

Information Technology

Choose ONE concentration. Four of the five courses must be completed from the chosen concentration. The fifth course may be from the same or any concentration. Alternative options: IT 4490 – Special Topics, IT 4493 – Research, or CSE 4983 – Computing Internship

1. **Enterprise Systems** – This is the most generic/well-rounded concentration option. Several courses build upon concepts introduced in the major required courses to provide additional depth into that field.

Course		Prerequisites	
IT 3503	Foundations of Health IT	ENGL 1102	3
IT 4153	Advanced Database	CSE 3153 or CS 3410	3
IT 4333	Network Configuration & Administration	IT 4323 or ECET 3400 or CS 4622	3
IT 4673	Virtual IT Systems	(IT 3423 or CS 3502), (CSE 3153 or CS 3410, & IT 4323)	3
IT 4403	Advanced Web and Mobil Applications	IT 3203	3

2. **Cyber Operations Security** – This concentration goes into more specific areas of information security already introduced in the IT 4823 course. It does not go into the same specifics of how networks work as the CS Cyber and Network Security concentration does. The CS concentration looks at things like network protocols and how to code them whereas IT is understanding how to use networks and systems, protocols, and how to keep information safe.

Course		Prerequisites	
IT 4833	Wireless Security	IT 4323 or ECET 3400 or CS 4622	3
IT 4843	Ethical Hacking for Effective Defense	IT 4323 or ECET 3400 or CS 4622	3
IT 4853	Computer Forensics	IT 4323 or ECET 3400 or CS 4622	3
IT 4883	Infrastructure Defense	IT 4323 or ECET 3400 or CS 4622	3
IT 4893	Internet of Things: Applications & Security	IT 4823 & IT 4323	3
IT 4863	Web & Mobile Application Security	IT 3203	3

3. **Data Analytics and Technology** – This concentration does not go into the same depth as the CS Data Science concentration either, but instead teaches the different systems and methods for how to go about managing and using big data systems. Also, this concentration teaches students how to utilize business intelligence concepts when working with users/clients, and various data visualization techniques. Applied Data Driven Solutions is the process of getting data and creating solutions to issues in organizations.

Course		Prerequisites	
IT 3703	Introduction to Data Analytics & Technology	IT 3123 & CSE 3153* or CS 3410*	3
IT 4713	Business Intelligence Systems	IT 3703	3
IT 4733	Big Data System Administration	IT 3703	3
IT 4773	Machine Learning for Enterprise Applications	IT 3703	3
IT 4793	Applied Data Driven Solutions	IT 3703	3

**Can be done concurrently with course*

Notes:

- It is best to declare a concentration by the end of your freshman year/beginning of your sophomore year.
- When you have made your decision, you will declare your concentration in Owl Express:
 - o Owl Express -> Student Records -> “Declare or Change Major/Minor”
- Concentration courses are seasonal, meaning they are not offered every semester. (i.e. a course may only be offered in the fall semester and not the spring).
- Utilize the [Course Forecast](#) for a tentative prediction of when courses will be offered.
- Meet with your advisor if you have any questions!