**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](https://www.math.berkeley.edu) for more information.

**AMPLIFY YOUR MAJOR**

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

**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](https://www.math.berkeley.edu). Students can also design their own cluster with the guidance and approval of faculty.

**H OW 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](https://www.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/programs/undergraduate/advising](https://www.math.berkeley.edu/programs/undergraduate/advising).

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APPLIED MATHEMATICS

Design Your Journey

First Year
- 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.

Second Year
- 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.

Third Year
- 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.

Fourth Year
- 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.

Explore your major
- Find community with Math student groups.
- Get mentoring with Berkeley Connect, MPS Scholars, and L&H Mentors Program.
- Enroll in MPS 1: Navigating the Mathematical and Physical Sciences.
- Find study groups, tutoring, and academic support at the Student Learning Center.

Connect and build community
- 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.

Discover your 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.

Engage locally and globally
- 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.

Reflect and plan your future
- Use the Yearly Planner to guide your career path.
- Join Handshake to find Berkeley-specific internship opportunities and career development workshops.
- Explore career fields in the Career Connections Series or a winter externship.

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

Jobs and Employers
- Actuarial Analyst, Aon Risk Services
- AI Research Director, Numerate
- Analyst, Kohl’s
- Applications Engineer, Revonte
- 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 Developer, Engineer, Amazon
- Software Engineer, PayPal
- SW Engineer Intern, City & Cty. of SF
- Software Quality Associate, Waymo

WHAT CAN I DO WITH MY MAJOR?

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

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