



DATA SCIENCE

Academics

The Data Science major develops foundational knowledge and expertise in processing, analyzing, modeling, and implementing software solutions for large data sets. Majors apply computing and modeling to multidisciplinary problems and develop professional skills in teamwork and problem solving in interdisciplinary settings and domains. Students select two of the following focal areas:

- Artificial Intelligence,
- Software Applications,
- Data Pipeline,
- Mathematical Modeling,
- Statistical Modeling,
- Applied Computing: Journalism and Humanities,
- Applied Computing: Sociology, and
- Applied Computing: Natural Resources.

Opportunities

As a Data Science major, your skills in processing, analyzing, modeling, and implementing software solutions for large data sets and solving multidisciplinary problems in interdisciplinary settings will be extremely valuable to a variety of professions. In fact, Data Science careers are some of the most in-demand across the country and have some of the highest job satisfaction rates. Here are examples of local and regional opportunities that would be a good fit for this program's graduates.

- Data Engineer / *HUDL*
- GIS Web Developer / Analyst / *THE NORTH JACKSON COMPANY*
- Statistical Analyst / *EXPERIAN*
- Data & Research Analyst / *MERCER*
- Business Analyst / *SANDHILLS PUBLISHING*
- Programmer / Analyst / *CENTRIX SOLUTIONS, INC.*

Experience

In the College of Arts and Sciences, we know experience is valuable and goes beyond the classroom. We strive to help you connect your academics with research, internships, education abroad, service learning and leadership experiences. Take advantage of opportunities in Data Science such as:

- Studying abroad in Budapest, Hungary or Bath, United Kingdom
- Serving in a leadership position in a registered student organization (RSO)
- Interning with Hartford Insurance Company, Hudl, or Sandhills Global
- Researching with the Bureau of Sociological Research



DATA SCIENCE — SAMPLE 4-YEAR PLAN*

ACE = Achievement-Centered Education CDR = College Distribution Requirements

FIRST SEMESTER

CSCE 155T: Computer Science I (ACE 3)	3
MATH 104: Applied Calculus <i>or</i> MATH 106: Calculus I	3
Written Texts / Research & Knowledge Skills (ACE 1)	3
CDR: Language	5
Total Hours	14

SECOND SEMESTER

CSCE 311: Data Structures & Algorithms for Informatics	3
MATH 203: Contemporary Mathematics <i>or</i> MATH 107: Calculus II	3
Humanities (ACE 5)	3
CDR: Language	5
Total Hours	14

THIRD SEMESTER

STAT 101: Introduction to Data <i>or</i> STAT 218: Introductions to Statistics	3
MATH 314: Linear Algebra <i>or</i> MATH 315: Linear Algebra for Data Science	3
Scientific Methods & Knowledge of Natural / Physical World (ACE 4)	3
CDR: Writing	3
CDR: Language	3
Total Hours	15

FOURTH SEMESTER

CSCE 320: Data Analysis	3
STAT 102: Principles of Statistical Analysis <i>or</i> STAT 318: Introduction to Statistics II	3
Focus Area Course	3
CDR: Language	3
CDR: Natural, Physical, and Mathematical Sciences with Lab	4
Total Hours	16

FIFTH SEMESTER

Focus Area Course	3
Social Sciences (ACE 6)	3
Global Awareness & Human Diversity (ACE 9)	3
Fine Arts (ACE 7)	3
Elective / Minor / Secondary Major / Science / Pre-Professional	4
Total Hours	16

SIXTH SEMESTER

Focus Area Course	3
Ethical Principles (ACE 8)	3
CDR: Human Diversity in U.S. Communities	3
CDR: Social Science	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Total Hours	15

SEVENTH SEMESTER

MATH 435: MATH in the City (ACE 10)	3
Focus Area Course	3
CDR: Humanities	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Total Hours	15

EIGHTH SEMESTER

Focus Area Course	3
Communication Skills (ACE 2)	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Elective / Minor / Secondary Major / Science / Pre-Professional	3
Total Hours	15

*DISCLAIMER: This document represents a sample 4-year plan for degree completion with a major of interest in the College of Arts and Sciences. Actual course selection and sequence may vary and should be discussed individually with an academic advisor at the college and department level.