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.

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

• 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.

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 Advising Discord, follow us on Instagram, Facebook, and Twitter, and visit our Astro events and news.

ADVISING

Brianna Franklin 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 Advising Discord and view our Astro wiki page for information about courses, resources and more.

Eugene Chiang is the Undergraduate Faculty Advisor. Email him for office hours and 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 ue.berkeley.edu/majormaps for the latest version of this major map.
FIRST YEAR
Meet with your Astro advisor and L&S advisor to discuss your academic plan.
Review major and college requirements.
Complete MATH 1A and PHYSICS 5A/7A.
Learn more about the major with the Astrophysics FAQ and Berkeley Astronomy Wiki.

SECOND YEAR
Complete MATH 53, PHYSICS 89/MATH 54, PHYSICS 88/88L and ASTRO 1A & 1B.
Take Astro Python coding DeCal course, PHYSICS 71R/88L, or 5C/5C.
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.

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 and Advising Table.
Enroll in ASTRO 199. 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 or Berkeley Connect.
Take advantage of (STEM) community and resources.

Discover your passions
Apply for the Physics and Astronomy Scholars Program or Berkeley SEED 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.
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 school.

Reflect and plan your future
Attend the Astrophysics “Success after Berkeley” seminar series on academic resources, graduate school, career development and more.
Visit the Berkeley Career Engagement and Career Counselling Library. Sign up for Handshake and CareerHall.
Explore career fields through the Career Connections Networking Series or a winter internship.
Meet with a Career Educator, Astro Advisor or Undergraduate Faculty Advisor to discuss your career options and goals.
Learn about graduate and professional school. 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.

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 equip 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
Quantitative Analyst, BoFA
Research Asst., Cambridge University
Research Intern, NASA-Ames Ctr.
Scientist, Stanford University
Scientist, James Webb Space Telescope
Software 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.