Data Science

Program in Data Science

The Program in Data Science offers students an interdisciplinary approach to the study of data and data analytics toward the goal of transforming the data to understanding. It bridges the fields of science, computer science, mathematics, statistics, and a domain area of choice. Students get the opportunity to learn and use the latest tools and technologies in statistics and machine learning, while also learning to effectively communicate their results to the world. The program concludes with an internship or research experience in data science. While not a major, courses applied toward the requirements for the data science program may also be counted toward requirements in other majors or minors.

Coordinators

Jennifer L. Bradham, Environmental Studies
Beau M. Christ, Computer Science

As an interdisciplinary program, students must complete two computer science courses, two math courses, and an additional course in the knowledge domain they are pursuing. The program culminates in an internship or research experience related to data science.

Requirements for the Program in Data Science

Course	Title	Hours
Computing Fundamentals		**3**
COSC 235	Programming & Problem Solving [1]	
Mathematical Fundamentals		**6**
MATH 181	Calculus I	
MATH 221	Statistical Methods I	
Data Science Fundamentals		**3**
COSC 375	Data Science	
Domain Knowledge		**3 to 4**
ACCT 412	Auditing	
ECO 303	Econometrics	
ENVS 336	Climate Change (with lab)	
ENVS 338	Terrestrial Ecology (with lab)	
ENVS 340	Quantitative Environmental Methods & Models (with lab)	
FIN 411	Investments	
FIN 450	Corporate Financial Analysis	
Data Science Practicum [2]		
Total Hours		**15-16**

1 *Students must complete COSC 235 with a grade of 'C' or higher.*

2 *Students must also complete an internship or significant research project involving data science and approved in advance by the program coordinator. The student must submit a final report and present a talk on campus summarizing the internship or findings of the research project*