UC Berkeley's Master of Information and Data Science — Delivered Online

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.

Academic Overview

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, students 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 Engineering
- Machine Learning
- Mining and exploring
- Statistical analysis
- Ethics and privacy
- Data visualization
- Communicating results

CURRICULUM OVERVIEW

The MIDS program is 27 units, which can be completed over three to five terms. As a part of the curriculum, students also attend an immersion experience on the UC Berkeley campus or in other locations relevant to data science.

Foundation Courses (12–15 units)

Python for Data Science*
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 Causality
Behind the Data: Humans and Values
Scaling Up! Really Big Data
Statistical Methods for Discrete Response, Time Series, and Panel Data
Machine Learning at Scale
Natural Language Processing with Deep Learning
Data Visualization

Capstone Courses (3 units)

Synthetic Capstone Course

*Required course for students who are not proficient in object-oriented programming.

STUDENT EXPERIENCE

Seamlessly Delivering the UC Berkeley Student Experience Online

- **A robust online learning experience.** Delivered using a web-based platform and featuring self-paced online course work and live collaborative seminars driven by problem solving and discussions, the datascience@berkeley online classroom creates a rich learning experience with no back row.

- **An in-person immersion.** Crafted to deliver additional learning, networking, and community-building opportunities, this three- to four-day program offers students the chance to meet faculty and classmates, attend lectures and workshops, and participate in networking events with industry leaders.

- **Face-to-face interaction.** The online platform facilitates collaboration and leads to real connections among students, faculty, and peers.

- **Dedicated student support.** Fully integrated into the I School community, students receive academic, technical, and career services support.

- **Connections in the San Francisco Bay Area.** San Francisco is the epicenter of the data revolution. Students build valuable connections through an extensive global network.

LEARNING APPLICATION

Completing the MIDS degree program while continuing one's career is value added for your employee and your company. Students can immediately apply the hands-on course materials directly to their professional work every day. This powerful benefit allows your employees to:

- Develop a perspective that is embedded right from the start on what your company can do with data science.

- Generate the right questions to get answers you can use.

- Increase the speed and efficiency of the products and outcomes of data science that are used at your company.

- Bridge the divide between qualitative and quantitative data, and apply this learning to create holistic strategies.

- Understand how to make data science work for strategic decision making.

> According to IBM, the projected demand for data scientists will increase 28 percent by 2020.
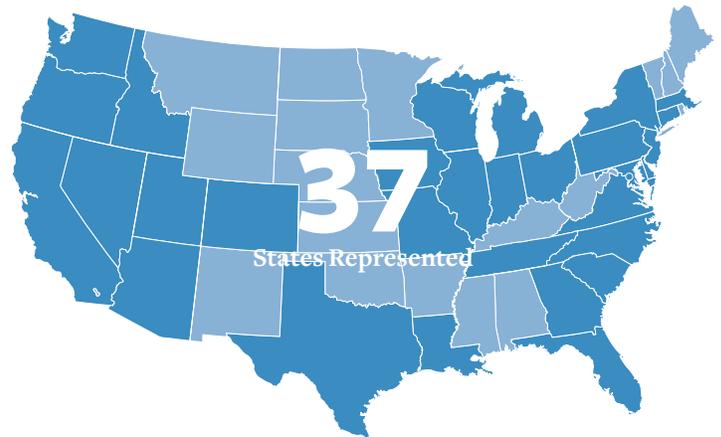
CLASS PROFILE

Age Range:
22–65

Average Age:
34

Current Students Are Located Across the US

37
States Represented

Selected Employers

23andMe	Google	Salesforce
Amazon	Intel	The Walt Disney Company
American Express	JPMorgan Chase	Uber
Apple Inc.	Merck	United Airlines
Boeing	Microsoft	U.S. Navy
Ernst & Young	Netflix	Verizon
Facebook	Pandora Radio	

Employment Positions

Analytics Engineer	Director of Operations	Technology Solutions Manager
Business Intelligence Director	Finance Strategy Manager	Vice President of Strategy & Analytics
Chief Economist	GM of Product Solutions	
Cloud Architect	Geophysicist	
Computational Scientist	Marketing Director	

Berkeley SCHOOL OF INFORMATION

datascience@berkeley