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.

AMPLIFY YOUR MAJOR

• 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-facilities (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

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

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.

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

**Bachelor of Arts**

**DESIGN YOUR JOURNEY**

## FIRST YEAR
- 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, PHYSICS 89A/MATH 54, PHYSICS 88B + 57C/58C + 57B/58B + 57B, and PHYSICS 71BB, or CS 61A.
- Learn more about the major with the Astrophysics FAQ, Piazza page, and Berkeley Astronomy Wiki.

## SECOND YEAR
- Complete MATH 53, PHYSICS 89B/MATH 54, PHYSICS 88B + 57C/58C + 57B, and Astronomy Python coding DeCal course, PHYSICS 71BB, 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, KAT room, and study lounge.

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

## FOURTH YEAR
- Do a Degree Check to ensure you are on track to graduate.
- Complete any "bucket list" courses and remaining major, college, and campus requirements.
- Register for the department and campus-wide commencement ceremonies.

## 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 HERDS 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 abroad opportunities with Berkeley Study Abroad or Berkeley Global Internship.
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## 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 Counselling Library. Sign up for Handshake and CareerMall.
- Explore career fields through the Career Connections Networking Series or a winter externship.

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**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
- Telescope Software Engineer, Amazon Software Engineer, Samsung Tutor, Cz 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.