DATA 3230: Data Visualization

3 Credit Hours

Prerequisite: STAT 1401 or DATA 1501 or STAT 2332 or STAT 3125

This course introduces students to the field of data visualization. The course covers basic design and evaluation principles to prepare and analyze large datasets, and standard visualization techniques for different types of data using modern data visualization software. The course prepares students to communicate clearly, efficiently, and in a visually compelling manner to a variety of audiences.

DATA 3300: Data Science Ethics

3 Credit Hours

Prerequisite: STAT 3130

As the field of data science and artificial intelligence continues to rapidly grow, so does the need for strong ethical guidelines. Throughout this course, students will learn the foundational ethical theories and frameworks, and the origins of ethics within data science. Students will use case studies to learn about the ethical dilemmas around the collection, management, and use of data, the use of models and algorithms, and the future of artificial intelligence and machine learning. Topics include Privacy, Informed Consent, Ownership, Security, Bias, Misinformation, Data Governance and Codes of Ethics.

DATA 3396: Cooperative Study

1–3 Credit Hours

Prerequisite: Approval of the coordinator of cooperative education/internship.

This course is a supervised work experience program for a minimum of two academic semesters at a site in business, industry, or government. It is for sophomore, junior, or senior-level students who wish to obtain successive on-the-job experience in conjunction with their academic training.

DATA 3398: Internship

1–9 Credit Hours

Prerequisite: Approval of the program coordinator and department chair.

This course is a supervised, credit-earning work experience of one academic semester with a previously approved business firm, private agency, or government agency.