Master of Science - Analytics

Degree Awarded: Master of Science

Requirements for the Major: 30-33 hours

Data analysis plays a crucial role in solving organizational challenges and making effective business decisions. The graduate degree in Analytics is designed for students interested in mastering the process of making data-informed decisions. By using data analysis, optimization techniques, and modeling tools, students have the opportunity to make sense of big data across multiple functions of the business. In order to improve an organization's performance, students will work with a vast amount of Big Data to help discover trends and make predictions, and then make strategic, data-driven decisions.

The MS in Analytics program consists of 30-33 credit hours. The courses are designed to provide a well-rounded understanding of the field. Students will learn evidence-based data gathering, data modeling, and quantitative analysis, as well as how to implement these tools to provide businesses with competitive advantages. Students gain skills to work in business intelligence, financial analysis, healthcare, marketing, and consulting.

Prerequisite courses for the major:

- Students without statistics background need to take a total of 33 credits as follows:
  – STAT-241/BSAD-239/DATAXXX: Statistical Analysis of Learning
  – All the core courses
  – Two of the elective courses
- Students with a statistics background need to take a total of 30 credits as follows:
  – All the core courses
  – Two of the elective courses

Analytics Core Courses

	DATA 500	Analytical Programming with Python	3
	DATA 501	Introduction to Analytics and Decision Making	3
	DATA 502	Visualization & Communication	3
	DATA 503	Data Leadership & Quantitative Communication	3
	DATA 504	AI for everyone	3
	DATA 510	Predictive Analytics	3
	DATA 511	Prescriptive Analytics	3
	DATA 515	Analytics Capstone	3

Electives- take 6 credits from the following.

	DATA-505	Data Management	3
	DATA-533	Finance Analytics	3
	DATA-535	Marketing Analytics	3
	DATA-537	Sports Analytics	3
	DATA-539	Healthcare Analytics	3
	DATA 547	Applied Deep Learning I	3
	DATA 548	Applied Deep Learning II	3

	DATA 549	Intro to Natural Language Processes	3
	DATA 550	Intro to MLOps	3