MS in Mathematical Data Science

Admission

Students will be admitted to full graduate standing in the mathematical data science program if they have the equivalent of an undergraduate major in mathematics, have a grade point average of at least 3.000 in mathematics and computer sciences courses, and meet Graduate School admission requirements. Students may be admitted on a conditional basis if they do not have all the prerequisite coursework.

Program Requirements

To complete the MS in mathematical data science degree, students must earn 30 credit hours from the following list of courses:

Course	Title	Hours
Six Required Courses		
MATH 746	Introduction to Data Analytics	3
BSAN 775	Introduction to Business Analytics	3
CS 746	Perspectives on Data Science	3
CS 770	Machine Learning	3
MATH 553	Mathematical Models	3
or MATH 657	Optimization Theory	
MATH 802	Data Analytics Capstone	3
Statistical Electives		
Select two of the following courses		6
STAT 763	Applied Regression Analysis	
STAT 764	Analysis of Variance	
STAT 775	Applied Statistical Methods I	
STAT 776	Applied Statistical Methods II	
Computing Elective		
Select one of the following courses		3
STAT 774	Statistical Computing I	
MATH 751	Numerical Linear Algebra	
PHYS 730	Computational Methods for Physics	
CS 560	Design and Analysis of Algorithms	
Other Elective		
Select one of the following courses		3
STAT 701	Matrix Theory	
CS 665	Introduction to Database Systems	
MIS 600	Database Management Systems	
IME 780AN	Big Data Analytics in Engineering	
BSAN 875	Prescriptive Analytics with Python	
Total Credit Hours		**30**

Applied Learning

Students in the MS in mathematical data science are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by taking MATH 802 Data Analytics Capstone.