RECRUITMENT OF FACULTY

The College of Engineering strives to reach underrepresented minorities in the recruitment process for its faculty. A Diversity Advocate is selected to represent minorities for all academic and administrative faculty searches; Search Committees, when considering outreach for their open positions, always determine one or more diversity targeted advertising groups to post their open positions, along with Human Resources posting on Latinos in Higher Ed. The application process for letters of applications/cover letters for faculty positions requires the applicant to indicate how they will contribute to the diversity and excellence of the academic community through their research, teaching and/or service. Faculty job descriptions for web-based job postings and/or print-ads post the following language: “The University of Nevada, Reno recognizes that diversity promotes excellence in education and research. We are an inclusive and engaged community and recognize the added value that students, faculty, and staff from different backgrounds bring to the educational experience.”

K-12 OUTREACH AND RECRUITMENT OF STUDENTS

The CoEN has a very active outreach program to K-12. In addition to other programs, it runs the MESA (Mathematics, Engineering, Science Achievement) program and two summer camps geared specifically towards under-represented populations in engineering.

1. Young Women in Engineering Summer Camp: For young women only! An introduction to engineering including lessons, hands-on activities, and mentoring from professional female engineers, university faculty, alumni, and current engineering students. The Young Women in Engineering camp helps female students to feel comfortable and engaged in Engineering without the pressure that co-gender camps can cause. Young women are mentored in the camp by successful female engineers who are able to guide the young women to STEM careers they can succeed at in the future.

2. Northern Nevada MESA is a college-preparation program that strives to increase college enrollment among minorities, low-income and first generation college students. The MESA program focuses on grades 7-12 Science Technology Engineering and Mathematics (STEM) education. The program offers these students an outlet to explore their options in the STEM field. MESA provides tutoring sessions, fieldtrips, guest speakers and competition support. Students also learn more about scholarships, resume and interview skills, and the application process to ensure success for admissions into the University of their choice.

3. MESA offers low-income, first generation students a free week of engineering summer camp at the University of Nevada, Reno. The students have the chance to be mentored by current UNR CoEN students. The mentors conduct engineering-based activities, provide information about the UNR campus and the five engineering departments, and give a campus tour. The students also tour multiple engineering labs on campus, and work with faculty and graduate students on small projects. The summer camp also takes a fieldtrip to an off-site venue, to talk to engineers in the
field. With the MESA camp, students have the chance to get hands-on experience in the field of engineering.

In addition, the College of Engineering sends out a letter from the Associate Dean of Engineering to all potential undergraduate female applicants about the opportunities that engineering has to offer and inviting them to meet with her at College of Engineering recruitment events held in Las Vegas and Sacramento.

STUDENT ORGANIZATIONS

The CoEN has several active student organizations that are geared towards encouraging the retention of under-represented populations in engineering:

1. SWE (Society of Women Engineers)
   As described directly from their website, SWE (www.swe.org) is a not-for-profit educational and service national organization that empowers women to succeed and advance in the field of engineering, and to be recognized for life-changing contribution as engineers and leaders. SWE is the driving force that establishes engineering as a highly desirable career for women through an exciting array of training and development programs, networking opportunities, scholarships, and outreach and advocacy activities. SWE was founded in 1950 and its goals comprise professional excellence, globalization and advocacy. It has approximately 35,000 individual members and ten geographic regions comprised of 300 collegiate member sections and 100 professional member sections. The mission of SWE is to stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity. The core values of SWE are Integrity, Inclusive Environment, Mutual Support, Professional Excellence and Trust.

   True to SWE’s mission, the UNR SWE collegiate section has the reputation of being one of the most active engineering clubs. SWE members meet regularly every month, attend the SWE National and Regional conferences, organize panel sessions with industry professionals and participate in K-12 outreach activities. SWE organizes the very successful annual event “Evening with Industry” wherein over 200 industry professionals, students, and faculty get together for an evening of networking and dinner and listen to an inspiring keynote speaker, typically a successful woman engineer and/or entrepreneur from the community.

2. WiCSE (Women into Computer Science and Engineering)
   WiCSE (Women Into Computer Science and Engineering) is a group of women that are pursuing degrees and careers in, or related to, computer science and engineering. Their purpose is to foster an atmosphere of academic, social, and community support for current and prospective women in Computer Science and Engineering (CSE). Women who are not Computer Science and Engineering majors but are taking classes and/or have an interest in these fields are also encouraged to join WiCSE. WiCSE has regularly scheduled meetings and study sessions alongside informational and technical lectures to assist women taking computer science and computer engineering courses. For example, we invited Dr. Elizabeth Xu, the Vice
President of BMC and UNR alumni for a career guidance talk “10 Steps to a Successful Career”. These activities, along with planned recreational outings, are intended to help foster interest, knowledge and camaraderie for members of WICSE. Springtime signifies the Most Significant Bit annual event hosted by WiCSE. The Most Significant Bit (MSB) event’s goal is to introduce young women to the possibilities that exist in the field of computer science and engineering. The 2017 MSB event was held at the College of Engineering, attracting over 50 middle and high school students. Helped by WiCSE and CSE students, attendees participated in activities ranging from Drone and Virtual Reality Zones to Robots, Maker Space, and 3-D Printing to an Hour of Code.

3. **SHPE (Society of Hispanic Professional Engineers)**
The Society of Hispanic Professional Engineers (SHPE) is a national organization of professional engineers to serve as role models in the Hispanic community. SHPE has a strong independent network of professional and student chapters throughout the nation. SHPE changes lives by empowering the Hispanic community to realize its fullest potential and to impact the world through STEM awareness, access, support and development. SHPE's vision is a world where Hispanics are highly valued and influential as the leading innovators, scientists, mathematicians and engineers. At UNR, SHPE is not active this academic year (2017 – 2018). Last activity was during the spring semester this year. The faculty advisors have decided to try to jump start the chapter again during the spring semester of 2018. One of the main challenges for the chapter has been member recruitment and continuous leadership of the government body. They faced similar issues in the past with the chapter. They are planning for an organizing meeting with Hispanics students in the College sometime during spring semester 2018.

**EDUCATIONAL INITIATIVES AND ENGINEERING EDUCATION RESEARCH/GRANTS**

1. Dean Maragakis has had discussions with the Dean of the College of Liberal Arts about future course offerings for engineering students that will include contemporary issues including diversity.

2. Assistant Professor Adam Kirn is working on the following projects:
   (i) First generation engineering identity, development and belongingness
   (ii) First year course ENGR 100 students ability to develop multicultural openness and diversity sensitivity after being put in diverse teams (funded by the NSF) – graduate student presented a paper and won best paper award at the 2017 Frontiers in Education conference, Indianapolis
   (iii) Investigating attitudinal diversity instead of looking at traditional social demographics (funded by the NSF)
   (iv) Graduate student experiences to understand how to better recruit and retain international vs domestic students (funded by the NSF)
   (v) Constructed surveys with a broader range of demographics to better understand students identity so as to better address their unique experiences (funded by the NSF)
   (vi) How engineering experiences influence student identity development in K-12 (title I schools)
(vii) New scholarly endeavors grant (VPRIs office) with David Feil-Seifer on using robotics to develop disability sensitivity

3. Associate Dean Indira Chatterjee has been awarded an NSF grant through the PFE:RIEF program (Co-PIs: Dr. Jenny Amos, University of Illinois, Urbana-Champaign, and Dr. Adam Kirn), with start date January 1, 2018, to study engineering identity development in the Young Women’s engineering summer camp and First Generation Engineering summer camp.

SCHOLARSHIPS

Many of the College of Engineering scholarship offerings involve awards to students with diverse backgrounds. Included in this diversity of offerings preference is given to:

Women/female students, students who have verbal and written skills in a language other than English, Native American heritage or descent, rural Nevada residents, students with family responsibilities, minority students (underrepresented groups), married students, international students, African-American, Hispanic, Asian and Pacific Islander, and first generation college students.

This 2017/2018 academic year, 17 out of 93 (18%) of the college of engineering named scholarships required that preference be given to students from these diverse groups listed above.