

Master of Science in Data Science & Analytics

Catalog Year: 2024 Total Degree Credit hours: 36

The MSAS program is a 36 semester-hour applied graduate program designed to meet the needs of business, industry and government. The program is intended for professionals or students with undergraduate degrees in the sciences, engineering, or business.

Required Courses (12 Credit Hours)

Prerequisites

STAT 7010: Mathematical Statistics I	STAT 7220 and STAT 7210	3	
STAT 7020: Statistical Computing and Simulation	Admission to Program	3	
STAT 7100: Statistical Methods	Admission to Program	3	
STAT 7210: Applied Regression Analysis	STAT 7100 and STAT 7020	3	

Select one from the following (3 Credit Hours)

Prerequisites

STAT 7220: Applied Experimental Design	STAT 7100 and STAT 7020	3	
STAT 7125: Design and Analysis of Human Studies	STAT 7020 and STAT 7210	3	

Select at least two from the following (6 Credit Hours)

Prerequisites

STAT 7125: Design and Analysis of Human Studies (if not selected above)	STAT 7020 and STAT 7210	3	
STAT 7220: Applied Experimental Design (if not selected above)	STAT 7100 and STAT 7020	3	
STAT 7235: Applied Longitudinal Data Analysis	STAT 7210	3	
STAT 7310: Applied Categorical Data Analysis	STAT 7210	3	
STAT 8220: Time Series Forecasting	STAT 7020 and STAT 7210	3	
STAT 8240: Data Mining I	Admission to Program	3	
STAT 8320: Applied Multivariate Data Analysis	STAT 7220 and STAT 7210	3	
STAT 8330: Applied Binary Classification	STAT 7210	3	

Required Project (6 to 9 Credit Hours)

Prerequisites

STAT 7916: Cooperative Education	Permission of Program Director	1-3	
STAT 7918: Internship	Permission of Program Director	1-3	
STAT 7940: Applied Analysis Project	Permission of Program Director	1-9	

Minimum of 6 credit hours are required. Students can take any of the courses here multiple times for credits. But maximally 9 credit hours can be applied for the degree. A written report (a project proposal, a project status update, or a final project report) is required by the end of each semester when any amount of the credits are taken.

Requirements continued on back

Additional program information can be found at https://datascience.kennesaw.edu/degrees-programs/master-degree.php

Electives (6 to 9 Credit Hours)

Any other 7XXX or 8XXX courses with a DATA or STAT prefix may be used to complete the degree requirements. Courses from other graduate programs (IT, CS, SWE, IS) may be used with approval of the graduate program coordinator.

Prerequisites

	Prerequisites		
STAT 7110: Quality Control and Process Improvement	STAT 7100 and STAT 7020	3	
STAT 7120: Advanced Programming in SAS	STAT 7100 and STAT 7020	3	
STAT 7130: Programming in R	STAT 7020	3	
STAT 7140: Six Sigma Problem Solving	None	3	
STAT 7240: Applied Data Mining	STAT 7210 or IT 7103	3	
STAT 7340: Social Network Analysis	STAT 8240 and STAT 7120	3	
STAT 7350: Structural Equation Modeling	STAT 7100	3	
STAT 7370: Applied Affinity Analysis	STAT 8250 and STAT 7120	3	
STAT 7390: Missing Data and Imputation	STAT 7210 and STAT 7120	3	
STAT 7399: Design and Analysis of Massive Survey Data	STAT 8240 & STAT 7120	3	
STAT 7450: Multilevel Statistical Models	STAT 7100 & STAT 7210	3	
STAT 7900: Special Topics	STAT 7020 and STAT 7100, or approval of the Program Director.	1-3	
STAT 7916: Cooperative Education	Permission	1-3	
STAT 7918: Internship	Permission	1-3	
STAT 7950: Directed Study	Permission	3	
STAT 8250: Data Mining II	STAT 8240	3	
STAT 8235: Advanced Longitudinal Data Analysis	STAT 8250 or permission		
STAT 8350: Structural Equation Modeling	Admission to a KSU PhD program	3	
STAT 8450: Multilevel Statistical Modeling	Admission to a KSU PhD program	3	