Computational Social Science

Do you have a social science degree? Make it count.

Do you have a degree in economics, history, political science, psychology, sociology, global studies, or another social science? Berkeley Master's in Computational Social Science (MaCSS) believes social scientists make good data analysts because they understand what data mean and how data analysis can affect people, communities, and the economy.

The MaCSS program will teach you to integrate social science theories and findings with statistical training and computational skills to solve real-world social problems. We will give you practical skills in the analysis and interpretation of social data—data about people, communities, organizations, and their interactions—and prepare you for a job as a data analyst in business, government, or the nonprofit world.

Please note: This program is not intended for students who have computer science, data science, or statistics bachelor's degrees.

Applying for Graduate Admission

Thank you for considering UC Berkeley for graduate study! UC Berkeley offers more than 120 graduate programs representing the breadth and depth of interdisciplinary scholarship. The Graduate Division hosts a complete list (https://grad.berkeley.edu/admissions/choosing-your-program/list/) of graduate academic programs, departments, degrees offered, and application deadlines can be found on the Graduate Division website.

Prospective students must submit an online application to be considered for admission, in addition to any supplemental materials specific to the program for which they are applying. The online application and steps to take to apply can be found on the Graduate Division website (https://grad.berkeley.edu/admissions/steps-to-apply/).

Admission Requirements

The minimum graduate admission requirements are:

1. A bachelor’s degree or recognized equivalent from an accredited institution;
2. A satisfactory scholastic average, usually a minimum grade-point average (GPA) of 3.0 (B) on a 4.0 scale; and
3. Enough undergraduate training to do graduate work in your chosen field.

For a list of requirements to complete your graduate application, please see the Graduate Division’s Admissions Requirements page (https://grad.berkeley.edu/admissions/steps-to-apply/requirements/). It is also important to check with the program or department of interest, as they may have additional requirements specific to their program of study and degree. Department contact information can be found here (https://guide.berkeley.edu/graduate/degree-programs/).

Where to apply?

Visit the Berkeley Graduate Division application page (http://grad.berkeley.edu/admissions/apply/).

Admission to the Program

We take a holistic approach to reviewing applications, paying attention to the demonstrated ability to overcome hardships and non-traditional educational and career paths. Applicants must have an undergraduate degree (or its equivalent) in a social science discipline to be eligible for admission to the MaCSS program. This includes (but is not limited to) disciplines like anthropology, demography, economics, geography, history, linguistics, psychology, political science, and sociology, as well as interdisciplinary social-science programs like global studies and political economy. We are looking for undergraduate students in their final year of study and early-career professionals who are eager to learn new statistical and computing tools and techniques, and to use them to generate new insights into social data and solve real-world problems. A complete list of admissions criteria and requirements can be found on the Graduate Division website (https://grad.berkeley.edu/admissions/steps-to-apply/apply/).

MaCSS Application requirements:

- Online Application for Admission
- Personal Statement -Transcripts
- Two Letters of recommendation
- Proof of Proficiency in English
- Quantitative Skills Statement
- Resume
- Video/ Audio Submission

Statement of Purpose

The statement of purpose should convey why an applicant is interested in the MaCSS program, their interest in using their social science knowledge to interpret social data using computational methods and statistical analysis, and how this degree aligns with their professional and personal interests.

Personal Statement

An applicant’s personal statement allows the admission committee to gain insight into who applicants are as people. Applicants can share how they’ve overcome challenges or barriers to education, their ability to work collaboratively with people from diverse backgrounds, or the implications of social data analysis on marginalized or underrepresented groups.

Quantitative Statement

The quantitative statement allows applicants to highlight their quantitative skills and experience in academic and/or professional settings. We expect applicants to have a wide range of experience with quantitative skills. For that reason, we designed the MaCSS curriculum to bring all students up to speed by the end of Summer Sessions.

Course Requirements

Summer Boot Camp Required Courses (6 units) [1]	
COMPSS 201	Introduction to Computing [3]
COMPSS 202	Introduction to Applied Statistics [3]
Fall Required Courses (14 units)	
COMPSS 211	Advanced Computing [3]
COMPSS 212	Applied Statistics I [3]

	COMPSS 213	Data, Ethics and Society [3]
	COMPSS 214A	Computational Social Science 1A [1.5]
	COMPSS 214B	Computational Soc Sci 1B [1.5]
	COMPSS 215	Career Development I [2]
Spring Courses (14 units)		
	COMPSS 221	Data Visualization [2]
	COMPSS 222	Applied Statistics II [3]
	COMPSS 224A	Forced Out: Decoding Housing Displacement through Data [1.5]
	COMPSS 224B	Quantitative Political Risk Analysis [1.5]
	COMPSS 225	Mastering the Corporate Arena: Strategic Skills for Professional Success [2]
	COMPSS 230	Capstone Project [4]

[1] All students are required to take the summer boot camp courses; however, students can waive out of this requirement by passing MaCSS waiver exams in statistics and computing methods in May prior to enrollment.

Comprehensive Exam - Plan II

Students are required to submit an individual written report that covers the knowledge and skills related to data analysis at the level expected of a MaCSS degree recipient. This will include a self-assessment and summary of what they have learned from courses in the summer, fall, and spring, including how what they have learned relates to their desired career outcomes.

MaCSS has the following goals and outcomes:

- Integrate research theories, methods, and empirical findings in the social sciences with statistical training and computational tools.
- Create a population of graduates who can successfully navigate the uneven terrain between data, methods, and interpretation of results.
- Bring together students from diverse socioeconomic and ethno-racial groups, as well as various gender categories, and create a pathway into interesting and well-compensated data-analyst careers that will help diversify the data-analytics workforce.
- Bring attention to social issues like privacy, bias in input data (and therefore algorithmic outputs), fairness, and inclusivity.

The MaCSS program makes career training and job placement a core part of the curriculum, not an afterthought. In addition to giving students the tools for better data analysis, we want to help them find the best place to use them. MaCSS graduates will be prepared for positions as data analysts with a healthy skepticism regarding data quality, along with a toolkit for working with imperfect data.

To help prepare students for a successful job search, MaCSS students will benefit from:

- Practical application of computing and statistics to social data throughout the curriculum
- A capstone project where students analyze data from a sponsor organization to answer pressing questions;
- Two career-development courses; and
- One-on-one career advising to provide individual guidance and coaching throughout the job search, job application, and recruiting processes.

Professional Opportunities

Social data has great potential to improve the efficiency and quality of a wide range of services and products across many different industries as well as nonprofits and government agencies, making jobs that require a master's degree in data and computational science in high demand. Job opportunities for data analysts are proliferating as data analytics spreads from the tech sector to agriculture, consumer services, finance, government, healthcare, manufacturing, nonprofits, retail trade, transportation, and wholesale trade. MaCSS graduates will be qualified for in-demand positions, including:

- Data Analyst
- Business Intelligence Specialist
- Product Analysis Specialist
- Client Services Analyst
- UX/UI Researcher
- Marketing Strategy Specialist
- Sales Analysis Specialist