course also focuses on ethical issues in technical communication through case studies and other readings. The course exposes students to the evolving body of knowledge, including key theorists and practitioners that help form the foundation of the technical communication profession.

TCOM 3145: Designing Social Media Infrastructure

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2030

This course prepares technical communicators to assess and develop governance/oversight procedures, policies, employee training, monitoring and measurement protocols, risk and compliance guidelines, and audit processes for social media. Students select a company and conduct a semester-long case study where they develop critical infrastructure documents for social media.

TCOM 3245: SEO and Analytics for Technical Communicators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010 and DWMA 3400

The course introduces students to the concepts, practices, and implementation of SEO for digital assets (websites, images, files). Working with an existing website, students enhance existing code to leverage SEO and deploy both analytics and webmaster tools to measure and refine SEO tactics and strategies for maximum SERP presence. The course also covers fundamentals of best practices for Section 508 (ADA) compliance with online documents and website coding.

TCOM 3398: Internship

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Junior standing with a 3.0 or better GPA in upper-division courses in major

This course is an opportunity for students to apply principles and techniques of technical communication in a specific organization. Learning is experiential and must supplement, not duplicate, learning in the classroom. The student is responsible for finding an internship, but this program helps in the effort. The student submits a written proposal describing the internship according to program guidelines. Each internship is monitored by the student's advisor.

TCOM 4000: Technical Editing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010

This course examines the responsibilities of an editor including the methods and skills needed to edit various types of technical and scientific products (print and digital) with an emphasis on comprehensive editing. The course also teaches students how to prepare content that clearly and effectively communicates technical information to a wide range of end users. This course prepares students for writing and editing careers in technical communication.

TCOM 4045: Multi-Media for Technical Communicators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2010

This course is a study of the foundations of multi-media including theory, planning, scripting, storyboarding, and production for technical communicators. Projects in the class include developing multimedia-based process/mechanical descriptions, instructions and interactive graphics for product end

users and customers. Students submit research work on the theory of multi-media.

TCOM 4050: Instructional Video for Technical Communicators

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: DWMA 2170

This course addresses the theory and practice of developing "how-to" videos for product end users and customers. Fundamentals of instructional design, including audience analysis, goal analysis, formative and summative evaluation, are applied. Contemporary video technologies are used to generate products that instruct and inform end users/customers. Evaluation of technologies, content transfer, aesthetics and cultural considerations are addressed. Students assess commercially prepared videos and plan for incorporating them in training.

TCOM 4120: Usability Testing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TCOM 2002, TCOM 2010, and TCOM 2030

This course introduces students to UX (User Experience) and usability testing. Included in the course is a review of the relevant research and practical applications of usability testing. Students learn how to develop strategies for planning, conducting, and analyzing a test. In teams, students perform tests using online testing tools, low-fidelity in-person methods, and formal usability lab settings. A final testing report with qualitative and quantitative results is required.

TCOM 4400: Directed Study

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: To be determined by the faculty member teaching the course

This course addresses specific student needs for a specific technical communication topic not covered in the technical communication curriculum.

TCOM 4490: Special Topics in Technical Communication

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Approval of the Technical Communication Coordinator and The DWMA Department Chair

This course is used by faculty to offer topics that are relevant to the study of technical communication not currently in the technical communication curriculum.

Theatre and Performance Studies

TPS 1107: Theatre in Society

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Successful completion of English Learning Support, if required. Successful completion of Mathematics Learning Support or concurrent registration, if required.

This interactive course examines the role of theatre in society through the study of dramatic works and performance events within their cultural and historical contexts. Course assignments promote

understanding of the creative process and develop skills in critical analysis, global perspectives, and collaboration. Attendance is required at live performances, including some events with paid admission.

TPS 1500: Introduction to Theatre Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS interest. Successful completion of all Learning Support English requirements.

An introduction to theatre as a field of study and as an art form.

TPS 1600: Introduction to Performance Studies

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS interest. Successful completion of all Learning Support English requirements.

An introduction to performance as a field of study and as an art form.

TPS 1713: Stagecraft

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: TPS interest.

Theoretical and practical work in theatre crafts including carpentry, properties, costumes, scene painting, stage lighting, and sound. Special attention will be given to safety precautions in each area.

TPS 2202: Introduction to Acting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Not available to declared TPS majors.

This course is an introduction to basic acting techniques. It is designed for non-Theatre and Performance Studies majors or those students who are considering a Theatre and Performance Studies major but are currently undeclared.

TPS 2203: Acting I: Principles of Acting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS interest. Successful completion of all Learning Support English requirements.

The theory and practice of the actor's craft.

TPS 2290: Special Topics

1-12 Variable Credit Hours

Students will explore special topics relevant to the Department of Theatre and Performance Studies.

TPS 2713: Theatre Production

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: TPS 1713

A study of the creative process of theatrical production from concept to performance. This course features the analysis of selected scripts as well as individually-designed production and/or performance

assignments. Theatre and Performance Studies majors must complete TPS 2713 two times for a total of four hours credit.

TPS 3000: Performing Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. TPS 1600

The study of a variety of literary texts through solo and group performance. Students engage course topics through critical reading, written analysis, and embodied performance.

TPS 3050: Applied Performance and Production

0 Class Hours 1 Laboratory Hours 1 Credit Hours

Prerequisite: TPS Major, TPS 2713

This laboratory course focuses on the study, rehearsal, and performance or production for a Department of Theatre and Performance Studies production. This course may be repeated for upper division credit and can be used for applied professional sequence (APS) credit.

TPS 3093: Performing Folktales and Fairy Tales

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 1600 or ENGL 2110

The study of folktales and fairy tales from world oral traditions through storytelling performance.

TPS 3094: Performing Classical Myth

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 1600 or ENGL 2110

The study of Greek and Roman mythology through storytelling performance.

TPS 3193: Performing World Myth

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 1600 or ENGL 2110

The study of world mythology through storytelling performance.

TPS 3194: Performing Personal Narrative

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 1600 or ENGL 2110

The study of personal narratives through performance.

TPS 3200: The Actor's Voice

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 2203 or permission of the instructor.

This course is designed to help performers develop a healthy, expressive and flexible vocal technique

equal to the demands of dramatic performance. Students learn to free their natural voices through physical exercises and by mastering the vocabulary of vocal mechanics. Breathing, posture, relaxation, and articulation are examined as key elements of voice and speech production.

TPS 3213: Acting for the Camera

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3223

An intermediate acting course applying acting techniques to the special demands of film and television.

TPS 3223: Acting II: Intermediate Acting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, a grade of "B" or better in TPS 2203

An intermediate acting course applying and advancing the principles of Acting I to intermediate level stage challenges.

TPS 3243: Acting III: Acting Styles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major and TPS 2203 or TPS 3223

*This course explores advanced topics in the art of stage acting. Emphasis is on period and genre styles. Theoretical studies will be combined with the performance of selected scenes and critical evaluations of peer and professional work. *This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.*

TPS 3320: Musical Theatre Performance: Applied Voice

0 Class Hours 1 Laboratory Hours 1 (may be elected as 0 hours after taken twice) Credit Hours

Prerequisite: Entrance by audition to Musical Theatre Ensemble.

Advanced practice and study in the craft and theory of musical theatre performance. Work will culminate each semester in either a production or a juried recital. May be repeated for credit up to six times.

TPS 3398: Internship

1-9 Credit Hours

Prerequisite: Approval of the department chair.

A supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.

TPS 3400: Performance Composition

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. TPS 1600 or permission of the instructor.

Course examines and applies various approaches for composing live performance events. Additionally, students research and analyze a wide range of performance texts as inspiration for composing and

mounting their own performances. Finally, the course culminates in a final presentation of student works.

TPS 3403: Play Analysis for Production

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 1500

Textual analysis of playscripts, with an emphasis on the perspective of the practitioner of theatre. A preparatory course for the history of theatre and drama sequence.

TPS 3493: Performance Art

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 1600 or ENGL 2110 or DANC 4500 or permission of the instructor/department.

History, theories, and practice of performance art from futurism to the present. Emphasis is on the creation and performance of image, auteur approaches to literary, mythic, visual art, and personal sources, and the writing and staging of performance pieces.

TPS 3500: Dramaturgy

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. TPS 3403

Close study of performance texts and source material, with an emphasis on dramaturgical praxis, including an overview of the history/theory of the dramaturg.

TPS 3600: Performing Culture

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. TPS 1600

The study of the forms and functions of cultural performance practices. Students engage course topics through critical reading, written analysis, original fieldwork, and embodied performance.

TPS 3700: Music Theory for Musical Theatre

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Corequisite: TPS 1500.

Music sight-reading skills and aural techniques specifically tailored for the musical theatre performer are the focus of this course. Students will apply these skills through practical application using examples from musical theatre literature.

TPS 3703: Musical Theatre History and Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. and ENGL 1102

This course is an introduction to musical theatre which surveys the major shows in musical theatre literature, through the study of the plots, scores, characters, and songs of the shows. Students explore

the genre's place and function in theatre history as both an art form and popular entertainment and its influence on culture in general.

TPS 3713: Acting in Musical Theatre

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: TPS 2203 and TPS 4015

This course provides students the opportunity to develop an effective acting technique for the musical stage. Through in-class exercises and the study of the scores and libretti from major shows in the repertoire, students will develop performance techniques particular to the musical theatre genre and an appreciation of its diverse styles.

TPS 3813: Visual Imagination

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major. Completion of 24 hours.

A course in the visual aspects of the art of theatre that focuses on the principles, the elements and the history and current practice of visual design for the theatre.

TPS 3815: Makeup Design and Application for the Performer

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

This course introduces the student to two-dimensional stage makeup, focusing on an understanding of facial structure, a proficiency in basic makeup concepts and application procedures, and a knowledge of the role of makeup as a critical component in a complete performance.

TPS 3820: Scene Painting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major

This course provides students with fundamentals in painting for the theatre, which includes scene painting material, tools, methods, processes, and techniques. It consists of instructional talks, demonstrations, hands-on experience and rationalization.

TPS 3823: Design Skills

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

Basic design skills including drafting, sketching and rendering. Offered in versions oriented specifically toward set design or costume design in alternating years.

TPS 3853: Period Styles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

An examination of the history and interrelationships between dress, architecture and the visual arts as

they relate to the field of theatrical design.

TPS 4010: Storytelling Practicum

2 Class Hours 0 Laboratory Hours 2 Credit Hours

Prerequisite: TPS 1600 and permission of the instructor. Audition required.

Advanced study of the methods and practice of storytelling as a performing art. Students develop a repertoire of stories suitable for various audiences and occasions. Off-campus and out-of-class performances comprise a major required component of the course.

Notes: May be taken three times for a total of 6 credit hours.

TPS 4015: Musical Theatre Techniques

0 Class Hours 2 Laboratory Hours 1 Credit Hours

Prerequisite: Declared TPS major

This course focuses on basic skills in musical theatre singing styles for entry-level students.

TPS 4020: Musical Theatre Ensemble

1 Class Hours 0 Laboratory Hours 1 Credit Hours

Prerequisite: TPS 4015 and entrance by audition to musical theatre ensemble.

Advanced practice and study in the craft and theory of musical theatre performance. Work will culminate each semester in either a production or a juried recital. May be repeated for credit; students who have taken the course twice may elect to take the course for 0 credit hours.

TPS 4030: Actor's Studio

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: Audition and/or the approval of the instructor.

This practical-based course focuses on advanced practice and study in the craft and theory of acting. Students explore a variety of acting styles through intensive scene work and exercises. Actor's Studio may be repeated for credit up to four times; students who have taken the course twice may elect to take the course for 0 credit hours.

TPS 4040: Stage Combat

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 2203

This is an introductory course in Stage Combat. Students will learn the skills necessary to safely and dynamically create the illusion of violence on stage.

TPS 4050: Advanced Applied Performance and Production

0 Class Hours 3 Laboratory Hours 2 Credit Hours

Prerequisite: TPS 2713

This laboratory course focuses on advanced study, rehearsal, and performance or production for a

Department of Theatre and Performance Studies production. This course may be repeated for upper-division credit and may be used for applied professional sequence credit.

TPS 4243: Audition Practicum

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 3223

This course prepares students for the major forms of auditions they will encounter in the field of acting.

TPS 4313: Principles of Directing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3403

Students will learn the fundamentals of directing for the stage. Theoretical studies will be combined with the direction of selected scenes and observation of working directors. Emphasis is on 20th century realism.

TPS 4323: Directing Styles

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3403

*Students will learn the fundamentals of directing for the stage. Emphasis is on non-realistic period and genre styles. Theoretical studies will be combined with the direction of selected scenes and observation of working directors. *This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.*

TPS 4333: Adapting and Staging Literary Texts

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 3000 or permission of the instructor/department.

Aesthetics, methods, and practice in presentational modes of group performance. Emphasis on the selection, adaptation, and staging of poetic, narrative, and nonfiction texts.

TPS 4400: Directed Study

1-3 Credit Hours

Prerequisite: Approval of the instructor and department chair.

Selected topics of an advanced nature, which may include original research projects.

TPS 4490: Special Topics

1-3 Credit Hours

Prerequisite: Approval of the instructor and departmental chair.

Topics of special interest to students and faculty.

Notes: This course may be repeated more than once for credit provided that the course content differs entirely from the previous offering.

TPS 4513: History and Theory I: Ancient through Renaissance Theatre and Performance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3000 and TPS 3403

Studies in the history, theory, and literature of world theatre and performance traditions from ancient times through the Renaissance.

TPS 4523: History and Theory II: Neoclassical through Romantic Theatre and Performance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3000 and TPS 3403

Studies in the history, theory, and literature of world theatre and performance traditions from the Neoclassical Age through early Modernism.

TPS 4533: History and Theory III: Victorian through Contemporary Theatre and Performance

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 3403 and either TPS 3493 or TPS 3600

This course centers on studies in the history, theory, and literature of world theatre and performance traditions from the Victorian period through the contemporary era.

TPS 4813: Scene Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

Building blocks for scene design with an emphasis on transforming written text into three-dimensional visual language, and working through fundamental scene design problems.

TPS 4823: Lighting Design for the Stage

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

Study of lighting design for the stage, including study of lighting instruments and control.

TPS 4833: Costume Design

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS Major, TPS 3813

Study of principles, methods and processes for costume design for the stage.

TPS 4999: Senior Seminar: The Scholar Artist

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: TPS 3600 or TPS 3493; and one of the following: TPS 4513, TPS 4523, or TPS 4533

This capstone course investigates the roles creativity, scholarship, and artistic identity play in personal and professional lives via mission statements, career goals, and action steps. Projects include discipline-specific design, development, and integration of self-marketing tools into presentations for entering the professional world.

Writing

WRIT 3000: Introduction to Creative Writing Genres

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a multi-genre creative writing survey incorporating the study of three genres from the following list: short fiction, poetry, creative nonfiction, playwriting, and screenplay writing. Pairing creativity with technique, this content-based course introduces students to concepts, approaches, and methods. As students develop a portfolio of work, they learn to contextualize their own writing with writings from celebrated authors by completing short critical commentaries. This course introduces students to the workshop format.

WRIT 3100: Poetry Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a workshop approach to poetry writing that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

WRIT 3109: Careers in Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course exposes students from a variety of backgrounds to various careers in writing. (Students need not be English majors.) Students will analyze and create a wide variety of professional texts ranging from technical, business, and governmental documents to medical, community-based, and web-based documents.

WRIT 3110: Playwriting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a workshop approach to playwriting that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

WRIT 3111: Professional Editing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This is a course in editing as a practice and a profession. It focuses on editorial roles and responsibilities and introduces students to the skills, principles, and methods of editing. Course assignments provide ample practice in applying the techniques of editing, including editing for grammar, punctuation, and style. This course prepares students for careers in publishing and writing.

WRIT 3120: Fiction Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300

This course is a workshop approach to fiction writing that emphasizes original writing, revision, and analysis and response from classmates. Some attention is given to the work of established writers as models.

WRIT 3130: Literary Nonfiction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: One of the following courses: ENGL 2110, ENGL 2111, ENGL 2112, ENGL 2120, ENGL 2121, ENGL 2122, ENGL 2130, ENGL 2131, ENGL 2132, or ENGL 2300 .

This course is a study and practice of selected genres of literary nonfiction. The course features extensive nonfiction writing and revision, workshop discussion, and readings in major authors of literary nonfiction.

WRIT 3140: Writing in the Workplace

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course emphasizes strategies for producing effective documents in a variety of professional contexts. Students gain practice with common workplace forms as they master writing clearly and with the needs and expectations of their audiences in mind. This course is particularly valuable to students preparing for careers in business, government, and nonprofit organizations.

WRIT 3150: Topics in Digital Rhetoric

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course explores rhetorical practices in electronic environments and provides an examination of major works on digital reading, writing, and culture framed by contemporary rhetorical theories. Students plan, design, and compose a variety of rhetorically effective digital texts. This course can be taken more than once provided the course content differs from the previous offering.

WRIT 3160: Argumentative Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course focuses on the study and practice of argumentative writing. It includes the study of current models of effective arguments and the process of forming written arguments. It features extensive writing and revision, workshop discussion, and readings of classical and contemporary arguments. The course can be taken more than once provided the course content differs entirely from the previous offering.

Notes: These courses can be taken more than once provided the course content differs entirely from the previous offering.

WRIT 3170: Environmental Writing and Literature

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: ENGL 1102

This course is intended for students interested in major works of environmental literature and for those who wish to think and write about the interconnections between humans and the nonhuman world. The course studies pastoral literature, nature writing, and science writing, and provides instruction in the writing of environmental nonfiction prose for aesthetic, expressive, intellectual, and instrumental purposes.

Notes: This course can be taken more than once if content differs entirely from a previous offering.

WRIT 4100: Advanced Poetry Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WRIT 3100

Building on the skills learned in WRIT 3100, this course offers advanced workshop experiences for practiced writers of poetry and includes lecture and discussion of contemporary approaches to poetics and the work of contemporary poets. This workshop approach stresses development and integration of all technical and artistic elements of poetry writing.

WRIT 4110: Advanced Playwriting

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WRIT 3110

This advanced workshop stresses development and integration of all technical and artistic elements of playwriting. Some readings from the work of established writers are included.

WRIT 4120: Advanced Fiction Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WRIT 3120

Building on the skills learned in WRIT 3120, this course offers advanced workshop experiences for practiced writers of fiction and includes lecture and discussion of contemporary approaches to fiction writing and the work of contemporary fiction writers. This workshop approach stresses development and integration of all technical and artistic elements of fiction writing.

WRIT 4125: Advanced Techniques in Fiction Writing

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WRIT 4120 or permission of the instructor.

Advanced Techniques in Fiction Writing is a seminar-workshop that offers in-depth study of a topic in fiction writing. It builds on skills learned in WRIT 4120, but differs from this workshop in that it focuses on a particular topic rather than student-generated manuscripts. For example, students may study a specific author's use of a technique or the use of a technique in a subgenre as a model for their own writing.

WRIT 4130: Advanced Creative Nonfiction

3 Class Hours 0 Laboratory Hours 3 Credit Hours

Prerequisite: WRIT 3130

This course offers advanced workshop experiences for practiced writers of creative nonfiction and includes lecture and discussion of contemporary approaches to writing creative nonfiction and the work of contemporary creative nonfiction writers. This workshop approach stresses development and integration of all technical and artistic elements of writing creative nonfiction.

Other Courses

GFA 1000: Introduction to On-Set Film Production

6 Class Hours 0 Laboratory Hours 6 Credit Hours

This course provides students with a basic set of skills and insights sufficient to be integrated onto the sets of working film productions. The course is offered in collaboration with the Georgia Film Academy.

GFA 2000: On-Set Internship

0 Class Hours 6 Laboratory Hours 6 Credit Hours

Prerequisite: GFA 1000

This internship course provides students with basic on-set film production experience, knowledge and experience with film-industry standards, organizational structure, professional equipment and on-set procedures by giving students hands-on experience on the sets and offices of working film productions and businesses.

Faculty

Abaza, Hussein, F, Associate Professor of Construction Management, Ph.D., Environmental Design and Planning, 2002, Bachelor of Architecture, Architecture, 1987, M.S., Architecture, 1993

Abbott-Lyon, Heather, L, Assistant Professor of Chemistry, Ph.D., Chemistry, 2007, B.S., Chemistry, 2002, B.S., Classical Studies, 2002

Abernathy, John, L, Assistant Professor of Accounting, Ph.D., Accounting, 2010, M.Acct., Accounting, 1997, B.S., Accounting, 1996

Achar, Premila, N, Associate Professor of Biology, Ph.D., Applied Botany, 1989, M.Phil., Seed Pathology, 1983, M.S., Botany, 1982, B.S., Botany, 1980

Ackert, Lucy, F, Professor of Finance, Ph.D., Economics, 1990, M.A., Economics, 1984, B.S.B.A., Economics, 1982

Adams, Erin. C, Assistant Professor of Social Science Education, Ph.D., Educational Theory and Practice 2016, EDS, Middle School Education 2010, MED, Social Studies Education 2008, BS, Social Science Education 2006

Adams, Lisa, G, Associate Professor of Biology Education, Ph.D., Biology, 1993, M.S., Biology, Systematics and Evolutionary Biology, 1988, B.S., Biology, 1985

Adams, Megan, G, Assistant Professor of Reading Education, Ph.D., Language and Literacy Education, 2012, M.A.T., Secondary English Education, 2006, A.B., English, 2004

Adebayo, Akanmu, G, Director of the Center for Conflict Management and Professor of History, Ph.D., History, 1986, M.A., History, 1982, B.A., History, 1979

Adhikari, Dhruba, R, Assistant Professor of Mathematics, Ph.D., Mathematics, 2007, M.S., Mathematics, 1996, B.S., Science, 1994

Aguilar, Rodolfo, Limited Term Assistant Professor of American Studies, Ph.D., American Studies 2014, B.A., Latin American and Latino Studies 2007

Akerman, Mary, S, Lecturer of Classical Guitar, M.F.A., Music, 1978, B.MUS., Music Performance, 1976

Akins, Edwin, E, Associate Professor of Architecture, M.ARCH, Architecture, 1996, B.S., Architecture, 1994

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Alamilla, Saul, G, Assistant Professor of Psychology, Ph.D., Counseling/Clinical/School Psychology, 2009, M.A., Counseling Psychology, 2006, M.S., Counseling, Marriage and Family Therapy, 2004, B.A., Sociology, 2002

Faculty

Albrecht, Eric, A, Associate Professor of Biology, Ph.D., Biological Sciences, 2000, B.S., Biology, 1993

Alexander, Chris, W, Assistant Professor of Chemistry and Biochemistry, Ph.D., Chemistry, 1993, B.S., Chemistry, 1988

Ali, Radwan, M, Associate Professor of Information Systems, Ph.D., Instructional Technology, 2006, M.B.A., Business Information Systems Management, 1998, B.S., Computer Science, 1986

Allen, Judy, B, Senior Lecturer of Sociology, J.D., Law, 1992, M.A., Sociology, 1988, B.S., Law Enforcement, 1987

Allison, Audrey, W, Associate Professor of Communication, Ph.D., Speech Communication, 1999, M.S., Home Economics Communication, 1987, B.S., Journalism, 1983

Alme, Karyn, A, Lecturer of Environmental Science, M.S., Geology, 2001, B.S., Geology, 1994

Amason, Janeen, S, Assistant Professor of Nursing, Ph.D., Nursing, 2013, M.S.N., Adult Health, 1995, B.S.N., Nursing, 1991

Amlaner, Charles, J, Vice President for Research and Professor of Biology, D.Phil., Biological and Agricultural Sciences, 1983, M.A., Biology, 1976, B.S., Biophysics, 1974

An, Sohyun, Associate Professor of Social Studies Education, Ph.D., Curriculum and Instruction, 2009, M.A., Social Studies, 2001, B.A., Social Studies Education, 1999

Anderson, Kami, J, Co-Director of the Honors Program Marietta Campus and Associate Professor of Communication, Ph.D., Communication and Culture, 2007, M.A., Interdisciplinary Studies, 2000, B.A., Spanish, 1996

Anderson, Mark, R, Dean of the College of Science and Mathematics and Professor of Chemistry, Ph.D., Chemistry, 1987, B.S., Chemistry, 1983

Ansley, Kelly, R, Research and Instruction Librarian and Librarian Assistant Professor of Library Science, M.L.I.S., Library and Information Science, 2009, B.A., History, 2006

Ao, Yumin, Lecturer of Chinese, Ph.D., Chinese Language and Culture, 2011, M.A., Comparative Literature and World Literature, 2004

Ariail, Donald, L, Professor of Accounting, D.B.A., Business Administration, 2005, MPACC, Accountancy, 1976, B.B.A., Finance, 1970

Armour Hileman, Victoria, L, Lecturer of English, Ph.D., English, 1988, M.A., English, 1982, M.A., Hebrew Letters, 2006, M.F.A., English, 1986, B.A., English/Creative Writing, 1979, B.A., Music, 1979

Arnett, E, J, Assistant Professor of Professional Writing, Ph.D., Technical Communication and Rhetoric, 2008, M.A., Technical Communication, 2003, B.A., Psychology, 1996

Artese, Brian, P, Lecturer of English, Ph.D., English, 2004, M.A., English Literature, 1996, B.A., English, 1992

Asgill, Austin, B, Chair of the Department of Electrical and Computer Engineering Technology and Professor of Electrical Engineering Technology, Ph.D., Electrical Engineering, 1990, M.B.A., Business Administration, 1999, M.S., Electrical Engineering, 1982, B.E., Electrical Engineering, 1979

Askildson, Lance, R, Vice Provost for Global Affairs and Chief International Officer and Associate Professor of English, Ph.D., Second Language Acquisition and Teaching, 2008

Atiqullah, Mir, M, Professor of Mechanical Engineering, Ph.D., Mechanical Engineering, 1996, M.S.M.E., Mechanical Engineering, 1990, B.S., Mechanical Engineering, 1976

Atkins, Robert, W, Professor of Industrial Engineering, M.B.A., Marketing, 1985, B.S., Industrial Engineering, 1972

Aust, Charles, F, Professor of Communication, Ph.D., Mass Communication, 1993, M.A., Telecommunications, 1985, B.S., Psychology, 1975

Aust, Philip, J, CHSS Distance Education Online Coordinator for Communication and Associate Professor of Communication, Ph.D., Organizational/Group and Interpersonal Communication, 2000, M.A., Speech Communication, 1993, B.A., Theology, 1990

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Aycock, Laurie, D, Undergraduate Science and Government Documents Librarian and Librarian Assistant Professor of Library Science, M.L.I.S., Library and Information Science, 2011, B.S., Biology, 1993

Azriel, Joshua, N, Director of Journalism and Citizen Media Program and Associate Professor of Communication, Ph.D., Mass Communication, 2006, M.A., Political Science, 1999, B.A., Political Science, 1996

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Baker, Virginia, M, Associate Dean for Assessment and Undergraduate Programs and Professor of Decision Sciences, Ph.D., Business Administration, 1987, B.S.B.A., Quantitative Methods, 1981

Baker, William, E, Interim Executive Director of the Burruss Institute and Assistant Professor of Political Science, Ph.D., Public Administration, 2001, M.A., Urban Affairs, 1978, B.A., Social and Behavioral Sciences, 1972

Ball, Thomas, R, Associate Dean of Engineering and Assistant Professor of Apparel and Textile, M.B.A., Management, 1975, B.A., Business Administration, 1970

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Barney, Bradley, J, Assistant Professor of Statistics, Ph.D., Statistics, 2011, M.S., Statistics, 2007, B.A., Economics, 2003

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