DATA SCIENCE MAJOR, B.S.

Data Science majors must earn a minimum of 60 credits subject to the restrictions outlined below.

Core Requirements:

Course	Title	Credits
MATH 1830	Elementary Statistics	3
MATH 2130	Discrete Structures	3
or MATH 2730	Discrete Mathematics	
MATH 2640	Calculus and Analytic Geometry I	4
MATH 2740	Calculus and Analytic Geometry II	4
MATH 3230	Linear Algebra	3
MATH 4030	Statistical Methods with Applications	3
MATH 4050	Applied Regression Analysis	3
STAT 2030	Data Visualization and Analysis	3
COMPUTER 1430	Introduction to Computer Programming	3
COMPUTER 2430	Object-Oriented Programming	3
COMPUTER 3630	Database Design and Implementation	3
GEOGRPHY 3230	Geographic Information Systems	4
DATASCI 2010	Data Science I	3
DATASCI 2510	Data Science II - Intermediate Data Science	3
DATASCI 3010	Data Science Ethics	3
DATASCI 4900	Data Science Capstone	3

Focus Area Requirement (a minimum of 9 credits in one of the following areas):

Biology - Molecular/Genetics

Course	Title	Credits
BIOLOGY 3330	Genetics	3
GEOGRPHY 3340	Biogeography	4
BIOLOGY 3470	Systematics and Evolutionary Analysis	3

Biology - Ecological

Course	Title	Credits
BIOLOGY 3450	Ecology and Evolution	3
BIOLOGY 3460	Ecological Methods and Research	3
GEOGRPHY 3340	Biogeography	4

Mathematics/Statistics

Course	Title	Credits
STAT 3230	Experimental Design and Analysis	3
STAT 4130	Applied Categorical Data Analysis	3
STAT 4230	Applied Nonparametric Statistics	3
MATH 3730	Numerical Analysis	3

Business (a minor in Business is recommended for this focus area)

Course	Title	Credits
BUSADMIN 3640	Financial Markets and Institutions	3
BUSADMIN 3700	Marketing Research	3
BUSADMIN 3930	Investments	3
BUSADMIN 4030	Financial Decision Making	3

BUSADMIN 4120	Operations Management	3
BUSADMIN 4170	Predictive Analytics	3

Spatial

Course	Title	Credits
GEOGRPHY 3520	Remote Sensing of the Environment	3
GEOGRPHY 4040	Python for GIS	3
GEOGRPHY 4330	Advanced Geographic Information Systems	4

Computer Science

Course	Title	Credits
COMPUTER 2630	Data Structures	3
COMPUTER 3030	Artificial Intelligence	3
COMPUTER 4030	Machine Learning	3

Additional Requirement: Cumulative GPA of 2.5 minimum.

Recommended: Internship or Undergraduate Research Experience