

Year 5-6



Master's of Science in Data Science

Year 6: Students choose electives from their chosen concentration and also complete either their Master's project or Master's thesis.

Year 5: During the first year, students take core courses. They also choose a concentration for their studies, within which they choose from a selection of concentration courses.

Typical Core Courses

Probability and Statistics
Algorithms for Data Science
Statistical Inference and Modeling
Computer Systems for Data Science
Machine Learning
Data Science Capstone and Ethics

Concentration Courses

Intro to Data Mining
Markov Chains in Computer Science
Computer Graphics
Web Security
Numerical Mathematics
Databases and Scripting Languages

Year 3-4



Bachelor's Degree in Data Science

Year 4: Students take senior-level courses and fulfill internship and field-work requirements. Programs not requiring an internship recommended engaging a career exploration counselor to find an internship.

Year 3: Students take specialized courses such as information systems, marketing, logistics, supply chain and statistics.

GE Courses

Statistics 1 / 2
Written Communication
Social Sciences Synthesis
Humanities & Synthesis

Data Science Core Courses

Introduction to Programming
Programming for Analytics
Predictive Modeling
Data Mining
Applied Analytics Capstone
Big Data Analytics

Elective Courses

Multimedia Databases
Algorithms in the Real World
Optimization
Graphical Models
Machine Learning
Operating Systems Implementation

Year 1-2



Associate's Degree / Pursuing Bachelor's Degree

Year 2: Students should continue to complete their GE courses and begin taking lower-division requirement courses. Pre-requisite courses provide students with a basic understanding of theoretical and practical skills.

Year 1: Students are required to take general education courses, but it is also recommended they work to fulfill their degree prerequisite requirements.

GE Courses

Analytical Reading, Expository Writing
Critical Thinking
Oral Communication
Psychology
Political Science
Sociology

Data Science -Related Courses

Intro to Analytics
Data Structures for Analytics
Analytical Methods
Data Visualization

Lower-Division / Major Prerequisites

Pre-Calculus / Calculus I
Intro to Programming
Intro to Databases
Probability and Statistics

Year 0



High School Diploma

Transportation-related career academies.