

Photo credit: Keegan Houser

HOW TO USE THIS MAP

Use this map to help plan and guide your experience at UC Berkeley, including academic, co-curricular, and discovery opportunities. Everyone's Berkeley experience is different and activities in this map are suggestions. Always consult with your advisors whenever possible for new opportunities and updates.

CONNECT WITH US

Golden Bear Orientation

Join your peers in the campus-wide UC Berkeley **orientation** program for all new students.

Events

Attend department events with students, faculty, and staff. Visit **math.berkeley.edu** for news and updates.

Math & Physical Sciences (MPS) Launch Day

Learn about campus opportunities and resources, get questions answered, and meet faculty, advisors, and students at the MPS new student orientation.

ADVISING

The **Math advising** team serves both declared and prospective majors.

Meet with them to discuss major requirements, policies and procedures, helpful resources, enriching opportunities, and much more!

For more information or to contact an advisor, visit **math.berkeley.edu/undergraduate/advising.**

Visit **ue.berkeley.edu/majormaps** for the latest version of this major map.

Berkeley Mathematics 970 Evans Hall #3840 Berkeley, CA 94720-3840 math.berkeley.edu

APPLIED MATHEMATICS

Bachelor of Arts



INTRODUCTION TO THE MAJOR

The **Applied Mathematics** major prepares students to use mathematical concepts to formulate, analyze, and solve real-world problems. Students in the major learn:

- Research, communication, analytical, and modeling skills to develop their mathematical reasoning skills.
- Techniques and procedures to formulate and solve problems in mathematical notation.
- To identify real-world problems as subject to mathematical reasoning and to abstract general principles from the examples.

Visit the **Berkeley Academic Guide** for more information.



Photo credit: Keegan Houser

The rigorous classes helped me think deeply about problem-solving and made me a more analytical thinker.

- Applied Math Major

MAJOR CLUSTERS

The Applied Mathematics major provides students with the opportunity to customize their learning by selecting a cluster pathway. A cluster is an approved concentration of courses in a specific field of applied mathematics. There are more than 15 approved clusters with the most popular being:

- Actuarial Science
- Computer Science
- Economics
- Statistics

More information on approved clusters can be found at **math.berkeley.edu**. Students can also design their own cluster with the guidance and approval of faculty.

AMPLIFY YOUR MAJOR

- Add a Teaching Concentration to your major and join **CalTeach** to prepare for a career in education.
- Build community through MPS Scholars.
- Test your problem-solving skills in the prestigious **Putnam Competition**.
- Apply to a Research Experience for Undergraduates Summer Program.
- Work alongside a grad student mentor via the **Directed Reading Program**.
- Write an **honors thesis** or execute an independent study project.

APPLIED MATHEMATICS

Bachelor of Arts

Program.

DESIGN YOUR JOURNEY

school.

school programs and other opportunities.



	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
kplore ur major	Review your major and college requirements, and map out a 4-year plan on CalCentral . Get tutoring help from the Student Learning Center or individual tutors . Check out the Math peer advisor blog . Learn how to plan your major, select courses, use LaTex, and more at MUSA workshops .	Complete the prerequisites and declare Applied Mathematics as your major. Challenge yourself by taking Honors sections of courses. Consider a minor or a summer minor. Review major guidelines for study abroad.	Plan your cluster courses or design your own with the help of a faculty advisor . Review your degree progress with your major and college advisors . Learn more about the Honors Program with help from the Major Advisors .	Do a degree check to ensure you are on track to graduate . Finish remaining major, college, and campus requirements. Complement your major with a certificate or course thread . Register for the department and campus-wide commencement ceremonies.
onnect d build mmunity	Find community with Math student groups. Get mentoring with Berkeley Connect and MPS Scholars . Enroll in MPS 1: Navigating the Mathematical and Physical Sciences. Find study groups, tutoring, and academic support at the Student Learning Center .	Attend a Math lecture or workshop . Connect with Math peer advisors . Go to office hours to build connections with professors and graduate student instructors. Consider MATH 74 to learn skills for transitioning to upper division math.	Join career-oriented groups such as Data Scholars or the Cal Actuarial League . Consider applying for a leadership position within your student organization. Become a Golden Bear Orientation Leader and welcome new students to UC Berkeley. Hear guest speakers at Math Mondays .	Become a Mathematics Peer Advisor and help prospective and current Mathematics students. Connect with alumni groups and build your network as you prepare to graduate. Help other students with Mathematics at the Student Learning Center or independently .
iscover our passions	Discover new interests in a Freshman Seminar (Math 24), L&S 1, or DeCal course. Visit the Office of Undergraduate Research and Scholarships. Compete in the Putnam Competition. Take MATH 191 to elevate your success.	Connect with faculty to discuss their work and research in Mathematics. Work closely with a graduate student through the Directed Reading Program . Enroll in a Sophomore Seminar , Big Ideas , or Discovery Course .	Apply to a Research Experience for Undergraduates Summer Program or the MSRI Undergraduate Program. Check out research opportunities with SURF, URAP, and the Haas Scholars Program. Apply for a leadership position in your student organization.	Teach your own DeCal course . Write an honors thesis or execute an independent study. Keep pursuing your interests through a fellowship or gap year after graduation.
ngage cally and obally	Discover hundreds of organizations at the Calapalooza student activities fair. Explore study abroad options now, so you can start planning out your upcoming semesters. Check out volunteer opportunities on campus.	Deepen your knowledge of applied mathematics by attending workshops and conferences. Study abroad as a sophomore, junior, or senior with Berkeley Study Abroad. Take classes at another UC or college through a visitor and exchange program.	Intern and study in Washington D.C. with UCDC or Cal in the Capital. Study Mathematics abroad through Berkeley Study Abroad, or Budapest Semesters in Mathematics. Engage in STEM education and mentorship with Bridging Berkeley, Expand Your Horizons, or SENDforC.	Apply to be an Undergraduate Math Tutor . Explore gap year opportunities that you may wish to pursue before your next big adventure. Go on a service-learning trip with the Alternative Breaks program. Hone your leadership skills with the Peter E. Haas Public Service Leaders program .
Reflect nd plan our future	Develop a plan for getting career ready. Join Handshake to find Berkeley-specific internship opportunities and career development workshops. Explore career fields in the Career Connections Series or the Cal Job Shadow	Conduct Informational Interviews to learn more about different career fields . Attend internship fairs to find internship opportunities. MATH 197 Field Study can be taken for study (internships) in off-campus organizations.	Discuss graduate school options with advisors and professors. Attend career and graduate school fairs. Network with professionals from various industries in Employer Information Sessions. Prepare to take exams required for graduate	Boost your networking skills by attending events with UC Berkeley alumni. Find full-time jobs and paid internships through On-Campus Recruiting . Update your resume and LinkedIn profile. Apply to jobs, graduate and professional

Learn about graduate and professional

school. See **Step-by-Step** for planning help.

WHAT CAN I DO WITH MY MAJOR?

Jobs and Employers

Actuarial Analyst, Aon Risk Services Al Research Director, Numerate Analyst, Kohl's Applications Engineer, Revmotive Business Analyst, Wayfair Data Analyst, Tribe Dynamics Data Scientist, Oracle Digital Analyst, McKinsey & Company Energy Analyst, CA Energy Financial Consultant, Deloitte Research Assistant, IMF Software Develop. Engineer, Amazon Software Engineer, PayPal SW Engineer Intern, City & Cty. of SF Software Quality Associate, Waymo

Graduate Programs

Accounting Actuarial Science Artificial Intelligence and Robotics **Applied Mathematics Biomedical Sciences** Computational Mathematics **Computer Graphics** Computer Science Economics **Electrical Engineering** Finance International Studies Neurobiology Physics Secondary Education Statistics

Examples gathered from the **First Destination Survey** of recent Berkeley graduates.

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