DATA HUB (DATA)

DATA 1010 Introduction to Data (3)
DATA 1010 aims to provide students with an overview to what data is, how it is used correctly and incorrectly, how it is found, stored, and managed, and how it can be used as a basis for decision making and analysis. The overall goal of this course is to increase data literacy, such that students are more confidently able to work with the increasing amounts of data in their lives, jobs, and academic careers. This course is aimed towards students in all schools and fields and has no prerequisites.

DATA 1940 Transfer Course Work (0-4)
Transfer Coursework

Maximum Hours: 99

DATA 2020 Data Analysis (3)
This course provides an overview of the statistical tools most commonly used to analyze quantitative data. Topics include describing data, statistical inference, statistical significance, hypothesis testing, and regression analyses. The course focuses on understanding how to use appropriate analytical techniques and interpret the results of statistical analyses for variables with different levels of measurement. For each topic area, the methodology, including the underlying theory, assumptions, and mechanics of how each analytical tool works, is discussed, along with the appropriate interpretation of results. Concepts are presented in the context of real-world examples using publicly available data sets. The course will also introduce students to statistical software. Students of all skill levels are welcome, including those with limited or no statistical, mathematical, or programming backgrounds. All data analysis skills will be taught in class.

DATA 2030 Data Visualization (3)
Students will examine different creative and analytical theories and techniques for understanding and developing data visualizations, including maps, graphs, charts, and interactive tools such as dashboards. Students will access and clean data for visualizing potential, analyze data visualizations for bias and persuasive intent, and create data visualizations to communicate findings and tell engaging stories for diverse audiences. Students will also consider the societal role that data visualizations play in validating knowledge while exploring ethical concerns and critiques around communicating arguments visually. As practice, students will storyboard, create, peer review, and justify design choices when using a variety of open-source data visualizations. Students of all skill levels are welcome, and all data visualization skills will be taught in class.

DATA 2150 Applied Generative AI (3)
The introduction of widely available and accessible generative Artificial Intelligence tools, such as ChatGPT, democratizes expertise, unlocks knowledge, and bestows impressive abilities. This hands-on course provides students with practical experience employing generative AI to perform real-world tasks. By the end of the course, students will be able to effectively collect accurate historical and real-time information, generate high-quality text and media, transform content between formats, analyze data to derive insights and deploy generative AI to tackle private and professional challenges.

DATA 2810 Special Topics (3)
Special Topics in Data Literacy. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

DATA 2940 Transfer Coursework (0-20)
Transfer Coursework

Maximum Hours: 99

DATA 3810 Special Topics (3)
Special Topics in Data Literacy. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

DATA 3940 Transfer Course Work (0-4)
Transfer Coursework

Maximum Hours: 99