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.

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

MAJOR OPTIONS

- **Energy Engineering** interweaves the fundamentals of classical and modern physics, chemistry, and mathematics with energy engineering applications.
- **Engineering Mathematics and Statistics** is the study of pure and applied mathematics as essential components of modern engineering.
- **Engineering Physics** interweaves classical and modern physics, chemistry, and mathematics with their engineering applications.
- **Environmental Engineering** pairs engineering fundamentals with courses in the environmental and natural sciences.

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.
ENGINEERING SCIENCE  
DESIGN YOUR JOURNEY

Bachelor of Science

**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 courses.
- 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.

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**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

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

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**CONNECT AND BUILD COMMUNITY**
- Take advantage of tutoring and workshops for Engineering students.
- Find academic support at the Student Learning Center and Center for Access to Engineering Excellence.
- Find student opportunities in the ESS newsletter and new student podcast.

**DISCOVER 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.

**ENGAGE LOCALLY AND GLOBALY**
- Attend the Calapalooza 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.

**REFLECT AND PLAN YOUR FUTURE**
- Visit Berkeley Career Engagement and the Career Counseling Library.
- Sign up for Handshake and CareerMail.
- Explore career resources on Engineering website.
- Attend an ESS workshop to create a resume and LinkedIn page.

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