

Master of Science in Data Science Engineering

Master of Science in Data Science and Engineering Degree Requirements

The MS degree in Data Science and Engineering program is a course-based program that requires a total of 10 courses (30 SCH). The program is designed to have 15 SCH required courses including 6 SCH core math courses and 9 SCH core data science and engineering courses, 6 SCH prescribed technical elective courses, and 9 SCH free elective courses.

Required Core Math Courses		6
GNEG 5304	Engineering Probability and Statistics	
GNEG 5302	Operations Research	
or GNEG 5306	Engineering Analysis I	
or GNEG 5307	Engineering Analysis II	
or GNEG 5313	Engineering Numerical Methods	
Required Core Data Science and Engineering Courses		9
GNEG 5315	Data Ethics	
ELEG 6316	Statistical Learning for Big Data	
ELEG 6318	Deep Learning	
Prescribed Technical Elective Courses (Choose two)		6
COMP 5314	Advanced Database Management System	
COMP 5315	Design and Analysis of Algorithms	
COMP 5316	Artificial Intelligence	
COMP 5317	Computer Vision	
COMP 5326	Machine Learning	
COMP 5327	Data Mining	
COMP 5328	Natural Language Processing	
COMP 5329	Text Mining	
CINS 5317	Information Retrieval	
ELEG 6311	Computer Architecture & Advanced Logic Design	
ELEG 6312	The Internet: Design and Implementation	
ELEG 6315	Information Networks	
ELEG 6320	Wireless Networks	
ELEG 6331	Stochastic Processes	
ELEG 6360	Modern Artificial Intelligence	
ELEG 6361	Advanced Artificial Intelligence	
ELEG 6370	Selected Topics in Deep Learning	
Unrestricted Graduate-level Electives		9
Total Hours		30