Introduction to the Major

Physics is the study of the universe, from the very large (star formation, cosmic microwave background radiation) to the very small (nanotechnology, atomic cooling and trapping, string theory), and everything in between (biophysics, and the physics of solid state devices).

Students studying physics develop strong mathematical and analytical skills, good laboratory skills, effective written and oral communication skills, and a solid understanding of the fundamental laws that govern the universe.

The Undergraduate Program

Our undergraduate program begins with courses designed to help you build a strong foundation, regardless of your prior background in physics. Upper division work deepens your understanding of the basics while introducing more modern and advanced topics. The program culminates in our upper division lab course, where you have a unique opportunity among physics departments nationwide to choose from many different experiments, ranging from classic Nobel Prize winning work (e.g., Optical Pumping or the Mossbauer Effect), to areas of current research interest (nonlinear dynamics and laser manipulation of atoms, among others).

Amplify Your Major

- Join a Physics student organization to help build community and foster leadership.
- Transfer students: enroll in PHYSICS 153 to connect to resources at Cal.
- Pursue opportunities for research with faculty and peers.
- Write an honors thesis or execute an independent study project.
- Add a Teaching Concentration to your major and join CalTeach to prepare for a career in education.

The physics skillset fosters acumen in modeling and understanding diverse systems, reducing complexity into intuition.

- Physics Major

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.

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Connecting with Us

Cal Day
Come to UC Berkeley's annual Open House in April for information sessions, campus tours, special talks, and more.

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 physics.berkeley.edu for news and updates.

Advising
Advising is available in 368 or 374 Physics North for all students who would like academic counseling related to physics. We can help maximize your educational experience! Students interested in the Physics major should come in for pre-major advising as soon as possible. Visit physics.berkeley.edu/administration/student-services for more information.

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Visit ue.berkeley.edu/majormaps for the latest version of this major map.
PHYSICS DESIGN YOUR JOURNEY

FIRST YEAR
- Explore your major: Meet with your major and college advisor to discuss your academic plans. Review major and college requirements. Map out a 4-year plan on CalCentral. Visit physics.berkeley.edu/academics/tutoring to learn more about options for tutoring.
- Connect and build community: Complete the MPS Scholars and PA Scholars registration forms for physics mentoring and community-building opportunities. Contact a physics advisor for more information. Get in mentoring with Berkeley Connect in Physics and L&S Mentors Program. Be sure to explore membership in Physics student organizations and STEM programs.
- Discover your passions: Discover new interests in a Freshman Seminar or student-run DeCal course. Visit the Office of Undergraduate Research and Scholarships. Learn about research opportunities for Physics majors. Get introduced to research via Undergraduate Laboratory at Berkeley.
- Engage locally and globally: Explore study abroad options now, so you can start planning your upcoming semesters. Check out volunteer opportunities on campus, such as those offered by the Public Service Center.

SECOND YEAR
- Explore your major: Complete lower division prerequisites and declare the major. Review major guidelines for study abroad.
- Connect and build community: Complete the MPS Scholars and PA Scholars registration forms for physics mentoring and community-building opportunities. Contact a physics advisor for more information. Get in mentoring with Berkeley Connect in Physics and L&S Mentors Program. Be sure to explore membership in Physics student organizations and STEM programs.
- Discover your passions: Enroll in a Sophomore Seminar. Big Ideas Course or Discovery Course. Assist faculty in their research through URBAP. Enjoy teaching! Explore a career in education while gaining teaching skills with CalTeach.
- Engage locally and globally: Contribute to a community organization with an American Cultures Engaged Scholarship course. Engage in STEM education and mentorship of local youth with Bridging Berkeley. Expand Your Horizons, or SENDforC. Consider a Berkeley Global Internship in the United States or abroad.

THIRD YEAR
- Explore your major: Focus on upper division requirements and electives. Review your degree progress with your major and college advisors. Ask the major advisor about the Physics honors program.
- Connect and build community: Give back by becoming a Physics peer tutor. Pursue summer research. Get involved with research with Physics faculty - consider applying to the Berkeley Physics Undergraduate Research Scholars Program.
- Discover your passions: Planning a senior thesis or project? Apply to the Haas Scholars Program or SURF. Pursue summer research. Get involved with research with Physics faculty - consider applying to the Berkeley Physics Undergraduate Research Scholars Program.
- Engage locally and globally: Tutor students at the Student Learning Center or through peer residential tutoring. Go on a service-learning trip with the Alternative Breaks Program.

FOURTH YEAR
- Explore your major: Meet with your major advisor and with your college advisor to verify your completion of all major and college requirements. Register for the department and campus-wide commencement ceremonies.
- Connect and build community: Join a professional association such as the American Institute of Physics. Connect with alumni groups and build your network as you prepare to graduate.
- Discover your passions: Teach your own DeCal course or give a public talk as part of an Undergraduate Seminar. Undertake an optional honors thesis or independent study. Keep pursuing your interests through a fellowship or gap year after graduation.
- Engage locally and globally: Complete upper division prerequisites and declare the major. Review major guidelines for study abroad.
- Reflect and plan your future: Visit the Career Center and Career Counseling Library. Check out the Career Center Yearly Planner. Sign up for Handshake and CareerMail. Explore career fields through the Career Connections Series or a winter externship. Attend Career Workshops offered by the Physics Department.

WHAT CAN I DO WITH MY MAJOR?
We believe a Physics degree represents strong training for a broad range of careers. Approximately half of our recent graduates have continued to graduate school in Physics and related fields; others have taken jobs in high tech industries or as management consultants, and still others have entered medical school or law school.

Jobs and Employers
- Data Scientist, SeatGeek
- Process Engineer, DiCon fiberoptics Research Asst., Lawrence Berkeley Lab
- Software Engineer, Fuzzy
- Software Engineer, LimeBike
- Software Quality Ops. Assoc., Waymo
- Technical Consultant, Bridgepoint Consulting

Graduate Programs
- AI & Robotics, Masters
- Astronomy, PhD
- Astrophysics, PhD
- Electrical Engineering, PhD
- Law, JD
- Operations Research, Masters
- Physics, PhD

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

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