PROGRAM OVERVIEW

A Master of Information and Data Science

Designed for data science professionals, the UC Berkeley School of Information's (I School) Master of Information and Data Science (MIDS) program prepares students to derive insights from real-world data sets, use the latest tools and analytical methods, and interpret and communicate their findings in ways that influence decision-making in their organizations.

Delivered on an interactive online platform and designed by UC Berkeley I School faculty, the MIDS program brings the unique UC Berkeley student experience to students — no matter where they live.

MIDS Curriculum

Through a hands-on, project-based approach, the MIDS program features a rigorous, multidisciplinary curriculum that prepares students to form valuable data queries by defining (and refining) business or research questions that are relevant and tractable in order to use data to inform decision-making.

Students learn to apply the latest statistical and computational methods for identifying patterns, extracting insights, and making predictions from complex data sets. The curriculum also provides students with the opportunity to hone their skills in effectively communicating findings of data analysis and dealing with the ethical dilemmas and legal requirements associated with working with real-world data at scale.

The MIDS curriculum focuses on the following key areas:

- Research design
- Data visualization
- Data engineering
- Ethics and privacy
- Machine learning
- Statistical visualization
- Mining and exploring
- Communicating results

CURRICULUM OVERVIEW

The MIDS program is 27 units, which can be completed over three to five terms. All students are required to take two courses in their first term. As a part of the curriculum, you will also attend an immersion experience on the UC Berkeley campus.

Students who pass the Introduction to Data Science Programming waiver exam will complete 12 units of foundation course work, 12 units of advanced coursework, and the synthetic capstone course.

Students who do not pass the Introduction to Data Science Programming waiver exam will be required to complete the Introduction to Data Science Programming foundation course as part of their 15 units of foundation course work, 9 units of advanced course work, and the synthetic capstone course.

Foundation Courses (12-15 units)

- Introduction to Data Science Programming*
- Research Design and Application for Data and Analysis
- Statistics for Data Science
- Fundamentals of Data Engineering
- Applied Machine Learning

Advanced Courses (9 units) – choose 3

- Experiments and Causal Inference
- Behind the Data: Humans and Values
- Deep Learning in the Cloud and at the Edge
- Statistical Methods for Discrete Response, Time Series, and Panel Data
- Machine Learning at Scale
- Natural Language Processing with Deep Learning
- Data Visualization
- Computer Vision
- Machine Learning Systems Engineering

Capstone Course (3 units)

- Synthetic Capstone Course

*Required course for students who do not pass the Introduction to Data Science Programming waiver exam.
According to IBM, the projected demand for data scientists will increase 28% by 2020.