INTRODUCTION TO THE MAJOR

The Engineering Science (ES) program is a multi-departmental and interdisciplinary undergraduate program that encompasses closely-related areas of the physical sciences, mathematics and engineering. Students in the ES program acquire knowledge of engineering methods and can pursue their interests in areas of natural science, as well as advanced study in engineering, science, or mathematics. Students choose one of four majors: energy engineering, engineering mathematics and statistics, engineering physics, or environmental engineering science. A minor in energy engineering is also offered.

MAJOR OPTIONS


“The classes across a variety of departments have allowed me to take a very interdisciplinary approach to engineering. And the great community within this major has taught me how to work with a team.” – T.G. Mekenzi Roberts, Energy Engineering Science, Class of 2020

AMPLIFY YOUR MAJOR

- Get involved with a student group such as Society of Engineering Sciences.
- Apply to GLOBE Ambassadors, a learning and travel program for Engineering students.
- Pursue a research opportunity for Engineering students.
- Enrich your studies with a minor in Energy and Resources or Sustainability.

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.

ADVISING

Visit Engineering Student Services in 230 Bechtel for advising on academic difficulty, change of major/double majors/simultaneous degrees, withdrawal/readmission, degree completion, education abroad, academic progress, and petitions and exceptions. See engineering.berkeley.edu/students/advising-counseling/.

Contact the ES Undergraduate Advisor at engineeringscience@berkeley.edu about registration, departmental policy, and campus resources. Meet with an ES Faculty Advisor about coursework, careers in ES, graduate school, letters of recommendation, and summer internships. See engineeringscience.berkeley.edu/faculty/.

Visit vcue.berkeley.edu/majormaps for the latest version of this major map.
FIRST YEAR

- Meet with your ESS advisor to discuss your academic plans.
- Familiarize yourself with major and college requirements.
- Talk to an ESS advisor about department programs and research opportunities.

SECOND YEAR

- Talk to ESS peer advisors about life in the major.
- Meet with your ESS advisor to discuss your academic progress.
- Complete lower division prerequisites and start planning your upper division classes.
- Plan now if considering a double major, simultaneous degree, minor, or study abroad.

THIRD YEAR

- Focus on upper division requirements and electives.
- Continue meeting with your ESS advisor to review your academic progress.
- Submit paperwork for a double major, simultaneous degree, minor, or study abroad.

FOURTH YEAR

- Meet with your ESS advisor to do an official degree check and plan for your final year.
- Complete any “bucket list” courses and remaining major, college, and campus requirements.

WHAT CAN I DO WITH MY MAJOR?

Graduates in Engineering Science gain a broad foundation for graduate studies in theoretical branches of engineering, as well as in mathematics, and are prepared for careers in specific sectors of industry or business, such as green technology, solar engineering, and environmental firms to name a few.

Jobs and Employers

- Data Engineer, Capital One
- Data Scientist, Barclays Capital
- Engineer, Northrop Grumman
- Hybrid Calibration Engineer, General Motors
- Project Coordinator, Climate Corps Software Engineer, Primus Power
- Project Engineer, New Energy Equity Research Assistant, California Institute of Technology

Graduate Programs

- Aerospace, Astronautical, and Astronautical Artificial Intelligence and Robotics, PhD
- Atomic/Molecular Physics, PhD
- Electrical, Electronics, and Communications Engineering, Masters
- Engineering, Masters Materials Engineering, PhD
- Physics, PhD

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

YOUR FUTURE

Discover and build your passions

- Browse research taking place in Engineering centers, institutes, and labs.
- Attend the Undergraduate Research and Scholarships Fair in October.
- Discover new interests in a Freshman Seminar or student-run DeCal course.
- Broaden your perspective by attending Newton Series or View From the Top lectures.

Engage locally and globally

- Attend the Calpalooza student activities fair and get involved with a student organization.
- Find service opportunities through the Public Service Center.
- Connect with other students during Engineers Week.
- Work with a community organization in an American Cultures Engaged Scholarship course such as ENGIN 98x4.
- Apply to GLOBE Ambassadors, a learning and travel program for Engineering students.
- Mentor local youth with Pioneers in Engineering, Berkeley Engineers and Mentors, or Engineering for Kids.

EXPLORE YOUR PASSIONS

- Consider pursuing a research opportunity for Engineering and ESS students.
- Apply to a REU research program. Check Berkeley Lab and UCSC for more research options.
- Check out design and maker opportunities at the Jacobs Institute.
- Enrich your studies with a minor in Energy and Resources or Sustainability.

EXPLORE YOUR MISSION

- Explore your mission and impact as an Engineer through the LeaderShape Institute.
- Consider the Sutardja Certificate in Entrepreneurship and Technology or a summer abroad through the European Innovation Academy.
- Apply for a research opportunity if you haven’t done so already.

THIRD YEAR

- Take your engineering skills international through Engineers Without Borders.
- Consider a Berkeley Global Internship such as the Engineering Internship in Toronto.
- Experience life at another UC or college on a study abroad program.
- Planning a summer internship abroad? Apply for travel funding from GLOBE Scholars.

FOURTH YEAR

- Serve as a student representative on a college committee.
- hone your leadership skills with the Peter E. Haas Public Service Leaders program.
- Explore service opportunities after graduation, such as Peace Corps, Teach for America, or U.S. Department of State.

RESEARCH AND THE BUCKETS

- Attend career and graduate school fairs such as the STEM Career & Internship Fair.
- Discuss graduate school options with advisors and professors.
- Attend an ESS workshop on networking and job search skills.
- Attend the job offer negotiation workshop in ESS.
- Apply to jobs, graduate school, and other opportunities.

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