Professional Organizations

Why Join an Engineering Professional Organization Student Chapter at BCOE?

Extracurricular activities in the College offer you the opportunity to engage in professional development, learn leadership skills, and make life-long friends. The Bourns College of Engineering has 14 organizations, a Leadership Council, and an Honor Society that offer social activities, projects, and opportunities to attend regional and national conferences.

ACM – Association for Computing Machinery
http://www.acm.cs.ucr.edu
The Association for Computing Machinery (ACM) is devoted to bringing Computer Science students beyond the classroom into the real world. It focuses on professional development, leadership, and academic growth. Offerings include research projects, involvement with the national ACM, and industry connections.

ASME – American Society of Mechanical Engineers
http://www.engr.ucr.edu/~asme
ASME strives to prepare its members to be successful and responsible engineers. It offers engineering students a unique opportunity to network with fellow classmates, faculty, and industry. Each year, ASME participates in one major intercollegiate competition, the Human Powered Vehicle Challenge. This requires ASME members to use modern computer modeling software to design a bicycle with an aerodynamic body. Members then fabricate a working bicycle from their design and race it against schools from across the west coast region.

AICHE – American Institute of Chemical Engineers
http://www.engr.ucr.edu/~aiche
Membership in the American Institute of Chemical Engineers (AIChE) is open to all chemical, bioengineering and environmental engineering students. Its primary goal is to ease the transition from college to career. AIChE plants industry trips, hosts guest speakers, and facilitates graduate student and professor informal gatherings. At the regional and national levels, AIChE sponsors member attendance at conferences. AIChE appears at campus outreach events making and serving its popular liquid nitrogen ice cream.

AWMA – Air & Waste Management Association
http://www.awma.org
AWMA is an interdisciplinary club consisting of members from across the environmental fields (science, toxicology, and engineering). It deals with the study of current environmental issues and the technology in place being researched to deal with these issues. It is a highly active and growing club, offering professional test preparation for engineering students and participation in Engineers Week. Goals include outreach to high schools and becoming more active in environmental research and remediation.

BMES – Biomedical Engineering Society
http://www.engr.ucr.edu/~bmes
BMES integrates biology and engineering in all their practical applications. BMES provides a comfortable environment for students to network and learn about graduate and vocational school opportunities in their field of study. Activities include outreach to the community, guest speakers, field trips, workshops, and peer tutoring.

COELC – College of Engineering Leadership Council
http://www.engr.ucr.edu/~coelc
COELC is an organizing body that encourages an active relationship between all student organizations and the BCOE. Its goals are to build a strong community within the College, to offer leadership training to organizations and to implement three major social activities per year.

IEEE – Institute of Electrical and Electronic Engineers
http://www.engr.ucr.edu/~ieees
IEEE strives to provide students with professional development and academic achievement opportunities. Activities include hands-on robotics workshops, allowing students to apply their in-class knowledge; intramural sports to encourage interaction with campus society; IEEE national competitions to interact and compete with IEEE members from other schools; professional development events to facilitate the transition from school to the workforce; and outreach events in the local community.

M.E. GSA – Mechanical Engineering Graduate Student Association
http://www.engr.ucr.edu/~megsa
M.E.GSA promotes social and academic aspects of the Mechanical Engineering graduate student life at UCR and increases student involvement in the local community. M.E. GSA also represents M.E. graduate students’ concerns and strives to promote the well-being of the Department of Mechanical Engineering, the Bourns College of Engineering, and the campus as a whole.

NSBE – National Society of Black Engineers
http://www.engr.ucr.edu/~nsbe
NSBE is well known for being an organization that truly fulfills its mission statement: excelling academically, succeeding professionally, and positively impacting the community. Several of its members have gone on to obtain a Ph.D. NSBE also offers scholarship awards, opportunities for community service, social events, study jams, and participation in national and regional conferences.

SAE – Society of Automotive Engineers
http://www.engr.ucr.edu/~sae
SAE competes in two national events each year, Mini Baja and Formula SAE. Each event is an intercollegiate engineering design competition sponsored by the Society of Automotive Engineers (SAE). Students design, fabricate and assemble the entire vehicle using state-of-the-art software and equipment made available by the Mechanical Engineering Department at UCR. Students also work in teams to develop valuable skills in communication, time management, budgeting and meeting deadlines.

SHPE – Society of Hispanic Professional Engineers
http://www.engr.ucr.edu/~shpe
SHPE has received numerous club honors and recognition. Professional and leadership development is a major objective. Members see SHPE as their ‘home away from home.’ Scholarships, community service, tutors, and participation in national and regional conferences are hallmarks of the club. SHPE at UCR developed an academic excellence program now in use in all SHPE chapters across the nation.

SWE – Society of Women Engineers
http://www.engr.ucr.edu/~swe
SWE encourages young girls and undergraduate women to pursue careers in engineering through the development of programs that enhance their leadership, communication, and problem-solving skills. SWE promotes the engineering profession as a positive force within the College through community service and outreach. There are also opportunities to attend regional and national conferences where many of the members find jobs and meet women engineers. The club holds quarterly social events. Membership is not limited to women; men are encouraged to join too.

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Research Opportunities

Undergraduate research is a strong tradition at Bourns. Our students frequently co-author original research papers with faculty. Few other top-tier research institutions can match our commitment to having undergraduate students participate actively in the broad range of research under way across the College.

Bourns has more than $30 million in sponsored research per year, and boasts some of the most active laboratories in the nation. Our undergraduate have real opportunities to participate in and contribute to the range of innovative work undertaken in these laboratories. In addition to faculty research laboratories, research opportunities are also available in our College’s numerous and active research centers, such as the College of Engineering-Center for Environmental Research and Technology (CE-CERT). For example, J. Wayne Miller, manager of the Emissions and Fuels Research Lab at CE-CERT, recently was awarded the University’s Distinguished Research-Instruction Collaboration Award. He has supervised or co-supervised more than 20 undergraduates on work like the first comprehensive on-board testing of emissions from ocean-going vessels.

Undergraduate research provides an excellent training in innovation, which is the central theme of engineering. Undergraduates become part of a team of researchers that includes graduate students, post-doctoral fellows, and faculty. This provides important teamwork skills.

Bourns College of Engineering has one of the most comprehensive and aggressive career development and job search programs available. Beginning at new student orientation and continuing through Commencement, students have access to advising and activities focused on career exploration and development, throughout the College and UCR’s Career Center, and guides students through UCR’s recruiting resources, including:

- On-campus recruiting, including career fairs and company information sessions;
- UCR SCOTlink, an online system for researching industries and employers, networking with over 3,000 employers, and searching and applying for jobs;
- UCR Alumni Association, connects students to UCR alumni for guidance and networking;
- Career coaching relating to résumé and cover letter critique services, interview coaching, negotiation discussions, career changes, career decisions, career exploration, networking;
- Assessments including the MBTI, Strong Interest Inventory (SII), and Type Focus to help students identify how their personality and interests may play into their career decisions;
- Workgroups, a support system to help students stay on track, motivated and focused with quantifiable objectives during the job search process;
- Special Engineering-only networking events such as Career Connection Night with industry and alumni professionals.

Career Development

In addition to preparing our students to be professional engineers of the future, an important goal is to prepare our graduates to be exceptionally qualified to pursue employment opportunities. This comes from our rigorous and comprehensive curriculum yes, but it also requires that students take advantage of our professional development programs. These include the Professional Development Milestones program, the IMPACT (Industrial Mentorship in Professional Advancement and Career Training) Program, undergraduate research programs, professional organization student chapters, mock employment interview sessions, and other career preparation opportunities.

The College provides a professional development officer to create and maintain relationships with premier industrial, academic, and government organizations, as well as facilitate student organizational events and conferences. He also advises engineering students on professional career opportunities, and assists students in seeking information on career options and their career development processes.

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Bourns College of Engineering

Professional Development Programs

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