

**MASTER OF SCIENCE: DATA SCIENCE**

**Course Title**

MSC 575 Statistical Computing (*prerequisite*)

**Required**

MSDS 600 Introduction to Data Science

MSDS 610 Data Engineering

MSDS 640 Ethics, Privacy, and Social Justice In Data Science

MSDS 650 Data Analytics

MSDS 660 Statistical Methods and Experimental Design

MSDS 692 Data Science Practicum I

MSDS 696 Data Science Practicum II

**Electives (choose 4)**

MSDE 620 Data Collection and Preparation

MSDS 655 Business Intelligence

MSDS 662 Exploratory Data Analysis

MSDS 664 Statistical Inference and Predictive Analytics

MSDS 670 Data Visualization

MSDS 674 Geographic Information Systems

MSDS 680 Machine Learning

MSDS 682 Text Analytics

MSDS 684 Reinforcement Learning

MSDS 686 Deep Learning

MSDS 688 Artificial Intelligence

MSCC 697 IT Research Methods

**Data Engineering Specialization**

MSDE 620 Data Collection and Preparation

MSDE 621 Data Wrangling

MSDE 630 Big Data Architecture

MSDE 631 SQL & NoSQL

MSDE 692 Data Engineering Practicum I

MSDE 696 Data Engineering Practicum II

	Fall SEM		Spring SEM		Summer SEM	
	Fall 8W1	Fall 8W2	Spring 8W1	Spring 8W2	Summer 8W1	Summer 8W2
	<i>available as needed</i>					
MSDS 600 Introduction to Data Science	X		X			
MSDS 610 Data Engineering	X		X		X	
MSDS 640 Ethics, Privacy, and Social Justice In Data Science		X		X		X
MSDS 650 Data Analytics		X		X		
MSDS 660 Statistical Methods and Experimental Design	X		X		X	
MSDS 692 Data Science Practicum I	X		X		X	
MSDS 696 Data Science Practicum II		X		X		X
MSDE 620 Data Collection and Preparation					X	
MSDS 655 Business Intelligence	X	X	X	X	X	X
MSDS 662 Exploratory Data Analysis		X		X		
MSDS 664 Statistical Inference and Predictive Analytics			X		X	
MSDS 670 Data Visualization			X			
MSDS 674 Geographic Information Systems						X
MSDS 680 Machine Learning	X		X			
MSDS 682 Text Analytics		X				
MSDS 684 Reinforcement Learning				X		
MSDS 686 Deep Learning	X		X			
MSDS 688 Artificial Intelligence		X		X		
MSCC 697 IT Research Methods	X	X	X	X	X	X
MSDE 620 Data Collection and Preparation					X	
MSDE 621 Data Wrangling						X
MSDE 630 Big Data Architecture	X					
MSDE 631 SQL & NoSQL		X				
MSDE 692 Data Engineering Practicum I	<i>available as needed</i>					
MSDE 696 Data Engineering Practicum II	<i>available as needed</i>					

Note: Course availability as listed is based on typical offerings and is not guaranteed.

All students should work with their Academic Advisor to create an individualized course sequencing plan based on actual availability.