INTRODUCTION TO THE MAJOR

The UC Berkeley Astrophysics Undergraduate program prepares students to understand the world beyond our own! The Department of Astronomy endeavors to meet that need by providing students access to a broad spectrum of courses taught by prize-winning faculty, state-of-the-art facilities, first-class scientists and researchers, and opportunities to conduct research projects. The Astrophysics major provides students physical reasoning, computational and analytical skills and prepares them for a career in academia, data science, tech and space industry, and many other fields.

JOIN THE ASTROPHYSICS DEPARTMENT

• Join the Undergraduate Astronomical Society.
• Learn how to program in Python early by taking our DeCal course, PHYSICS 77/88, or CS 61A.
• Conduct a research project with one of our world-renowned scientists in the Astronomy Department, SSL, or LBL.
• Apply to a summer REU program.
• Apply to an undergraduate student instructor (UGSI) or grader position.
• Join CalTeach to prepare for a career in education. Talk to CalTeach faculty director Eugene Chiang.

THE ASTROPHYSICS CURRICULUM

Berkeley Astronomy courses cover an array of topics. The lower division ASTRO 7A & 7B courses give a comprehensive overview of our Universe, from exoplanets to cosmology. The upper division courses offer an in-depth view on planetary astrophysics (162), stellar physics (160), and relativistic astrophysics and cosmology (161). Our program stands out by its unique and rigorous lab courses, including the optical-IR (120), the radio astronomy (121), and the data science (128) labs. Courses are taught by expert faculty, ensuring a more enlightened and thorough educational experience.

“I like the closeness of the Astronomy department, how there are frequent chances to interact with other undergraduates, graduates, postdocs, and faculty alike.”

– Nicholas Rui, Class of ’20

AMPLIFY YOUR MAJOR

CONNECT WITH US

Events
Attend department events with students, staff, and faculty. Join our Piazza Page, follow us on Instagram, Facebook, and Twitter, and visit our Astro events and news.

ADVISING

Amber Banayat is the Academic Advisor. Contact her for more information on major and minor requirements, policies, procedures, department resources, events and activities. Advising appointments can be made using CalCentral. For general information, please contact astroadvising@berkeley.edu.

Join our Piazza Page and view our Astro wiki page for information about courses, resources and more.

Mariska Kriek is the Undergraduate Faculty Advisor. Visit her office hours for assistance with content of courses, research, graduate school and career development.

Climate Advisors and Undergraduate Student Representative
Do you have any feedback or concerns on climate, curriculum, etc.? Check in with the Undergraduate Climate Advisors or the Undergraduate Student Representative, and join our bi-annual Town Hall meeting with the Chair and Faculty Advisor.

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.

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

**Bachelor of Arts**

**FIRST YEAR**

**Explore your major**

- Meet with your Astro advisor and L&S advisor to discuss your academic plans.
- Review major and college requirements. See the 4-year major plan video for example plans.
- Complete MATH 1A + 1B and PHYSICS 5A.
- Learn more about the major with the Astrophysics FAQ, Piazza page, and Berkeley Astronomy Wiki.

**Connect and build community**

- Sign up for the Astronomy mailing list and follow us on Facebook, Twitter, and Instagram.
- Join the Undergraduate Astronomy Society.
- Participate in the Astro Buddy Program, Berkeley Connect, or L&S Mentors Program.
- Take advantage of (STEM) community and resources from programs like CAL NERDS and EOP.

**Discover your passions**

- Apply for the Astronomy Scholars Program or Berkeley SEEDS Scholars Program.
- Attend the Undergraduate Research and Scholarships Fair in October.
- Get involved in campus research with ULAB.
- Enroll in Howard Isaacson’s "Introduction to Research" course in the summer after your first year.

**Engage locally and globally**

- Attend the Calapalooza student activities fair and get involved with a student organization.
- Find service opportunities through the Public Service Center.
- Explore study, internship, and research abroad opportunities with Berkeley Study Abroad or Berkeley Global Internship.

**Reflect and plan your future**

- Attend the Astrophysics “Success after Berkeley” seminar series on academic resources, graduate school, career development and more.
- Visit the Career Center and Career Counseling Library.
- Explore career fields through the Career Connections Networking Series or a winter externship.

**SECOND YEAR**

**FIRST YEAR**

- Complete PHYSICS 89/Math 54, PHYSICS 11A, 57B + 57C, and ASTRO 1A + 1B.
- Take Astro Python coding DeCal course, PHYSICS 71AA, or CS 61A.
- Submit the required forms to declare the major to your major advisor.
- Get access to Campbell Hall for use of lab space, KAIT room, and study lounge.

**Connect and build community**

- Attend weekly Department Lunch Talks.
- Attend Astronomy Colloquium, Theoretical Astrophysics Center Seminars, and the CIPS seminar.
- Become a buddy in the Astro Buddy Program.
- Get involved in student organizations like LEAD.

**Discover your passions**

- Apply for summer research programs (American Astronomical Society (AAS) List of Summer Research Opportunities, Haas Scholars Program, SURF, Cal-NERDS, McNair Scholars Program).
- Apply to the Berkeley Astronomy group (AAS, Student Group).
- Apply to be an Astro UGD or grader.

**Engage locally and globally**

- Enroll in a sophomore seminar. Big Ideas Course or Discovery Course.
- Engage in STEM education and mentorship of local youth with Support, Encourage, and Develop for Children at Berkeley.
- Experience life at another UC or college on a summer minor.

**Reflect and plan your future**

- Meet with a Career Center counselor. Astro Advisor or Undergraduate Faculty Advisor to discuss your career options and goals.
- Learn about graduate and professional school opportunities. See Step-by-Step for planning help.
- Consider an internship and attend internship fairs.
- Try some self-assessment activities to explore different directions within Astrophysics.

**THIRD YEAR**

**FIRST YEAR**

- Focus on upper division requirements and electives.
- Review your degree progress with your major and college advisor. See the Astro Degree Check Template and Advising Table.
- Enroll in ASTRO 198: Introduction into Research (you must already be involved in research).

**Connect and build community**

- Attend the Connections Networking Series.
- Attend our “Success after Berkeley” seminar series.
- Enroll in ASTRO 198: Introduction into Research (you must already be involved in research).
- Attend the Undergraduate Research and Campus-wide commencement ceremonies.

**Discover your passions**

- Apply for the SURF-SMART Program.
- Apply for the McNair Scholars Program.
- Apply for the AMPS Summer Internship Program.
- Apply for the American Astronomical Society List of Summer Research Opportunities.
- Attend the Undergraduate Research and Symposiums or through our Undergraduate Astronomy Society.

**Engage locally and globally**

- Participate in stargazing and science talks at Astro Night and Science@Cal.
- Get to know your Astronomy professors and graduate student instructors by attending office hours.
- Explore other student groups like Society of Women in the Physical Sciences. Out in STEM, or AstroQ.
- Get involved in student organizations like LEAD.
- Become a buddy in the Astro Buddy Program.
- Get involved in student organizations like LEAD.
- Apply to be an Astro UGD or grader.

**Reflect and plan your future**

- Become a Golden Bear Orientation Leader and welcome new students to UC Berkeley.
- Go on a service-learning trip with the Alternative Breaks Program.
- Enrich your studies with a Discovery Course.
- Visit the Public Service Center.
- Explore the UC Berkeley campus requirements.
- Explore the campus requirements.
- Meet employers at Employer Info Sessions on Campus Recruiting.

**WHAT CAN I DO WITH MY MAJOR?**

The undergraduate program prepares students for astrophysics graduate work or other advanced degrees in related science and engineering fields. It also prepares students for careers in teaching or for working in data science and other technical fields. Our students graduate with research and lab experience, computational and analytical skills, and an education that will position them in their chosen fields and professional endeavours.

**Jobs and Employers**

- Chemist, Argonne National Lab
- Data Scientist, Lockheed Martin
- Mission Integration Engineer, SpaceX
- Process Engineer, DiCon Fiberoptics
- Template
- Combined
- Quantitative Analyst, BoFa
- Research Asst., Cambridge University
- Research Intern, NASA-Ames Ctr.
- Scientist, Stanford University
- Scientist, James Webb Space Telescope
- Telescope Engineer, Amazon
- Software Engineer, Samsung
- Tutor, C2 Education

**Graduate Programs**

- Applied Mathematics, PhD
- Astronomy, PhD
- Astrophysics, PhD
- Chemical Engineering, PhD
- Computer Science, PhD
- Data Science, PhD
- Earth and Planetary Science, PhD
- Geophysics and Seismology, PhD
- Neuroscience, PhD
- Physics, PhD

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

- Telescope Engineer, Amazon
- Software Engineer, Samsung
- Tutor, C2 Education
- Combined