College of Engineering Undergraduate Research Opportunities

There are many research opportunities for undergraduate students, including those through educational programs, undergraduate courses, and connections with faculty in your department.

Educational Programs

The Materials Research Laboratory offers opportunities for summer and school-year research internships both at UCSB and at our international partner institutes.

- California Alliance for Minority Participation (CAMP)
  UCSB science and engineering undergraduates from under-represented groups participate in summer and school year research projects.
- Community College Interns in Materials Science (CCIMR)
  Students from community colleges in southern California participate in an 8-week summer research internship program at UCSB. Interested students should apply through the INSET program of the California NanoSystems Institute.
- Cooperative International Science and Engineering Internships (CISEI)
  The MRL and the International Center for Materials Research host an REU program that sends US undergraduate science and engineering majors to 10-week summer internships at our international partner institutions. Students from our international partner institutions complete research internships at UCSB; international students should apply through their home university.
- Partnership for Research and Education in Materials (PREM)
  Students from Jackson State University and other Minority Serving Institutions participate in mentored research internships at UCSB through this NSF-funded partnership.
- Research Interns in Science and Engineering (RISE)
  Students from UCSB and other colleges and universities around the country pursue research projects under the supervision of MRL faculty and researchers. Both summer and school year internships are available.
Center for Science and Engineering Partnerships (CSEP) offers several programs designed to enrich the academic experience of undergraduates at UC Santa Barbara in science, technology, engineering and mathematics disciplines. These programs range from a two-week summer introduction to research for incoming freshmen, to early research exposure for lower and upper division students, including an international research exchange. CSEP provides opportunities for students to develop research projects under the mentorship of UCSB faculty and graduate student researchers. Programs include:

- Arnold and Mabel Beckman Foundation Scholars Program (Beckman Scholars)
- Center for Energy Efficient Materials Internship (CEEM)
- Diagnostics for Monitoring Disease-Undergraduate Research Experience & Knowledge Award (DiaMonD-UREKA)
- Expanding Pathways to Science, Engineering and Mathematics (EPSEM)
- Early Undergraduate Research and Knowledge Acquisition (EUREKA!)
- Internships in Nanosystems Science, Engineering and Technology (INSET)
- Summer Institute in Mathematics and Science (SIMS)
- Scholarships for Transfers to Engage and Excel in Mathematics (STEEM)
- University of California Leadership Excellence through Advanced Degrees (UC LEADS)

Follow some of our interns through their research journeys on the UCSB undergraduate research blog: https://undergrad.research.ucsb.edu/blog/
The Undergraduate Research and Creative Activities (URCA) operates under the College of Letters and Science, but its programs are open to all undergraduates. The mission of URCA is to promote the scholarly work of undergraduate students and to provide resources for undergraduates to pursue independent research and creative activities under the guidance of faculty mentors. Support is available under various categories. At the end of each academic year, URCA hosts an Undergraduate Research Colloquium to recognize the scholarly achievements of students and acknowledges the faculty contributions to the development of undergraduate research.

Undergraduate Courses

Our departments offer courses for qualified students to earn credit for doing research projects or internships in industry:

- ChE 196 Undergraduate Research
- ChE 198 Independent Studies in Chemical Engineering
- CMPSC 192 Projects in Computer Science
- CMPSC 193 Internship in Industry
- CMPSC 196 Undergraduate Research
- ECE 192 Projects in Electrical and Computer Engineering
- ECE 193 Internship in Industry
- ECE 196 Undergraduate Research
- ME 193 Internship in Industry
- ME 197 Independent Projects in Mechanical Engineering

Check with your department’s undergraduate advisor for more information and enrollment criteria.

Opportunities in your Major

One of the best ways to find out about potential research projects is to contact individual faculty members in
your department during office hours or by appointment. For more information about how to gain research experience as an undergraduate, visit the UCSB Undergraduate Research Office website.

Matthew Tirrell Award for Distinction in Undergraduate Research

In 2009, the Tirrell Award was established in honor of former Dean Matthew Tirrell, to recognize a College of Engineering senior who has shown excellence and promise in research during his or her academic career. The award is presented to the recipient at the College’s annual Senior Send-Off.