Vision
The Shiley-Marcos School of Engineering is a community of scholars recognized for developing engineers with technical excellence, global perspective and social awareness.

Mission
The Shiley-Marcos School of Engineering is distinguished by student-centered education that emphasizes modern engineering skills and development of the whole person. We are dedicated to effective teaching, meaningful scholarship and compassionate service.

Our engineering programs are crafted to meet the traditions of USD for quality undergraduate education, the need for a more broadly-educated engineer capable of meeting the future demands and challenges of changing technology in a global economy and society, and the curriculum requirements for professional accreditation. The programs are nine-semester, integrated programs of study leading to a Bachelor of Science/Bachelor of Arts (BS/BA) dual degree in a specified field of engineering. In addition to a sound preparation in engineering science, design, and professional practice, the curricula address written and oral communication, human values and relations, and ethics.

The computer science program is a four-year program leading to either a Bachelor of Science degree, or a Bachelor of Arts degree. Both degrees are rooted in the system of principles and theory that define what computers do. The Bachelor of Arts degree is well-suited for students who want a strong foundation in the fundamentals of computing. Many of these students will complement the degree with minor or second major. The Bachelor of Science degree provides a more comprehensive understanding of computer science and is ideal for the student who envisions a career in the field of computer science.

Unique Features
The engineering programs are undergraduate programs culminating in a unique dual BS/BA degree that is a consequence of the combination of intensive technical education and the USD emphasis on a broad liberal education. Each engineering program has breadth and depth in the engineering discipline, including an extensive laboratory component in outstanding laboratory facilities dedicated to undergraduate instruction. USD engineering students can expect a personalized education in small classes with a curriculum that emphasizes preparation for work in industry and the development of professionalism and values.

Professional Accreditation
The engineering programs are accredited by the Engineering Accreditation Commission (EAC) of ABET, http://www.abet.org, the recognized accreditor of college and university programs in engineering. ABET accreditation
demonstrates the engineering programs’ commitment to providing its students with a quality education. The electrical engineering program, the industrial & systems engineering program, and the mechanical engineering program have each achieved this goal and have been accredited since 1992, 2001 and 2008, respectively. The BS/BA in Engineering degree and BS in Computer Science are pursuing accreditation of their programs.

**Academic Advising**

All students in the Shiley-Marcos School of Engineering are assigned a faculty advisor who tracks the student’s progress toward attaining their degree. The advisor and student work together to ensure that the student is making satisfactory progress toward graduation. First-year students are assigned an advisor when they enroll in an engineering or computer science LLC class during their first semester. The Engineering Advisor also supports students with common advising and registration concerns. Transfer students are initially advised by the Engineering Advisor, Associate Dean of Engineering or the chair of the appropriate program and then assigned a permanent engineering advisor.

**Recommended Prior Preparation**

To complete an engineering program following a standard pattern, incoming students should be prepared to enroll in calculus, English composition, and the third semester of a second language. Background deficiencies in any of the above areas may be removed at USD, but this will increase the minimum requirements for graduation in an engineering major.

Transfer students and other students seriously considering an engineering major are encouraged to contact the Shiley-Marcos School of Engineering to receive academic advising at the earliest opportunity. The first two years of the engineering programs at USD are closely coordinated with those of many community colleges and state universities in California, making it possible to transfer from such institutions to USD with minimal disruption. While the engineering programs are designed to be completed in 9 semesters, students may be able to complete engineering degree requirements in four years with a combination of prior preparation, AP credit and intersession or summer study.

**Support for ROTC Students**

Army, Navy, and Air Force ROTC requirements add 18 to 21 units to the standard program for engineering majors. To meet the needs of the involved officer training corps and the major, students often take classes during Intersession and Summer Session. Students in these programs should consult with their faculty advisor or and Engineering Advisor to identify classes that may satisfy requirements in both their ROTC, and engineering programs. The NROTC scholarship covers the full engineering program. However, benefits beyond four years must be requested through the naval science department.

**Engineering Advisory Board**

The purpose of the Engineering Advisory Board is to help the engineering programs form plans and implement strategies for growth that serve the San Diego technical community while the programs serve the mission of the university. The current board draws its membership from among highly placed leaders in the technical community across several important industries, including telecommunications, energy, aerospace & defense, biotechnology, and semiconductor electronics. Since 1994, the Engineering Advisory Board has helped USD engineering to form plans and implement strategies in the following areas: 1) long-range planning for the continued development of engineering at USD; 2) development and promotion of cooperative programs and relations with industry and the San Diego community; 3) assisting in seeking sources of support for engineering and science programs and facilities; and 4) advising the USD engineering faculty and administration on issues related to the growth and evolution of the engineering program.

**Connect Career Readiness Program**

In addition to completing the university core curriculum and the requirements for their major, each student in the Shiley-Marcos School of Engineering must complete the Connect Career Readiness Program. The Connect Career Readiness Program supports students as they navigate the transition to post-graduate life. Through program events and activities, students will learn to recognize the connections between their interests and academic choices, emphasizing the value of professional development. They will also participate in various types of experiences that will help them explore career opportunities, gain valuable skills, and build professional networks.

**Program Requirements: Complete 12 Connect Points**

The Connect Program requires students to earn twelve compass points including required points which all students complete, and flexible points that reflect their interests.

**Required Points (3 points)**

1. **Connect Orientation**: All students must complete a Connect Orientation
2. **Networking Event**: All students must attend at least one networking event to complete the Connect Program. Networking events have a built-in programmatic element that helps students utilize their community and grow their network.
3. **Senior Graduation Survey**: All students must take the senior graduation survey that is administered through the MySanDiego portal.

**Flexible Points (9 points)**

In addition to required points, students must earn nine flexible Connect points. Points are earned by attending approved networking events, or by completing experiential education activities such as internships, research, or activities with community partners. A student can earn up to three of the flexible points prior to declaring a major.

For more information visit, Connect Career Readiness Program (https://www.sandiego.edu/engineering/resources/careers).

**Residency Requirement**

Computer Science degrees require that a minimum of 15 units of upper division engineering classes be taken at USD. Engineering programs require that a minimum of 24 units of upper division engineering classes be taken at USD.

**Center for Cyber Security Engineering and Technology**

The University of San Diego’s Center for Cyber Security Engineering and Technology (CCSET) is designed to develop and coordinate opportunities for world-class education, research and service to address threats to information systems. CCSET assists business, government, law enforcement, and private
citizens to better prepare and respond to highly motivated, highly trained adversaries who are responsible for billions in lost revenue each year; catastrophic disruptions in service; terrorism and activism; a dark web of criminal activity; and constant peril to critical infrastructure.

University of San Diego’s Center for Cyber Security Engineering and Technology is committed to mitigating cyber security risks developing and coordinating opportunities for education, research, outreach, and service to secure the future prosperity and freedom of in the digital realm. This effort combines the best technology, world-class curriculum and programs, and the mindset to approach the challenge holistically. Stakeholders from engineering, technology, law, policy, business and major industry sectors will all play a role in improving cyber security. USD is committed to uniting these communities to find real solutions, and changing the mentality in cyber security from reactive to proactive.