BS-MS: DATA SCIENCE

Student Learning Outcomes

Students graduating from this program will:

- develop solutions for advanced problems using appropriate skills and knowledge in data science;
- recognize and apply state of the art techniques and tools in the data science field;
- work effectively in teams;
- demonstrate advanced knowledge in data science.

Admission requirements

- 3.0 undergraduate cumulative GPA and
- Undergraduate degree in Computer Science or Information Technology

Code	Title	Credits
Core Requirements		
COMP-SCI 5530	Principles of Data Science	3
COMP-SCI 5540	Principles of Big Data Management	3
COMP-SCI 5565	Introduction to Machine Learning	3
COMP-SCI 5567	Deep Learning	3
COMP-SCI 5588	Data Science Capstone	3
Electives:		**15**
COMP-SCI 5525	Cloud Computing	
COMP-SCI 5542	Big Data Analytics and Applications	
COMP-SCI 5551	Advanced Software Engineering	
COMP-SCI 5560	Knowledge Discovery and Management	
COMP-SCI 5573	Information Security and Assurance	
COMP-SCI 5582	Computer Vision	
COMP-SCI 5590	Special Topics	
COMP-SCI 5597	Directed Readings	
MATH 5545	Mathematical Methods in Data Science	
MIS 5507	Business Analytics and Statistics	
MIS 5557	Intermediate Business Analytics	
MKT 5566	Predictive Analytics Using R	
STAT 5501	Statistical Design Of Experiments	
STAT 5561	Time Series Analysis	
Total Credits		**30**

Five Year Program Sample

Students should follow the sample program as listed for the BS in Data Science degree and should apply for the graduate degree prior to enrolling for the fall semester of their fourth year. During their fifth year, they could enroll in 12 credit hours each semester or make use of the summer semester between their fourth and fifth year to take a course or special project, if offered.

For additional details, please contact our Department by e-mail (sse@umkc.edu).