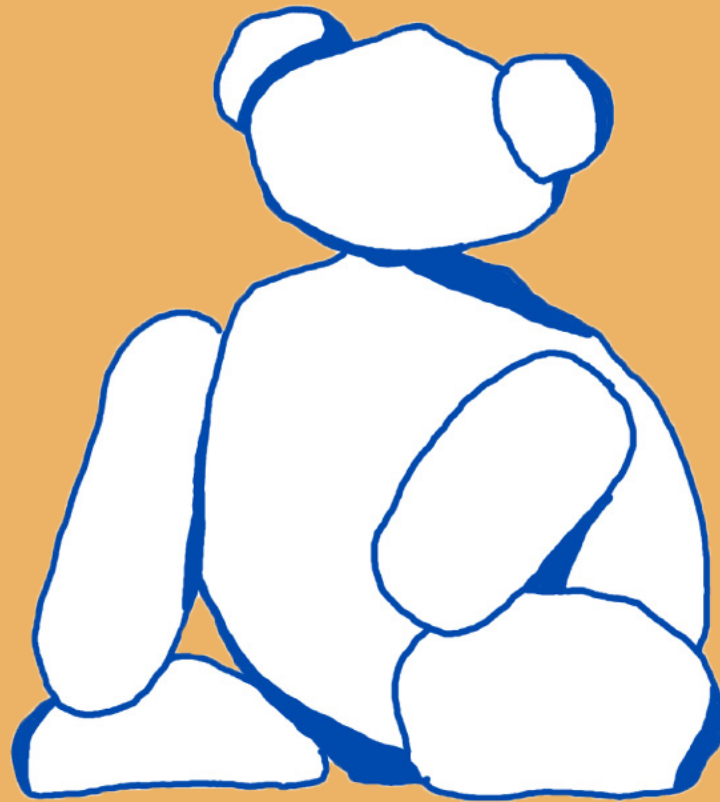


idea *engineering
student center*

TRANSFER ENGINEERING STUDENT GUIDEBOOK

for students by students



Continuing the NonTRADITION
(2022-2023 Edition)

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INTRODUCTION

Welcome to the Jacobs School of Engineering! We are delighted to have you as a part of our community and hope that your time at UC San Diego will be enjoyable. We understand that transfer students face many unique challenges due to the limited time they have until graduation. The following guidebook has been put together by previous transfer engineering students and aims to familiarize you with the resources that are available to you at UC San Diego so that you can take full advantage of your time here.

ACADEMIC PLANS

Before you begin your academic journey at UCSD, it is strongly recommended that you make an academic plan that outlines the courses you will need to take to graduate. Your academic plan should include courses required to fulfill university, college, and major requirements.

Advice:

It is generally recommended that you only enroll in 12 units (3 courses, each 4 units) your first quarter at UCSD in order to become acclimated with the pace of the quarter system and get used to the workload for upper division engineering (or major-specific) courses. A good rule of thumb is to balance 2 major-specific courses with 1 or 2 general education or humanities courses.

You should also leave room in your weekly schedule for professor and TA office hours that may not be specified on webreg but will be announced once you receive the syllabus. Office hours are excellent for course-specific problem-solving and homework help, asking questions to clarify certain topics, and getting to know your professors and TAs and forming study groups with other students who also attend study groups.

Once you have made a tentative plan, you should make an appointment with your major advisor to discuss how feasible it is.

Utilize the links below and navigate to your department/major webpage to get started on making your academic plan.

Note: The university has a 6 quarter cap for undergraduate transfer students to fulfill all degree requirements, however, many engineering degrees cannot be completed in that time. You should discuss petitioning to complete your degree in 3 years with your advisor as soon as possible.

EXAMPLE ACADEMIC PLANS

Utilize the links below and navigate to your department/major webpage to get started on making your academic plan.

Note: Your schedule may look different depending on the status of your IGETC, and prerequisites, but you may use the resources and example schedules at the end of this guidebook, as a guide to make your own schedule.

Department of Bioengineering

*The department of Bioengineering does not provide transfer academic plans on their website, and students are asked to make their own. Utilize the flow charts provided to make an academic plan.

- [Bioengineering \(B.S.\)](#)

YEAR	FALL QUARTER	WINTER QUARTER	SPRING QUARTER
First Year	MAE 8 MAE 3 BENG 110	BENG 140B BENG 100 BENG 112B	MAE 107 MAE 170 BENG 199
Second Year	MAE 107 MAE 170 BENG 199	BENG 186B MAE 140 BENG 199	BENG 187A BENG 172 BENG 125 BENG 103B
Third Year	BENG 187B MAE 150 BENG 122A	BENG 187C Design Elective HSS/DEI Elective	BENG 187D Design Elective HSS/DEI Elective

- [Bioengineering: Bioinformatics \(B.S.\)](#)

YEAR	FALL QUARTER	WINTER QUARTER	SPRING QUARTER
First Year	BICD 100 MAE 8 MATH 20E	BENG 1 BIPN 100 WCWP 100 BENG 123	BENG 100 SOCL 146 SOCL 117 ANSC 122
Second Year	CENG 101A BENG 110 MAE 170 WCWP 160	BENG 16B BENG 130 BENG 112A	BENG 187A BENG 103B BENG 160 BENG 186A
Third Year	BENG 161A BENG 187B BENG 166A BENG 162 BENG 179A	BENG 161B BENG 187C BENG 199 BENG 179B	BENG 125 BENG 187D BENG 193 BENG 199

- [Bioengineering: BioSystems \(B.S.\)](#)
- [Bioengineering: UC San Diego Course Catalog](#)
- [Bioengineering Department: Undergraduate Education](#)

Department of Computer Science and Engineering

The website provides two- and three-year academic plans depending on fulfilled requirements.

- [Computer Science \(B.S.\)](#)
- [Computer Engineering \(B.S.\)](#)
- [Computer Science with a Specialization in Bioinformatics \(B.S.\)](#)
- [Minor in Computer Science](#)
- [Computer Science: UC San Diego Course Catalog](#)
- [Computer Science Department: Undergraduate Education](#)

Department of Electrical and Computer Engineering

The website provides two- and three-year academic plans.

- [Computer Engineering \(B.S.\)](#)
- [Electrical Engineering \(B.S.\)](#)
- [Engineering Physics \(B.S.\)](#)
- [Electrical Engineering & Society \(B.A.\)](#)
- [Electrical and Computer Engineering: UC San Diego Course Catalog](#)
- [Electrical and Computer Engineering department: Undergraduate Education](#)

Department of Mechanical and Aerospace Engineering

The website provides three-year academic plans.

- [Aerospace Engineering \(B.S.\)](#)
- [Mechanical Engineering \(B.S.\)](#)
- [Mechanical Engineering Specializations](#)
- [Engineering Mechanics Minor](#)
- [Mechanical and Aerospace Engineering: UC San Diego Course Catalog](#)
- [Mechanical and Aerospace Engineering Department: Undergraduate Education](#)

Department of NanoEngineering

The website provides two- and three-year academic plans.

- [Chemical Engineering \(B.S.\)](#)
- [NanoEngineering \(B.S.\)](#)
- [NanoEngineering: UC San Diego Course Catalog](#)
- [NanoEngineering department: Undergraduate Education](#)

Department of Structural Engineering

- [Structural Engineering \(B.S.\)](#)
- [Structural Engineering: UC San Diego Course Catalog](#)
- [Structural Engineering department: Undergraduate Education](#)

PREPARATORY PROGRAMS AND SUPPORT NETWORKS

Below is a list of various preparatory and support programs available to incoming students. Please note that the deadline to apply to these programs may be in the Spring (when offers are sent out) or during the Summer, so check your email to be sure!

It may be challenging to navigate UCSD and all its resources at first. These programs will help guide you in paving a path to success for yourself!

Summer Transfer Prep (Application Deadline: Early Summer)

Transfer Prep is a 4-day program held over the summer for incoming transfer engineering students. This FREE program provides incoming students with the opportunity to acclimate to campus life, build skills and habits necessary for success in engineering, and develop community amongst their peers before beginning their courses in the fall. This program offers an opportunity for incoming engineering transfer students to interact and build community with peers and meet current engineering students who will serve as their mentors throughout the duration of the program. Participants will engage in academic and social activities that include connecting with faculty, staff and current students through workshops, small group discussions, and information sessions. Students need to apply and be accepted into the program.

TRIO Student Support Services Program (SSSP) + Summer Experience (Deadline: Early Summer)

The TRIO Student Support Services Program (SSSP) is committed to providing support and information that validates each student's experience and nurtures a sense of participation, belonging and empowerment. Through mentorship, academic programs, one-to-one counseling/ advising, referrals to campus resources and social/ cultural programming, they strive to maximize your involvement and success in the campus academic community. In addition to assisting students through to graduation, TRIO SSSP helps motivate and inform students to utilize services to enhance their preparation for the job market and/or graduate and professional school admission. TRIO SSSP is for students who are low-income, first-generation college students and/or students with disabilities.

Jacobs Undergraduate Mentoring Program (JUMP) (Application Deadline: Early Fall Quarter)

The Jacobs Undergraduate Mentoring Program is a community of engineering students (both undergraduate and graduate) and alumni, who provide support, advice, guidance, and experience to all members. Students are paired with a group of mentors and encouraged to participate in community socials and proactively seek guidance and build a support network.

Transfer Engineering Academic Mentorship Program (TEAM) (Application Deadline: Early Fall Quarter)

Aims to create a strong community of Transfer Engineering students. Incoming students are paired up with a second or third year transfer student in their major who will mentor and guide them through their first year. There are also socials and activities for students to get together and form a community. It is highly recommended to participate in TEAM as a mentee your first year, and as a mentor your second year. TEAM also has graduate mentors that help plan events and guide undergraduates through their academic careers.

ACADEMIC SUPPORT

UC San Diego offers various resources for students who need help with their classes, projects and/or writing.

Advice:

For help with upper division classes, attend TA/Professor Office hours and form study groups with other students. Ask questions during lecture if something is unclear. You may also ask for homework clarification through email from your TA or instructor. In addition, you may also utilize the services listed below.

[Engineering Learning Communities](#)

Offers supplemental instruction for a variety of Calculus/Physics/Chemistry courses that most engineering students are required to take. The list of courses offered changes per quarter and students need to apply early to receive a spot. These are on a first-come first-serve basis. Look out for the application in your UCSD email inbox!

[Language Arts Tutorial Services \(LATS\)](#)

OASIS LATS provides free individual tutoring sessions and workshops in the areas of writing, foreign languages, and study skills for all UC San Diego undergraduate students. LATS tutoring services and workshops begin Week 2 of all academic quarters.

[OASIS Math & Science Tutorial Program \(MSTP\)](#)

OASIS Math & Science Tutorial Program (MSTP) provides an enriching environment where all of UCSD's students can be part of a welcoming community through collaborative workgroups, individual tutoring, and study jams. We strive to provide equitable experiences and ample resources for students to succeed in STEM courses.

[Teaching + Learning Commons Student Academic Support](#)

At the Teaching + Learning Commons, students can get support for challenging courses, subjects, and projects. Whether in a group setting or through one-on-one assistance, in person or online, these support services help students develop effective learning and problem-solving strategies to be successful at UC San Diego and beyond.

- [Content Tutoring](#)
Personalized support with course-specific learning skills and strategies, development of time management and personal growth in skills to master course content and prepare for homework and exams
- [Learning Strategies Tutoring and Workshops](#)
Through one-on-one appointments, group workshops, and a Canvas resource site, students gain strategies for managing university-level learning, achieve greater insight into how they best learn, and develop a growth mindset, which research shows improve students' knowledge, skills, and abilities for success.
- [Supplemental Instruction \(Includes Study Groups\)](#)
The SI program gives students an environment to engage with content, ask questions, and review lecture material with their peers. SI currently supports courses in Biology, Chemistry, Economics, Math, Management Science, Physics, and Psychology.
- [Writing Tutoring and Workshops](#)
Students can make appointments with an Undergraduate or Graduate writing consultant to get individual feedback on their writing. They also offer a variety of workshops that each explore different writing-related topics.

STUDENT ORGANIZATIONS

There are numerous student organizations and clubs at UC San Diego. This section will focus primarily on organizations geared towards Engineering Students. For more information and a complete list of all UC San Diego student run clubs and their descriptions visit the [CSI Webpage](#).

A great way to learn about the different student organizations is to visit library walk during the beginning of Fall quarter. The beginning fall is the main recruitment phase for student orgs and many will be out tabling. Many engineering student organizations are categorized as preprofessional and there are many opportunities to join project teams.

Preprofessional

Preprofessional clubs focus primarily on preparing students for industry and the professional world. Many clubs will host career fairs, opportunities for students to meet with industry members, and host workshops to ready themselves for industry.

Project Teams

Project Teams are a great way to gain engineering experience as a student. There are multiple types of projects that you can join throughout your time at UCSD. Some student organizations require an application to join while others are completely open.

- **Quarterly projects** are short term projects that last 10 weeks. For these projects you will usually join a team of around 4 students and work together to complete a specified challenge. These can be a great way to gain experience but often requires personal accountability and motivation to see the project to completion.
- **Year long projects** are structured similarly to quarterly projects. Sometimes quarterly projects will get extended to year long if the project calls for it.
- **Multi-year long projects** are large scale projects that may have up to 20+ students working on a team. These projects usually have an established structure and team. It can be a great way to immediately learn from established members and gain experience, but it is unlikely that you will see a project from beginning to end.

There are over 50 engineering student organizations at UC San Diego. A list of undergraduate organizations can be found on the [IDEA Center website](#) as well as [this master document](#).

Diversity Organizations

[National Society of Black Engineers \(NSBE\)](#)

[Society of Hispanic Professional Engineers \(SHPE\)](#)

[Society of Women Engineers \(SWE\)](#)

[Out in Science, Technology, Engineering, and Mathematics \(oSTEM\)](#)

[Society of Asian Scientists and Engineers \(SASE\)](#)

[Undergraduate Women in Computing at UCSD \(WiC\)](#)

CAMPUS COMMUNITY CENTERS

Having a sense of community and belonging at UCSD is important. There are various campus community centers across campus that offer a space for marginalized and underserved students and actively work to create a supportive community to help students thrive during their time at UCSD. These centers also offer internship opportunities for students looking to obtain leadership experience and event management.

UCSD is a large campus and students may find it difficult to find a sense of belonging right away. Campus community centers make the campus smaller and more personalized and offer a space for students to relax and form community.

Asian Pacific Islander Middle Eastern Desi American Programs and Services

APIMEDA Programs & Services encourage community development, enhance coalition building with and within the APIMEDA students, staff and faculty, fostering greater visibility for the diversity within the APIMEDA community, and help students gain skills for success in their future careers. APIMEDA Programs and Services serves students from a variety of ethnic and cultural groups that make up the Asian American, Pacific Islander, and Southwest Asian North African American communities

Black Resource Center

Birthered through strong advocacy of students, alumni and other supporters, the BRC seeks to provide support services and foster community for current undergraduate and graduate students. Services include but are not limited to: academic support services, mentoring/leadership development, co-and extra-curricular programming, and non-academic counseling. In addition to the student services, the center is positioned as a resource for alumni, faculty, staff and the community at-large.

Cross-Cultural Center

The Cross-Cultural Center strives for meaningful dialogues and context across all cultures, particularly those of underrepresented or underprivileged backgrounds. They offer supportive and educational services through art, social and educational programs, workshops, and outreach.

Intertribal Resource Center

The Intertribal Resource Center (ITRC) is one of six Campus Community Resource Centers serving the UC San Diego campus. They are focused on supporting Native American students and promoting educational access in our tribal communities.

LGBT Center

The LGBT Resource Center at UCSD is a diverse, open and public space for all members of the university community to explore issues relating to sexual and gender identities, practices and politics. It develops student leadership, builds workplace equity, promotes academic research, and provides resources.

Office for Students with Disabilities

The Office for Students with Disabilities (OSD) at UC San Diego works with undergraduate, graduate, and professional school students with documented disabilities, reviewing documentation and, through an interactive process with the student, determining reasonable accommodations.

Raza Resource Centro

As a Campus Community Center with administrative staff and student interns, they offer activities, events, and resources to connect students, staff, faculty, and alumni. The RRC is open to everyone, and strives to emphasize and foster the access, retention, and graduation of Chicanx-Latinx students as well as create strong connections with our surrounding community.

SPACES

SPACES values the power of student-initiated action and organizing by providing an environment for student growth and development and thus is a foundation to create leadership and unity through community engagement.

Student Veterans Resource Center

The Student Veterans Resource Center (SVRC) is committed to the success of our military-connected students. We serve student veterans, military service members, their family members, and ROTC. In collaboration with campus and community partners, we support the academic, personal, and professional success of our students.

Triton Transfer Hub

A community space created to provide support to all transfer students at UCSD. They offer a variety of resources/services including: study space, community building opportunities, free printing, snacks and coffee (dependent on Covid-19 restrictions), peer mentorship, and much more!

Undocumented Student Services

Undocumented Student Services is committed to serving undocumented students at UC San Diego through a holistic approach that encompasses personal guidance, immigration legal services, community building, partnerships, and referrals. Their programs and services are designed to help students overcome obstacles that arise from their immigration status and support them through personal and academic excellence.

Women's Center

The UC San Diego Women's Center is a space in which people work collaboratively to foster the educational, professional, and personal development of diverse groups of women. The Center provides education and support to all members of UC San Diego regarding gender issues, with the goal of promoting an inclusive and equitable campus community.

BASIC NEEDS SERVICES

[Basic Needs Assistance Form](#)

This form is for UC San Diego students who are facing challenges with access to adequate food, stable housing, or general resources. The form will be assessed to provide individual resource suggestions and options to meet with supportive staff for a [Basic Needs](#) Consultation.

[Basic Needs Lyft Program Form](#)

Students may request a Lyft ride code for up to \$60 or based on the approval of the program staff.

[CalFresh Assistance Form](#)

For students who would like to learn more about eligibility requirements and application materials needed for CalFresh.

[Personal Hygiene Product Pick-Up Form](#)

Students may request personal hygiene products from an itemized list and arrange for a time to pick them up in a discrete manner.

[Triton Food Pantry](#)

The mission of the Triton Food Pantry is to provide a discreet service to UC San Diego students in need of food. They are located at Student Center A and Graduate Housing or "OMS" located at 3605 Miramar St. and students can pick up items in-person or have their pantry items delivered to them if they live within a 10-mile radius of the campus.

MENTAL HEALTH RESOURCES

[Counseling and Psychological Services \(CAPS\)](#)

Provides several services for students in need including counseling and psychiatric services, providing referrals, group workshops and outreach activities. Appointments can be made by calling (858) 534-3755 to schedule a first-time appointment, or through the [MyStudentChart](#).

[Let's Talk](#)

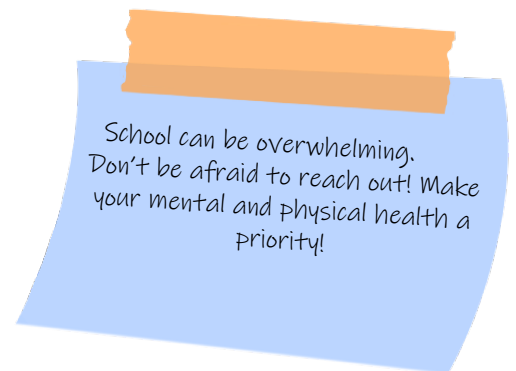
"Let's Talk" is a service offered by CAPS to students who are seeking informal support with mental health and campus resources. While this does not constitute formal mental health treatment, Let's Talk sessions are designed to provide practical strategies, information, and support regarding general wellness-related issues. This is a great opportunity to chat with a mental health professional and ask questions about your well-being, accessing resources, and getting connected with CAPS.

[The Zone](#)

As a part of health promotion services, the Zone is a lounge for student well-being designed to promote healthy, balanced living to UC San Diego students. The Zone works to support students within the 8 Dimensions of Well-Being and offers free programs such as:

- Yoga classes
- Meditation
- Therapy Fluffies
- Healthy cooking demonstrations
- R&R Squad body works
- Art & Soul DIY crafting workshops

The schedule of their activities can be found on their [calendar](#).



ON CAMPUS RESEARCH INTERNSHIPS

[ECE Spring/Summer Research Internship Program](#)

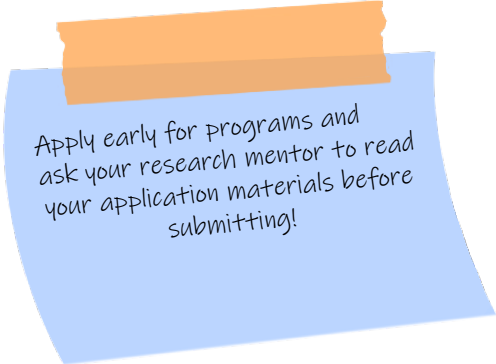
The ECE Summer Research Internship Program is an internship opportunity for all continuing ECE undergraduate and M.S. students to gain internship experience in the field. (You are not eligible if you are graduating Winter or Spring)

Students selected in 2022 will have the opportunity to observe and participate 10hr/week in Spring 2022 and 40hr/week in Summer 2022 in the activities of a research group under the supervision of the PI or a member of their lab group. Internships will be awarded based on a candidate's overall academic achievement and research interests. Research interns will be able to enroll in 2-4 units of ECE 199/299 in Spring 2022 and will receive a summer stipend in the amount of \$5,000, paid in two installments.

[Engineering Psychiatry Research Program \(EPRP\)](#)

The Engineering Psychiatry Research Program (EPRP) Fellowship is an unpaid research opportunity for ECE undergraduate and graduate students. Students selected by faculty members will have the opportunity to observe and participate 10 hrs/week in Spring 2022 and 40hr/week in Summer 2022 in the activities of a research group under the supervision of the PI or a member of his/her lab group. Internships will be awarded based on the candidate's overall academic achievement and research interest. Research interns will have the option to enroll in 2-4 units of ECE 199/299 in Spring 2022.

Note: Some departments have their own internal mechanism for internships. Generally students can also take 196 courses to receive academic credit for internships/ off-campus jobs. Handshake is also a great resource to look for on/off campus jobs or summer/full-time internships.



Apply early for programs and ask your research mentor to read your application materials before submitting!

RESEARCH OPPORTUNITIES FOR ENTERING STUDENTS WITH NO EXPERIENCE

If you have no previous experience with research, UCSD offers various programs for students to gain experience. Participating in research is not required for most degree programs, but most students choose to engage in research because they can gain hands-on experience with many techniques they only learn about conceptually in lecture courses, they gain support and community through the lab they join, and it is extremely rewarding for their career and professional development! Below is a list of some of the programs specifically designed for first-year/ transfer students.

No experience, no problem!
These programs are designed
to introduce you to research
and help you find your passion!

[Advanced Materials Research Experience for Undergraduates \(REU\)](#)

The University of California San Diego MRSEC Research Experiences for Undergraduates (REU) program provides full-time summer undergraduate research opportunities at the forefront of materials science and engineering. Students participate in 8 weeks of full time research and receive a \$600/week stipend.

[BUMMP Research Apprenticeship Program \(Contact: \[bump@ucsd.edu\]\(mailto:bump@ucsd.edu\)\)](#)

This scholarship is intended to expose students to cutting-edge research in labs under the guidance of a principal investigator. Applicants can be of any class standing and of any citizenship status. Students who receive a BUMMP quarterly scholarship will receive a scholarship of \$1,000, disbursed through the financial aid office.

Eligibility Requirements:

- Must be involved in the mentorship portion of BUMMP
- Must self-declare the following: a) URM, LGBTQ+ and/or disability status as defined by the NIH b) First-generation college status c) Low income background
- Be registered as a UC San Diego student while participating in the BUMMP program.
- You will be **required** to submit a summary of your project (a paper, poster presentation, oral presentation, or creative product) by the end of the academic year in which you receive your scholarship.
- Be able to commit at least 10-12 hours a week to research-related activities during the quarter of participation.
- Students must identify a faculty member who will guide them in their research. If you do not have a research advisor, please reach out to us for help in identifying a research lab.
- All current UC San Diego undergraduates will be enrolled full-time in the quarter they are applying to receive an award.
- There is a particular emphasis on serving students who face financial obstacles in pursuing research opportunities. Students who have not received BUMMP funding before will be prioritized.

[Early Research Scholars Program \(CSE_ERSP\)](#)

The UCSD Computer Science and Engineering Early Research Scholars Program (CSE-ERSP) is a team-based research apprentice experience for computer science and engineering majors in their second year of the program. Students work in teams of four, and each team is matched with an active research project in the department. Students learn about research in computer science and then propose and carry out an independent research project over the course of an academic year. **Advanced Materials Research Experience for Undergraduates (REU):** The University of California San Diego MRSEC Research Experiences for Undergraduates (REU) program provides full-time summer undergraduate research opportunities at the forefront of materials science and engineering. Students participate in 8 weeks of full time research and receive a \$600/week stipend.

ECE INTERNSHIP PREP PROGRAM (Costs \$275)

This summer program has been designed by our team from the Department of Electrical and Computer Engineering to help incoming ECE students prepare for their future job interviews in both the technical and professional space.

Faculty Mentor Program (FMP) (Contact jmavalosmorfin@ucsd.edu):

The Faculty Mentor Program (FMP) is an academic-year program that offers participating students the opportunity to get 99 or 199 credit for conducting research with the close guidance of a faculty mentor in their field. Please see below for guidelines and requirements:

- The program is now open to students with sophomore standing and above at the time of application to the program. Sophomores are students who have completed 45 units.
- Students must have a GPA of 2.7 or higher (students on the cusp of this threshold are encouraged to reach out to the FMP coordinator to discuss eligibility).
- Interested students are responsible for finding their own mentors. However, we offer guidance and resources, and if students are having problems finding a mentor, we encourage you to reach out to the FMP coordinator.
- The program is open throughout the academic year, and students must be able to conduct research both Winter+Spring quarters.
- All participating students must present a poster at the FMP Symposium at the end of Spring 2022.
- Students must attend required program seminars and activities and participate in workshops throughout each quarter.

Guided Engineering Apprenticeship in Research (GEAR)

GEAR is a year-long research apprenticeship program for second year students in the Jacobs School of Engineering. Students should be in their second year at UC San Diego during the application cycle academic year. As a GEAR Research Apprentice, you will work with a teammate on a research project within a Jacobs School of Engineering faculty research lab. **Moore's Cancer Center's Summer Science Enrichment Program:** This 8-week internship will begin the summer before you attend UC San Diego. The Program teaches aspiring undergraduate scientists about cancer and how disparities can influence cancer outcomes. Students are trained in bio-behavioral science labs where they learn about the scientific process through hands-on learning. Students gain a theoretical understanding of how cancer disparities develop and are sustained. They learn how to conduct research to discover ways to reduce cancer-linked disparities.

Initiative for Maximizing Student Development (IMSD)

The UCSD-IMSD program is composed of two consecutive phases starting with a basic training laboratory (BMTL), where they learn the basic skills necessary to participate successfully in a research project. The BMTL experience is followed by participating in a hands-on research project under the mentorship of an internationally recognized investigator. In addition, scholars participate in academic development workshops, a short course on ethics in science, and scientific seminars and journal clubs. During the year prior to graduation, scholars are assisted by the program director in the preparation of a strong graduate school application.

Moore's Cancer Center's Summer Science Enrichment Program

This 8-week internship will begin the summer before you attend UC San Diego. The Program teaches aspiring undergraduate scientists about cancer and how disparities can influence cancer outcomes. Students are trained in bio-behavioral science labs where they learn about the scientific process through hands-on learning. Students gain a theoretical understanding of how cancer disparities develop and are sustained. They learn how to conduct research to discover ways to reduce cancer-linked disparities.

SUMMER/QUARTER LONG RESEARCH SCHOLARSHIPS

It is strongly recommended that you participate in at least one Summer internship or research program. UCSD offers a variety of programs on campus. Some of these programs are also paid. For these internships you need to already be in a lab as they require a letter of support from a principal investigator (PI) and a specific project. You should discuss with your mentor ahead of time which project to propose and send them your draft before submitting! Most research statements need to define the scope of the project and the specific aims. Some may even require a timeline for the Summer. You should discuss all the requirements with your mentor before filling the application. You may find a list of these below.

<https://ucsd-research.academicworks.com/>

<https://ugresearch.ucsd.edu/research-programs/index.html>

<https://summer.ucsd.edu/program-finder/index.html>

McNair Scholars Program

The McNair Scholars Program is open to UC San Diego undergraduate students in all majors. Applicants must be US citizens or have Permanent Resident status. Applicants must have junior standing or above (at least 90 units) by the end of Fall Quarter. Participants may not graduate prior to the end of the program. Applicants must have a serious interest in pursuing a Ph.D. (including combined Ph.D. programs, such as M.D./Ph.D.). Applicants should also have a cumulative GPA of 2.9 or above, as a 3.0 cumulative GPA is necessary for participation in the McNair Summer Research Program. In addition, applicants must meet at least one of the two eligibility criteria as follows: applicants must either be first-generation college students from low-income households and/or must be members of an underrepresented ethnic group as defined by the US Federal Government (African American /Black, Hispanic, Native American, Pacific Islander). "Low-income" status is determined by the number of dependents in the household and household taxable income for the most recent tax year. The most recent "low-income" levels can be found online; this level is defined as 150% of the Federal Poverty Level for households: <https://groupplansinc.com/2020-federal-poverty-level-guidelines/>.

Triton Research and Experiential Learning Scholars (TRELS) (Quarterly and Summer Awards available)

The TRELS quarterly awards support students pursuing research and experiential learning opportunities during the Fall, Winter, and Spring quarters of the academic year. Applicants can be of any class standing, pursuing any major, and of any citizenship status. All applicants must have at least a 2.5 GPA. Students who receive a TRELS quarterly award will earn a \$1,000 scholarship. Students need to provide a statement of purpose, a statement of obstacles and a letter of recommendation from their PI. The TRELS summer research program supports students pursuing research and experiential learning opportunities during the summer session. Applicants can be of any class standing, pursuing any major, and of any citizenship status. All applicants must have at least a 2.5 GPA. Students who participate in the TRELS summer research program will earn a \$5,000 stipend. Students may also apply for TRELS funding for studying abroad or to attend conferences.

URS Programs

\$5000 research scholarships provided to students who propose a project to complete over 10 weeks during the Summer. Sponsorship from a PI is generally required.

- Summer URS Philip and Elizabeth Hiestand Scholarship for Engineering and/or SIO projects
- Summer URS Starbucks Sustainable Solutions and Learning Opportunities Research Scholarship
- Summer URS Research Scholarships for Physics
- Summer URS Ledell Family Research Scholarship for Science and Engineering
- Summer URS Julia Brown Research Scholarship for Health and Medical Professions, or Medical Research
- Summer URS Doris A. Howell Research Scholarship for Women's Health
- Summer URS David Marc Belkin Memorial Research Scholarship for Environment and Ecology

UC Scholars and Genentech Scholars Summer Research Programs

The UC Scholars Program is open to UC San Diego undergraduate students in all majors; the Genentech Scholars Program is designed for students with an interest in life sciences and biotechnology fields. Both programs are open to students of all citizenship statuses. Applicants must have junior standing or above (at least 90 units) and a cumulative GPA of 2.8 or above by the end of Spring Quarter. Participants may not graduate prior to the end of the program. The programs are intended for students who are interested in pursuing a research career. Preference will be given to students who have not participated previously in the Undergraduate Research Hub's Summer Research Program (SRP). Students who are members of traditionally underrepresented groups, students who are first-generation students, students with disabilities, and women in STEM fields are particularly encouraged to apply.

University of California Leadership Excellence through Advanced Degrees (UC LEADS)

(Contact: ucleads@ucsd.edu, Mr. Edgar Beas) A highly competitive two-year program of research and graduate school preparation in which students receive the following:

- Two paid summer research experiences, one at UC San Diego, the second at a UC of your choice
- Graduate school preparation and advising
- Travel funding to attend professional meetings or scientific conferences
- Membership to a professional society
- Poster presentations at the annual UC LEADS Research and Leadership Symposium
- Application fee waivers to UC graduate programs
- Leadership development
- Opportunity to meet other students interested in STEM on campus but also across the UC system
- GRE preparation
- Potential source of letters of recommendation

Scripps Undergraduate Research Fellowship (SURF)

A 10-weeks long research program where students get to conduct research in one of 220 laboratories and receive a \$5000 stipend and on-campus housing.

[RIMSE - Summer School for Silicon Nanotechnology \(SSSiN\) \(Contact: mrsec@ucsd.edu\)](#)

The RIMSE are immersive, hands-on six-week programs meant to prepare trainees to work in MRSEC-affiliated research labs. Generally taking place during the summer, RIMSE Summer Schools are run by MRSEC faculty who serve as senior mentors/instructors. Each school emphasizes different research aspects related to the MRSEC, including soft materials and biomaterials, self-assembled materials, and computational design, and they share a set of core training elements focused on: research-critical instrumentation (electron microscopy, Raman and FTIR spectroscopy, x-ray and electron diffraction methods); integration of computational methods; critical laboratory safety and the safe handling of chemical, biological, and nanotechnological hazards; and research ethics. The immersive curriculum includes three two-hour background lectures each week, and each participant completes a capstone “Discovery Project”—a self-driven research project conducted with appropriate supervision in one of the MRSEC labs.

[Summer Training Academy for Research Success \(STARS\)](#)

The STARS program is an eight-week summer research academy for community college students, undergraduate students, recent college graduates, and masters students. Students accepted into the program will gain research experience with a faculty mentor’s research project, GRE prep courses, graduate application assistance, and much more.

[Department of Biomedical Informatics \(DBMI\) at UC San Diego Health’s Summer Internship](#)

A Summer internship offered by the Department of Biomedical Informatics (DBMI) at UC San Diego Health. The opportunity is paid and applicants commit 40 hours/week to a specific project. Applicants need to provide a personal statement, an unofficial transcript, a resume, and at least one, or up to three personal references.

GRADUATE SCHOOL PLANNING

As a transfer engineer, if you would like to have the option to attend graduate school to pursue a Masters or PhD, it is crucial that you get involved in research as early as possible. Some transfer students enter UCSD with previous research experience, however, most students have little to no experience conducting research in their chosen field. As an R1 institution, UCSD is a great place to get involved in hands-on learning and exploring which areas of research excite you the most. It can be overwhelming to get started finding a lab in an entirely new place, but we hope that these resources and guidelines can help you in your search.

Finding a Lab:

- Your department website likely has a list of faculty and a brief description of their current research. Scroll through the website and read about the different kinds of research and make a list of ones that interest you. (You do not need to limit your search to your department alone, and can look at other departments' faculty/labs as well since in most cases, research projects are interdisciplinary and there is a great amount of overlap between different majors). If you already have an idea of the type of research that you would like to get involved in, you could also search google for that topic + UCSD to see which specific labs at our campus are currently working on your topic of interest. Additionally, you can search the REAL portal and HANDSHAKE to see which labs are looking for students.
- Once you have selected which lab to apply to, send an email to the PI (or whoever posted the open position) to introduce yourself and set up a meeting to further discuss the opportunity of working on their research. (It is strongly recommended that you read a few of the most current publications of the lab before reaching out).
- Below is an example of an email to inquire about research involvement:

Dear Professor X,

I hope this email finds you well! I am reaching out to see if you have any positions available for undergraduate researchers in your lab? I am an incoming transfer student majoring in [blank]. I am very interested in the field of [research] and have read several of your publications about [specific topic of interest], and find your research very fascinating and would greatly appreciate the opportunity to work on a project in your lab.

[If you have previous research experience or laboratory skills, write a brief description of them here.]

Ultimately my goal is to pursue a PhD in [field] and I am ready to commit [time (typically 1-2 years but preferably until graduate)] to conducting research that will allow me to gain training in experimental design and analysis and prepare me for graduate school and a long term career in research. I have attached my resume and tentative schedule for the upcoming quarter below for your reference. If you have some time available in the upcoming weeks to meet with me and discuss this further, please let me know!

Thank you for your time and consideration. I look forward to hearing back from you.

Sincerely,

[Name]

[Contact Information]

If you do not feel confident you are qualified to apply for a position, don't worry and apply anyway. Most PIs are looking for students who are motivated and enthusiastic to learn, and will pair you up with people in their lab who can teach you the necessary skills.

Alternative ways to find a lab:

- Every engineering department offers a seminar series that students can attend. These seminars are a great way to learn about current and cutting edge research that is being done in your field. Sometimes the seminar presenters will be from different universities, but sometimes they are faculty members. After the presentations, you can ask the faculty presenter how students can become involved in their research and introduce yourself and ask if you can send them your resume to see if you might be a good fit.
- There are also several programs that aim to get first-year students without any experience involved in research. You may reach out to the coordinators of the program [see section on what is offered at UCSD above] and apply to be part of the program. In many cases, the program coordinators will help you find a research mentor.
- If you are in a class taught by a professor you like, attend their office hours and ask them about their research, and see if they are open to having you join their lab. Additionally, many of your TAs will be graduate students conducting research, and you may ask them if they would like to mentor an undergraduate student.

In addition to having a strong foundation in research, most graduate programs require at least 3-4 references who can write you very strong letters of recommendation and attest to your character and skills. It is not always possible to get to know all your professors and have them know you well enough to write a letter of recommendation, but you should try to build a rapport with at least three faculty members who can speak highly of your academic and professional capabilities.

Personal Statements

Generally, most applications will ask for a personal statement and or statement of intent. A personal statement should primarily focus on how great you are and your accomplishments. A statement of intent should focus on why you are the most fitting candidate for a given program. In both documents you should confidently and enthusiastically describe your best assets and you should aim to tailor your statement to the goals of the program and be as specific as possible. You should highlight what you can offer the program and what you aim to gain from participating in the program. Most programs prefer students who aim to pursue a PhD and a professorship after graduating with a bachelor's degree. In your statement, you should bold/ underline your accomplishments to emphasize them. Additionally, use this document to elaborate on things that you have listed on your resume.

BS/MS PROGRAMS

Most Engineering departments [offer joint B.S./M.S. programs](#) in which students can start taking graduate courses their senior year and conduct research that can be used for a Masters thesis. Students are asked to find a faculty mentor to be their thesis research advisor and committee chair. Each department also has a specific GPA requirement for students to apply to the program. If you are interested in pursuing a B.S./M.S. it is recommended that you join a lab and inform your P.I of your plan during your first so that you can adequately prepare for completing a thesis. Advantages of pursuing this kind of joint program is that it only adds an extra year to your educational plan.

The main disadvantage is the cost associated with Masters, as students enrolled as M.S. are not funded and in most cases receive significantly reduced financial aid. However, you may apply for a TAsip which if obtained will cover most of the cost in addition to providing a monthly salary.

Current UC San Diego engineering students apply to the program through their academic department. Requirements and deadlines vary by department, but typically students apply in their sophomore or junior year. Many applications also require multiple letters of recommendation. Visit the websites below for more information:

- [Bioengineering](#)

Open to "juniors," defined as being enrolled in the "Junior/Spring" quarter coursework according to their major flowchart. Students must have completed their first two quarters of junior year at UC San Diego and have an upper-division GPA and overall UCGPA of 3.5 or better.

- [Chemical Engineering Program](#)

Offered to a UCSD Chemical Engineering student with junior standing who has an upper-division STEM GPA of 3.5 or better and a 3.0 overall UC San Diego GPA.

- [Computer Science and Engineering](#)

Students are required to have a cumulative GPA of 3.4 and a GPA of 3.4 in seven of the upper-division core courses (28 units). Students are recommended to apply during the junior year of their undergraduate study to meet the five-year BS/MS timeline. In some cases, the admissions committee may consider applicants that are senior level in the undergraduate program.

- [Electrical and Computer Engineering](#)

Students should apply at least 4 quarters in advance from their B.S. graduation. There will be two application periods per year: every Fall and every Spring. Requires a 3.0 minimum major and overall GPA (3.4 major and overall GPA to be considered competitive)

- [Structural Engineering](#)

Undergraduate students in the department who have at least 148 quarter units with a cumulative GPA of 3.25 or higher are eligible to apply. For transfer students to be eligible for this program, they must have completed at least two quarters in residence at UCSD and have a GPA of 3.25 or higher.

CAREER PREPARATION AND NETWORKING

[Corporate Affiliates Program \(CAP\)](#)

Corporate Affiliates Program (CAP) has partnership with over 70 companies, from small start-ups to large multinational corporations, that recruit the best engineering talent at the Jacobs School of Engineering.

[CAP Events](#)

CAP partners host events at Jacobs School throughout the year, which include recruiting for internship and job opportunities.

[Team Internships](#)

Unlike traditional programs, the Jacobs School has devised an internship in which multi-disciplinary teams of 2-5 engineering students are deployed to corporate sponsors to work on a project together for 10-12 weeks in the summer. You are hired by the sponsor and paid for the experience. All applications submitted for the summer team internships will be reviewed by the professional corporate relations staff of the Jacobs School. Selections are based upon skills sets required by the company and student leadership experience.

[Cooperative Education \(Co-op\) Program](#)

The Cooperative Education (Co-op) Program is an immersive work experience in which students are employed full-time by a company for up to six months, which includes summer and one academic quarter, to supplement education with real-world experiences. Students who participate in the Jacobs School of Engineering Cooperative Education (Co-op) Program are expected to work full-time (30-40 hours per week) for the duration of their Co-op experience (Summer - Fall Quarter). Participating departments include: Computer Science & Engineering, Electrical & Computer Engineering, Mechanical & Aerospace Engineering, NanoEngineering, and Structural Engineering.

[Jacobs School Job & Internship Portal](#)

All students at the Jacobs School of Engineering have access to the Jacobs School Job & Internship Portal. Companies are utilizing this database to proactively search for the best talent at the Jacobs School to fill their open jobs and internships. On the Jacobs portal, you can create your own profile and resume, view and apply for career opportunities, and gain access to some of the top employers in your field of study. Our staff works with companies to identify the best students for their positions, so be sure to create your profile and keep your information up to date! Access the Jacobs School Jobs/Internship Portal and get ready to launch your career!



Take advantage of your resources at UCSD to network with company and university recruiters to land your dream internship/job. Remember practice makes perfect!

Career Center

The career center, in partnership with different departments and industry members, offers year-round opportunities for employers to meet with thousands of top UC San Diego students and alumni to hire for full/part-time positions and internships.

Career Fairs

The career center typically holds one career fair per quarter. Check their [website](#) for updates at the beginning of each quarter. Even if you are not currently looking for jobs/ internships, it is good to attend career fairs and networking events to learn more about opportunities and career paths available to you, and to practice networking skills and find out what recruiters are looking for!

Career Consulting

Students can schedule a 30 minute 1:1 appointment with a career consultant for advising/coaching

Professional Development

Access a variety of career education events, workshops, and programs around everything from job/internship search to interviewing to graduate or professional school preparation.

Employer Information Sessions

Employers host in-person & virtual forums to keep students informed of job/internship opportunities and their recruitment processes.

On-Campus Interviewing

Employers schedule On-Campus Interviews attached to job postings in Handshake.

Department and Student Led Career Fairs

Additionally, some departments may offer their own career fairs (e.g. Bioengineering). Additionally, several student-led organizations (SWE, ACS, BMES, ISPE, etc.) hold company recruitment events for their members. It is recommended to always have a current and updated resume ready to participate in these events. Not only are these opportunities a great way to make connections, but they are also great to practice networking with professionals and learn ways to make yourself stand out!

WHAT TO INCLUDE ON YOUR RESUME

Building a resume can be intimidating but there are many resources and templates that you can draw from. Below you will find a list of items you should include on your resume as well as some tips to keep in mind as you are writing.

Education

- Lead with your college education (Both where you transferred from and UCSD)
- Include Expected Graduation date
- GPA is optional - Include it if you are proud of it! If you have not taken UCSD classes before list you can list your transfer GPA.

Skills

- Include both Professional and Technical Skills
- Reverse engineer from the targeted Job Description to determine which skills to include
- Order is important - list them from most important to least based on language used in the Job Description.
- You do not need to be an expert to include a skill on your resume
- Professional Skill Examples: Public Speaking, Training, Project Management
- Technical Skill Examples: AutoCAD, MATLAB, Python, Java, Mills/Lathes, Data Analysis, Advanced Excel

Projects

- You don't need to be done with a project to include it
- Big projects (ex. senior design project) and small projects (lab work) can both be added
- Make sure to include:
 - Project Name, role within team or project
 - An overview of what you set out to do or create
 - How you did it, including the technical components
 - Billets found in targeted job description that apply to your work within this project

Professional Experience

- Professional Experience > Work Experience
- Either paid or unpaid
- Focus on accomplishments over responsibility
- Can be gained from a job, student organizations, volunteer positions etc.

Other Optional Components

- Summary of Awards/Achievements
- Leadership
- Volunteer Experience
- Competitions

OTHER PROGRAMS/RESOURCES

Study Abroad

If you are considering taking a quarter abroad, you need to plan ahead. As a transfer student, you will only have 2 to 3 years to complete your degree requirements and graduate. Many engineering departments offer upper division courses once every year, so if you would like to have the opportunity to participate in study abroad programs, you need to decide which program and make a schedule as early as possible. You can schedule an appointment with an advisor from the study abroad program to discuss which program may be the best fit for you and how to finance your trip.

UCDC

UCDC is an academic program that allows students to continue their studies and gain valuable on-the-job experience by completing an internship in Washington, DC. Eligibility requirements to apply for the program are:

- 90 units completed
- At least 2 upper-division courses
- 2.5 GPA (3.0+ preferred)
- US citizenship is not required for the UCDC application
- International students and DACA/AB540/Undocumented students are eligible to apply.
- If you are a student without US citizenship status seeking to apply for UCDC, please refer to the FAQs for more information.

To apply, students need to submit the UCDC Application Form, Resume, Cover Letter or Letter of Intent, One Letter of Recommendation from a Faculty Member. This program has separate "priority" deadlines for each quarter.

Research Experience & Applied Learning (REAL) Portal: You can use your active directory username and password to sign in and view which opportunities have been recently posted. You can search for specific keywords or use the options on the left-hand corner to filter through the opportunities posted. You can also make a profile and have it be visible to faculty and staff who can contact you directly if they feel you are the right candidate for the position they have posted.

Academic Internship Program (AIP)

Offer academic internships that may be taken to receive 196 Academic Credit. Students can utilize the AIP database to search for existing opportunities.

UCSD Extension

Offers a variety of courses from test preparatory courses such as GRE and MCAT, to classes on coding, law, healthcare, and more. UCSD students are eligible to apply for one Extended Studies course grant (\$500) and one Extended Studies test prep course (\$500) grant, for every eligible grant period (total \$1000 grant).

HANDSHAKE

A searchable online database of jobs, internships, and volunteer opportunities used by many on- and off-campus employers and recruiters. Students can login using their single sign-on (SSO) to create a profile and apply to positions. Some positions are only posted on HANDSHAKE and have an internal review process while others might have internal and external components. It is recommended that students keep their profiles up to date and upload a copy of their resume for employers to see.



IDEA Engineering Student Center
UC San Diego
Jacobs Hall (EBU-1)

Phone: (858) 534-6105
Email: idea@eng.ucsd.edu
Website: <http://jacobsschool.ucsd.edu/idea/>

Youtube: <https://www.youtube.com/user/IDEAStudentCenter>
Facebook: <https://www.facebook.com/ucsdidea>
Instagram: <https://www.instagram.com/ucsdidea/>