get involved

More than 50 engineering-specific student organizations and teams call the Ira A. Fulton Schools of Engineering home. Ranging from honors and professional societies to groups programming robots or building race cars, students are closing the gap between the classroom and the workplace through participation in student organizations and competitive teams.

At Fulton Engineering, you are encouraged to reach out, give back and have fun—to get involved.

Now is the perfect time to find and join a student organization. Getting involved now will lead to lasting friendships, better career opportunities, a connection to our community that will last beyond graduation, and maybe even better grades!

Beyond joining a club, you can develop leadership skills by leading a committee or becoming an officer. Or, you can get practical experience by joining a club with competitive teams. Just looking to make friends? Social and cultural student organizations hold many events during the school year.

Whatever you're looking for in a student organization, there's a match for you at Fulton Engineering.

engineering student organizations

Fulton Schools of Engineering Student Council
Advancing Women in Construction
Air Devils
American Concrete Institute
American Indian Science and Engineering Society (AISES)
American Institute of Aeronautics and Astronautics (AIAA@ASU)
American Institute of Chemical Engineers (AIChE)
American Society of Civil Engineers (ASCE)
American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRACE)
American Society of Mechanical Engineers (ASME)
Associated General Contractors (AGC) of America Student Chapter
Association for Computer Systems Security
ASULUG
Biomedical Engineering Society (BMES)
Chi Epsilon
Construction Graduate Network
Construction Students Abroad
Daedalus Astronautics
Engineering World Health
Engineers Without Borders
EPICS Maroon
Eta Kappa Nu, International Honor Society for Electrical Engineers
Fulton Ambassadors
Grand Challenge Scholars Alliance
iGEM
Institute for Operations Research and Management Science (INFORMS)
Institute of Electrical and Electronics Engineers (IEEE)
Institute of Transportation Engineers (ITE)
Institute of Industrial Engineers (IIE)
International Council on Systems Engineering—Student Chapter (INCOSE)
International Facility Management Association (IFMA) Phoenix Student Chapter
Inventors Workshop
MAES at ASU–Latinos in Science and Engineering
Material Advantage at ASU
NASA Space Grant Robotics
National Society of Black Engineers (NSBE)
North American Society of Trenchless Technology
Sigma Lambda Chi, ETA Chapter, International Construction Honor Society
Society of American Engineering
Society of Asian Scientists and Engineers-ASU Chapter
Society of Automotive Engineers (SAE@ASU)
Society of Hispanic Professional Engineers (SHPE de ASU)
Society of Women Engineers (SWE)
Software Developers Association at ASU (SoDA)
Students for the Exploration and Development of Space (SEDS) at ASU
Sun Devil Robotics Club
Sun Devil Satellite Laboratory (SDSL)
Tau Beta Pi
Theta Tau
Women in Computer Science (WCS)
Fulton Schools of Engineering Student Council
studentorgs.engineering.asu.edu/esc
advisor: Stephen Rippon, assistant dean, recruitment, outreach and student engagement

The Ira A. Fulton Schools of Engineering Student Council (FSESC)’s mission is to unify engineering student organizations; connect Undergraduate Student Government and Fulton Engineering students; promote freshman leadership development; manage programs that benefit engineering students and faculty; foster open communication between the engineering student body, organizations and administration; and establish traditions to promote engineering pride.

FSESC provides student leadership opportunities that effectively cultivate the next generation of engineering leaders. By working with the Engineering Student Organizations as a consultant and advocate, FSESC members practice and improve their skills in communication, time management and project planning—the soft skills that are vital to future success. Depending upon members’ positions, they can also practice project management, proposal writing and leadership skills that are expected of the next generation of engineers.

FSESC outreach programming includes our 20-foot tall trebuchet, “Sheila.” After presenting the history and engineering behind a trebuchet, her capabilities are demonstrated by launching cantaloupes, pumpkins or soccer balls at targets.

Over 2,000 elementary and middle school students and their teachers have seen Sheila at Engineering Open House.

FSESC was proud to receive a first-place award in the 2012 Homecoming Parade Float Competition.

For the first time in over a decade, FSESC hosted the National Association of Engineering Student Councils West Region Conference. Seventy delegates from 11 different universities attended tours, breakout sessions and banquets. Attendees reported that this conference was the best NAESC West Region Conference in recent memory.

FSESC sent 12 delegates to the 2013 NAESC National Conference, held at the University of Illinois, to exchange ideas, learn about leadership and improve themselves. Four were elected to the NAESC West Region Executive Board, making FSESC a major player in NAESC and the West Region.

Air Devils
studentorgs.engineering.asu.edu/airdevils
advisor: Timothy Takahashi, professor of practice

Air Devils’ vision and mission is to provide students with an opportunity to learn and take part in aircraft design and thereby develop engineering skills outside of the classroom.

Our goals are to develop aircraft for international competition that compete with the top ten entries, educate students on aircraft flight and design, and help students develop engineering skills.

Air Devils provide students with a variety of technical skills. Some of these skills are how to use CAD software, structural analysis, aircraft sizing, aerodynamic analysis and developing flight control systems. Professionally, members have opportunities to interact with alumni, industry professionals, and ASU faculty and staff. Lastly, any member can run for office, and those in leadership positions learn how to organize and manage a team in order to complete a project on time.

In the 2012-2013 school year, Air Devils developed aircraft for two competitions, the AIAA DBF and AUVSI Seafarer competitions. The club completed its first successful autonomous flight, having a quadcopter take-off, travel to designated waypoints—and land—all on its own. Air Devils was also selected as the “Most Active Engineering Student Organization” by the Ira A. Fulton Schools of Engineering.

For 2013-2014, Air Devils wants to rank in the top ten teams internationally in both the AIAA DBF competition and the AUVSI Seafarer competition. The club also wants to retain more active members, and is currently developing methods to better educate and engage members. Lastly, Air Devils plans to once again be the most active engineering student organization.
American Indian Science and Engineering Society
advisor: Michael Begaye, director, American Indian Student Support Services
The American Indian Science and Engineering Society (AISES) is a national nonprofit organization that nurtures the building of community by bridging science and technology and traditional Native values. Through our educational programs, AISES provides opportunities for American Indians and Native Alaskans to pursue studies in science, engineering and technology arenas. The trained professionals that we produce then become technologically informed leaders within the Indian community. Our ultimate goal is to serve as a catalyst for the advancement of American Indians and Native Alaskans as they seek to become self-reliant and self-determined members of society.

American Institute of Aeronautics and Astronautics
aiaa.engineering.asu.edu
advisor: Valana Wells, associate professor
The American Institute of Aeronautics and Astronautics (AIAA) at ASU is a student branch associated with the Phoenix Section of the American Institute of Aeronautics and Astronautics. We are committed to increasing student involvement within the aerospace community and the greater student body as a whole. Our primary goal is to connect students interested in aerospace with other students and with professionals in the aerospace industry.

By joining AIAA, members gain opportunities to network with other students and professionals at our monthly meetings. During 2012-2013, AIAA@ASU and the Phoenix Section cohosted the March Distinguished Lecturer Dinner meeting. Roger Launius, Ph.D., spoke about the Space Shuttle and the important role it played for America’s space exploration strategy. He is associate director of Collections and Curatorial Affairs at the Smithsonian Institution’s National Air and Space Museum in Washington, D.C.

AIAA@ASU goals for next year include increasing our active membership by hosting interesting monthly guest speakers and to continue to develop our tabletop wind tunnel outreach project.

American Institute of Chemical Engineers (AIChE)
aiche.asu@gmail.com
advisor: César Torres, assistant professor
The objectives of AIChE @ ASU are to promote student interaction between chemical engineering students and industry, assist students’ transitions into college and the field of chemical engineering, provide a medium for students to get to know other chemical engineering students, maintain a high professional standard among its members, and to improve student familiarity with real-world work environments.

Our primary goals are to:
• Promote the professional development of its members by its programs and by its relations with other student chapters and the national organization.
• Contribute to the development of the School for Engineering of Matter, Transport and Energy through activities involving industrial representatives, faculty and student members.
• Provide the tools necessary so members become engaged in a process of lifelong learning and ongoing relationship with AIChE.
• Compete regionally and nationally at Chem-E-Car Competitions.

AIChE members gain leadership, communication and networking skills while building a circle of friends and professional connections in chemical engineering. Members of the AIChE Chem-E-Car teams build team skills and hands-on experience.

AIChE members volunteer at outreach events on campus each year.

In fall 2012, we placed eighth in the national Chem-E-Car Competition in Philadelphia, Pa. We also developed a number of new industry connections, including with Henkel, Intel, SRP and APS. In addition, we held a number of social events, including an ice cream/game social, a bowling social and a graduation celebration social.

During 2013-2014, AIChE plans to:
• Connect with other school chapters.
• Offer additional outreach events for members.
• Develop a website to increase membership.
• Compete in the Chem-E-Car Regional Competition in spring 2014.
American Society of Civil Engineers (ASCE)

studentorgs.engineering.asu.edu/asce
advisors: Chris Lawrence, lecturer and Kamil Kaloush, associate professor

As engineers it is important to use our time and skills to improve the quality of life for others while demonstrating a stewardship for our community and environment. ASCE's primary goals for 2013-2014 are to increase student development; prepare students for industry; and increase our social networking presence.

We will increase tours and outreach events, involvement in the Future Cities program, relationship-building with YMF and AzSCE members, as well as focus on fundraising.

ASCE members can participate in the following activities:

- Outreach events: get involved in the community outside the realm of engineering. The technical tours are a great supplement to the classroom because it gives students an opportunity to see construction and engineering practices at work.

- Community involvement: allows members to give back to surrounding neighborhoods and instill a sense of accomplishment. Also, given that it is the civil engineer’s duty to promote the welfare of the public, serving the community at this stage in life will set the foundation for future success.

- Social events: give members an opportunity to engage in something unrelated to the stresses of school. These events also allow them to interact and connect with fellow members and members in other organizations, such as Chi Epsilon and the Phoenix Younger Members Forum (YMF).

- Workshops: great resource for students to learn how to present themselves on paper and in-person during the interview process.

- Networking at the ASCE career fair: gives students a better understanding of the interview process.

ASCE aims to help members develop academically and socially while contributing to the surrounding community, which is demonstrated in our past projects and accomplishments. For the past three years, the ASU ASCE chapter received “Certificate of Commendation” from the ASCE National Headquarters in recognition for the chapter’s outstanding activities. ASCE has also successfully participated in the regional Pacific Southwest Conference to compete in engineering based competitions, against 18 other universities in the southwest region.

Also, ASCE focused our community outreach efforts on K-12 population and Science, Technology, Engineering and Math (STEM)-related activities such as Future Cities and Engineering Day.

Our most notable effort was through the Future Cities Competition, which allowed ASCE members to volunteer as Future Cities judges, partner with teachers around the Phoenix metropolitan area and mentor middle school students. Our engineering related activities and mentorship fostered an interest in the engineering field for many students.

American Society of Mechanical Engineers

studentorgs.engineering.asu.edu/asme
advisor: Veronica Santos, assistant professor

Our vision, as the ASU Student Chapter for ASME, is to bring students to the awareness of practical application in engineering of academic principles learned in classes. Our mission is to promote the art, science and practice of multidisciplinary engineering and allied sciences around the globe.

Our primary goals are to provide opportunities for growth to every student who is willing to put in the effort. ASME members gain practical experience, résumé building material and leadership opportunities.

We attended the ASME Human-Powered Vehicle Competition for the first time in spring 2013. Our team took fourth place during the men’s speed event, and our women’s team placed eighth.

ASME's goals for 2013-2014 are to increase membership, and prepare for the competition with enough time to build our vehicle next year.
Associated General Contractors (AGC) of America Student Chapter
advisor: Aaron Cohen, lecturer
The Associated General Contractors of America (AGC) is a membership organization dedicated to furthering the ever-changing agenda of commercial construction contractors, improving job site safety, expanding the use of cutting-edge technologies and techniques, and strengthening the dialogue between contractors and owners. The ASU student chapter of AGC is dedicated to linking ASU students to the industry within the Phoenix metropolitan area.

Our student members have opportunities to advance their education in and out of the classroom, including résumé workshops, networking events, internship opportunities, career fairs, guest speakers, job site visits, volunteering and the Associated Schools of Construction RENO Competition.

ASU Linux User's Group (ASULUG)

asulug.org
advisor: Kevin Burger, lecturer
The Arizona State University Linux User’s Group (ASULUG) is an organization of Linux operating system enthusiasts. Unix and Unix-like (FreeBSD, NetBSD, OpenBSD, GNU, Plan 9, etc) devotees are welcome as well. We pursue all things Linux and Open-Source with an emphasis on further Linux/Open-Source awareness, assisting those new to Linux and furthering Linux development through hack-a-thons. ASULUG members gain a greater understanding of Linux and open source development. Students interested in software development or open-source technology are encouraged to join. By joining the ASULUG mailing list, members have access to a knowledge base for Linux integration issues.

Regular activities include hosting InstallFest twice a year (which features food, fun and contests) to help anyone interested in installing Linux on their personal computer system, meetings and other events. During spring 2013, we built a beagle board cluster computer and demonstrated it at the Engineering Open House. ASULUG’s goals for 2013-2014 are to increase involvement with the Security Club on campus to launch a new Capture the Flag event.

Biomedical Engineering Society (BMES)

studentorgs.engineering.asu.edu/bmes
advisor: Sarah Stabenfeldt, assistant professor
The purpose of the Biomedical Engineering Society is to foster a general interest in the field of biomedical engineering and medicine while providing academic and career opportunities.

BMES's primary goal is to support BME students with academic and career opportunities. We also want to help students develop professional relationships with industries and promote networking between students, faculty and industry professionals.

We invite industry representatives to speak at meetings to help students gain employment after graduating. Networking is an essential tool that BMES focuses on to provide a great future for members.

BMES executive officers gain leadership experience through planning and executing events, meetings and tours. Members will gain technical knowledge about medical devices if they attend our monthly volunteer event at Project C.U.R.E. Finally, members develop mentoring relationships outside the classroom setting.

Throughout the year, BMES volunteers with the Engineering Student Council outreach efforts to K-12 schools as well as the ASU community.

For 2013-2014, BMES plans to partially fund board members’ attendance at the BMES conference to highlight ASU; improve our membership outreach and retention efforts; and coordinate an outreach event with pre-college students.
Chi Epsilon
chiepsilonasu@gmail.com
advisor: Chris Lawrence, lecturer
Chi Epsilon's mission is to reward top civil engineering students by providing them with opportunities to expand their education by helping them become acquainted with industry professionals, as well as other top students. Chi Epsilon attempts to provide its members with tools and resources that will help them succeed in school and beyond.

Chi Epsilon wants its members to learn how their education will translate to life after Arizona State University. We also want them to know all of the avenues and resources that are available to them as they attempt to move forward in life.

Members have the opportunity to gain leadership experience by helping out within Chi Epsilon. They are also provided with knowledge, as they are provided with opportunities to learn from working civil engineers from throughout the valley. They are also able to attend review sessions for the Fundamentals of Engineering Exam in order to brush up on their knowledge prior to the exam.

The national Chi Epsilon organization awards members throughout the country with scholarships each year. This year, two of our members were awarded scholarships. Nick Partridge and Saeed Mohammad will be continuing their education in the fall in master's programs.

Next year, we would like to get Chi Epsilon members more involved with off-campus community volunteer opportunities.

Daedalus Astronautics
daedalus.engineering.asu.edu
advisor: Valana Wells, associate professor
Daedalus's mission is to provide our students with out of classroom opportunities to learn about rocketry and engineering. Daedalus is dedicated to the design, manufacture and launch of sounding rockets. In addition, we perform math, science and engineering educational outreach in the community.

Daedalus members complete rocket-related activities, including flying rockets, conducting propulsion research or completing STEM-based outreach. They also gain leadership skills, advanced technical knowledge, incredible résumé building opportunities, a fantastic network of engineers, camaraderie and a chance to give back to the community.

During 2012-2013, we completed at least 12 outreach events impacting over 3,000 students across Phoenix. We also received three awards at the AIAA Region VI Student Conference. We won first place for outreach, third place in the individual category and third place in the team category. We also received several company-level sponsorships.

For 2013-2014, Daedalus plans to continue our award-winning outreach program, maintain current membership levels, compete nationally with research and possibly a rocket competition, and to attempt a flight of over 100,000 feet in September.

Engineering World Health
advisor: James Abbas, associate professor
Engineering World Health's mission is to design medical devices that impact resource-poor communities and to enrich the professional lives of EWH members and give them practical, real-world experience.

EWH members are provided with opportunities to gain professional development, technical knowledge, leadership skills and practical experience for the professional world. Recently, we volunteered with the Fulton Engineering Student Council to impact K-12 schools and the ASU community. For 2013-2014, EWH plans to increase membership, participate in a Pitch Panel to present design ideas, and travel to a resource-poor country.

Engineers Without Borders
studentorgs.engineering.asu.edu/ewb
advisors: Amy Landis, associate professor and Kristen Parrish, assistant professor
Engineers Without Borders (EWB) envisions a world in which the communities we serve have the capacity to sustainably meet their basic human needs, and that our members have enriched global perspectives participating in the innovative professional education opportunities provided by the EWB-USA program. EWB-USA supports community-driven development programs worldwide by collaborating with local partners to design and implement sustainable engineering projects, while also
creating transformative experiences and responsible leaders.

Our organization’s primary goal is to create a more stable and prosperous world by addressing basic human needs, such as clean water and energy, through sustainable engineering and education.

Our members can gain a wide variety of experiences including, but not limited to: project management, leadership, site management, technical knowledge, hands-on construction training and professional development and networking. We actively participate in the annual Engineering Open House and various public exhibits.

During the 2012-2013 academic year, EWB successfully implemented a 76,000 liter rain water catchment tank in Bondo-Rarieda, Kenya; anticipated travel to Bondo-Rarieda, Kenya, for implementation of reinforced concrete spillways for surface dam rehabilitation in the summer of 2013; began work with the Havasupai Tribe on behalf of the Fulton Schools of Engineering; was awarded the 2012-2013 Best Engineering Student Organization Fundraising Event for the Kenya Dig It? 5K Fun Run, and Brittany Duong was awarded the 2012-2013 Outstanding Engineering Emerging Student Organization Leader.

Some of our 2013-2014 goals include: increase membership, build stronger relationships with other EWB AZ student and professional chapters, develop a new project with the Bondo-Rarieda community and find local projects.

**EPICS Maroon**

advisor: Scott Shlake, EPICS director

EPICS Maroon provides community service opportunities focused on addressing the source of a problem, and making an immediate, meaningful impact on our community. We hold networking events, social events, fundraising opportunities, EPICS teambuilding and outreach events. Students do not need to be part of the Engineering Projects in Community Service program to join the EPICS Maroon organization.

**Eta Kappa Nu, International Honor Society for Electrical Engineers**

hkn.club.asu.edu

advisor: Stephen Goodnick, professor

Eta Kappa Nu is a unique membership organization dedicated to encouraging and recognizing excellence in the electrical and computer engineering fields. Members are students, alumni and other professionals who have demonstrated exceptional academic and professional accomplishments.

Eta Kappa Nu’s primary goals are to increase the number of initiates each semester, host more events for our members, become more active with the Fulton Schools of Engineering, and volunteer and organize more community service events and activities.

Members who join Eta Kappa Nu are given great opportunities to become an officer and improve or develop their leadership skills, to network with top students in their majors as well as with employers and professors, and to learn more about the industry through tech talks and info sessions with companies.

In spring 2013, we were awarded the Industrial Relations Award and Outstanding Engineering Student Organization Award.

**Fulton Ambassadors**

engineering.asu.edu/visit

advisor: Art De La Cruz, Coordinator, Sr.

Fulton Ambassadors are students who volunteer their time to promote the Ira A. Fulton Schools of Engineering at Arizona State University. We represent all majors in Engineering and share the ASU experience from a student’s perspective. We give tours to guests and speak at outreach, recruitment and special events.

**International Genetically Engineered Machine (iGEM)**

studentorgs.engineering.asu.edu/igem

advisor: Karmella Haynes, assistant professor

The ASU International Genetically Engineered Machine (iGEM) team seeks to harness the potential of synthetic biology to engineer solutions to the world’s major problems. Our primary goal is to design and develop novel applications of genetic engineering to solve major global problems.
via 100 percent student-driven research.

Our team members gain significant research experience and technical knowledge from an immersive lab environment throughout the summer, the opportunity to foster leadership skills both in and outside of the research lab, the chance to meet and network with fellow students interested in synthetic biology from all around the world, and the ability to develop their public speaking skills by presenting their research to some of the world's top researchers and industry professionals in the field.

During the 2012-2013 year, our group mentored high school research interns from Bioscience High School throughout the summer and taught them various lab techniques and skills to encourage their interest in synthetic biology. We also mentored Bioscience High School's iGEM team.

Our team traveled to the Americas West Regional Jamboree in October 2012 and received the following awards: Advanced to iGEM World Championship (selected as one of only eight teams in the Americas West region to advance to the World Championship at MIT); iGEM Americas West Gold Medal; and iGEM Americas West Best Human Practices Advance (selected as the team with the best approach towards translating advances in biotechnology to real-world use). We then traveled to MIT in November for the iGEM World Championship and received an honorable mention for our Human Practices efforts.

Our goals for 2013-2014 are to increase our outreach efforts to reach more high schools, win the Americas West regional competition and place at the iGEM World Championship.

Institute of Electrical and Electronics Engineers (IEEE)

sites.ieee.org/sb-asu
advisor: Cihan Tepedelenlioglu, associate professor

The Institute of Electrical and Electronics Engineers (IEEE)'s core purpose is to foster technological innovation and excellence for the benefit of humanity.

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

IEEE's primary goals are to assist our members to develop outstanding technical and soft skills and to apply those skills to create effective solutions for the problems of their community. As a result, we help our members to be technically advanced, professionally astute and community oriented.

Our current community outreach activities are geared toward volunteering for the Engineers Day and Girls in STEM events.

During 2012-2013, IEEE earned the IEEE Phoenix Section 2013 Outstanding Student Branch and Leadership Award. For 2013-2014, we plan to recruit more members by increasing the awareness of impact of IEEE on our community.

Institute of Transportation Engineers Student Chapter

asu-ite.weebly.com
advisor: Ram M Pendyala, professor

The mission of the ASU-Institute of Transportation Engineers (ITE) is to aid our fellow students in learning more about the profession and finding jobs and internships while at the same time attracting others to the field of transportation. ITE's primary goal is to promote professional development of its members, encourage education, stimulate research in the transportation field and provide networking opportunities with the professionals in academia and industry.

By joining ITE, members:

- Can compete for officers’ position which will improve their leadership qualities.
- Can gain technical knowledge from the technical seminars we organize.
- Are eligible for the travel grants (contingent on funding).

Overall, ASU-ITE is a great platform to build connections with industry as well as professionals from academia. For instance, during 2012-2013, ASU-ITE:

- Was awarded two data collection proposals by national and western ITE for the academic year.
- Was apportioned funds from GPSA and ASASU to organize technical seminars.
- Our members have been awarded with travel grants for their service and research work.
Our goals for 2013-2014 are increasing the membership of undergraduate students and focusing more on fundraising and community service activities.

Institute of Industrial Engineers

studentorgs.engineering.asu.edu/iie
advisor: Jing Li, assistant professor

The Institute of Industrial Engineers (IIE) is the world’s largest professional society dedicated solely to the support of the industrial engineering profession and individuals involved with improving quality and productivity. Founded in 1948, we are an international, nonprofit association that provides leadership for the application, education, training, research and development of industrial engineering as well as corporate and peer connections. We are the global association of productivity and efficiency professionals specializing in industrial engineering, healthcare, ergonomics and other related professions. Our mission is to advance our profession through networking, training and knowledge sharing, while our primary goals are to offer members networking and training opportunities.

For 2013-2014, IIE plans to:

• Strengthen networking by having industry speakers recruiting IIE members for internships and full-time positions. Have speakers from semiconductor manufacturing, healthcare, consulting, banking and virtually every industry that IEs touch.
• Provide training opportunities through subsidized industrial engineering conferences, discounted seminars and certification opportunities.
• Improve camaraderie in the IE program by building a social network full of driven, accomplished students.

MAES at ASU – Latinos in Science and Engineering

studentorgs.engineering.asu.edu/maes
advisor: Armando Antonio Rodriguez, professor

MAES is the foremost Latino organization for the development of STEM leaders in the academic, executive and technical communities. Our mission is to promote, cultivate and honor excellence in education and leadership among Latino engineers and scientists.

MAES’s primary goals are to:

• Assist members to acquire professional STEM experience by encouraging research and encouraging the creation of poster presentations to show at the MAES symposium.
• Increase high school interest in STEM by creating junior chapters in high schools and hosting Science Extravaganza.
• Create connections with professionals within industry and gain information on the transition from school to industry.

MAES members develop professionally by meeting and interacting with professionals who come speak at our meetings. Once a month we will be holding workshops to increase experience with technical writings, presentations and other leadership skills.

MAES at ASU partnered with Intel and attended the Hermana’s Conference where underrepresented female Latinas heard from Latinas from Intel and ASU students about STEM-related careers. Around 100 high school students were in attendance. With a full year coming up, we hope to increase high school interest in STEM by creating junior chapters in high schools and hosting Science Extravaganza.

During 2012-2013, two of the three attendees we sent out to the National Leadership Conference in Washington, D.C., received first- and second-place in the team presentation competition out of 10 teams. Our members gained opportunities to network with professionals from Intel, GE, APS and Honeywell. We held professional development opportunities including résumé and professional attire workshops.

For 2013-2014, MAES plans to increase freshman and sophomore membership. We plan to create junior chapters at nearby K-12 schools. By increasing motivation in research, we hope to travel to the 2013 MAES Symposium with several members competing in the research poster competition. We hope we can travel to the 2014 National Leadership Conference and return with champions as we did this year.
Material Advantage at ASU
studentorgs.engineering.asu.edu/ma
advisor: James Adams, President’s Professor

Material Advantage’s purpose is to promote among its members a self-sought, increasing knowledge of metallurgy, ceramics, materials science and engineering and all its branches, and to instill a professional pride in their chosen life work. Our primary goals are to develop our members professionally and technically, and give them the information they need to succeed in today’s engineering industry.

As a result, Material Advantage members have leadership and volunteer opportunities, gain technical knowledge and obtain professional development.

Some of our students attended the Materials Competition in Texas which offered materials-themed, academic decathlon style competition. We also competed in the Materials Bowl which pitted the ASU and Arizona Capstone projects against each other to see who had the best project, judged by impartial judges. We held meetings on graduate school with professionals from Intel and Raytheon.

For 2013-2014, Material Advantage plans to increase the attendance of our meetings and events, expand our outreach and win back the Materials Territorial Trophy.

NASA Space Grant Robotics
studentorgs.engineering.asu.edu/robotics

NASA Space Grant Robotics (NASGR) is committed to learning new technical skills, practicing systems engineering, gaining hands-on experience and performing community outreach. Team members learn the fundamentals of underwater robotics design from veteran members and analyze industry designs in areas including mechanical engineering, electrical engineering and computer science.

New members develop their individual skills by putting classroom knowledge into practical application. Many members who have technical expertise or leadership ability become Team Leads or other officers. Not only does our team offer the opportunity to improve your knowledge, but it is also a huge résumé-builder.

We compete in both the National Underwater Robotics Challenge (NURC) and the Marine Advanced Technology Education (MATE) International Competition. These summer competitions require extensive organizational preparation and designing and constructing an underwater robot to perform mission tasks. Both events require a technical report, brochures, technical poster and marketing-focused presentation. Our goals are to prepare and attend these competitions while continuing to provide community outreach to ASU and the local robotics community. The FIRST Robotics Competition (FRC) is a high school robotics competition in which many of our members previously participated. Our members seek teams who need mentors and help them during competition season.

During last year’s competitions, we placed second at the NURC competition and received the MATE Award, which is one of their most prestigious awards signifying our team’s appreciation for the practical applications of knowledge and skills and passion for the marine science and technology field.

Our Team Lead was also awarded the Engineering evaluation “MVP”, presented to students who excelled during their engineering presentations.

Our upcoming goals include competing in NURC and MATE, planning future development and robot improvement, and adding fully autonomous functionality to enter more robotics competitions next year. We are always looking for dedicated students from any major who are interested in robotics and engineering, or helping with operations.

National Society of Black Engineers

The National Society of Black Engineers (NSBE) is one of the largest student-governed organizations in the U.S. Our organization is centered on improving the recruitment and retention of African American engineering students. Our mission is to increase the number of culturally responsible black engineers who excel academically, succeed professionally and positively impact the community.

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and the many individual donors who provide financial assistance and mentoring to our students.

Thank you for your support!
Society of Automotive Engineers
sae.club.asu.edu
advisor: Steven Trimble, professor of practice

The Society of Automotive Engineers (SAE) promotes a safe, constructive environment for Fulton Schools of Engineering students to practice their engineering skills. SAE is currently building and competing with four different vehicles in collegiate competitions. Our Formula team utilizes the drive train from a CBR F4i, mated with a torsen differential and slick Hoosier tires. The Baja team is given free reign when it comes to suspension and chassis design (constrained by some safety specs) but are then limited to a Briggs and Stratton, 10hp motor. Aero builds a heavy lift RC aircraft meant to deliver a humanitarian package, combining the engineered precision of real-life aircraft into a smaller, more feasible project. Finally the Super-mileage team is looking to get 500 mpg utilizing a small Briggs and Stratton engine with nearly no restrictions on modifications.

Our club functions like a business so students get a more hands-on experience similar to the corporate world. As a result, students develop their technical knowledge and work with many types of people in a team environment. They learn about sourcing hardware and the documentation side of engineering.

SAE supports the A World In Motion (AWIM) program, which is a SAE National Foundation STEM program that introduces engineering concepts to elementary and middle school students through different engineering projects. Our organization's members volunteer by helping students with their projects. This past year SAE volunteered 105 hours at three schools, where our members helped with classes and learned from fellow engineering volunteers and the younger students.

For 2013-2014, we plan to have all four teams compete and are currently two for four. We also plan to continue to develop our marketing team, further optimize our vehicles and increase sponsorship.

Society of Hispanic Professional Engineers (SHPE de ASU)
shpedeasu.org
advisor: Carrie Robinson, associate director, academic achievement and student services

SHPE de ASU’s vision and mission is to increase the number of Hispanic graduates in engineering and applied sciences by identifying prospective jobs. SHPE de ASU reaches out to younger Hispanic students in the Phoenix area to encourage them to pursue STEM careers and serve as community role models to improve diversity and promote leadership.

SHPE de ASU enhances the five pillars of SHPE National, which include Outreach and Community Service, Leadership Development, Professional Development, Academic Development and Chapter Development. We fulfill these pillars by providing students with workshops, events, speakers and community service. One of our goals is to promote professional development among our students by sending them to attend conferences (nationally and regionally) and by providing them with resources to succeed academically and professionally.

SHPE de ASU oversees three junior chapters within the valley that participate in various STEM events from robotics to Rubik’s Cube Competitions. We host "Noche de Ciencias," or "Night of the Sciences" at an elementary school where students learn about science, technology, engineering and mathematics. Our members also educate students’ parents by encouraging them to pursue a higher education in one of the disciplines mentioned above. SHPE de ASU also tutors students in the math portion of the AIMS test. During E-Week, SHPE de ASU presented and hosted an activity at elementary schools to promote engineering. Overall, SHPE de ASU assisted 10 Title 1 schools in the valley with primarily underrepresented student bodies. Schools that received continuous ASU mentors were Tolleson, Dysart, Lowell and Shaw. SHPE de ASU also hosts the regional on-site challenge for MESA (Math, Engineering and Science Achievement) Day.

At the SHPE National Conference in Fort Worth, Texas, we participated in the Academic Olympiad and Extreme Engineering; presented research; and received National Recognition for our Community Service/Outreach. We recently hosted the Region 2 Regional Leadership Development Conference for more than 150 undergraduates. During this conference, we received high marks and were awarded the Best Chapter-At-Large Award for Region 2.
For 2013-2014, we plan to increase membership, continue being the best in the nation for outreach, increase member attendance at the SHPE National Conference and host more technical workshops for our students.

**Society of Women Engineers**

sites.google.com/site/sweasu
sweasu@gmail.com
advisor: Sara Jarvie, academic success specialist

The Society of Women in Engineers (SWE)'s vision is to connect female engineering majors with their peers, industry leaders and future opportunities. We also hope to ignite the excitement of engineering with younger generations and support them in their pursuit of higher education.

SWE’s primary goals include:

- Providing opportunities for female ASU engineering students to socialize and forge meaningful relationships.
- Expose our members to opportunities awaiting them after college by inviting industry leaders to speak at our meetings and promote scholarship and internship opportunities.
- Spread the excitement of engineering to younger generations, introduce them to engineering careers and provide encouragement throughout their education.

- SWE members gain leadership experience, industry connections, and networking skills and opportunities. Throughout the year, SWE hosts two outreach events: Engineering Masterpiece and GEAR Day.
- Engineering Masterpiece: This year, we invited 24 high school girls to spend a day with our members at As You Wish ceramics. This event gave us the chance to connect with these young women as they begin to think about their future education and answer their questions.
- GEAR Day: Each Spring SWE invites more than 100 girl scouts 5-15 years old from neighboring troops to campus for a day. Our members help the girls assemble engineering kits provided by Agilent Technologies, such as balloon-powered cars, catapults and circuit boards.

Also, last year, SWE won the Silver Award for Collegiate Chapter at the 2012 SWE National Conference in Houston, Texas.

For 2013-2014, we plan to increase membership, promote software development, develop projects and finish projects.

**Software Developers Association at ASU**

sodaasu.com
Kevin Burger, lecturer

SoDA is the Software Developers Association at ASU, which provides an area for developers to collaborate. Have you ever wondered what would happen if you took some of the most enthusiastic, inventive and sometimes devious people on campus and put them together? Turns out that the end result is a recipe for fun, learning and sharing.

SoDA's primary goals are to promote and focus on software development and computer-related technologies. Typically our meetings consist of a presentation from an industry representative followed by an hour of collaborating on projects, such as sharing our latest Minecraft creations.

Last year we had speakers from Solugenix, GoDaddy, DevFu! and many more.

While many of our current members are computer science students, we have a large number of students from diverse fields and backgrounds. We are open to anyone who is enthusiastic about technology.

During 2013-2014, we plan to increase membership, promote software development, develop projects and finish projects.
Students for the Exploration and Development of Space
sedsasu.org
advisor: Jim Bell, professor
Students for the Exploration and Development of Space (SEDS) at ASU promotes the exploration and development of space through outreach and hands on projects. Our primary goals are to expand outreach efforts to more schools and increase project involvement with members. We pursue this mission by educating the public about the benefits of space, by supporting a network of interested students, by providing an opportunity for our members to develop their leadership skills and by inspiring people through our involvement in space-related projects. SEDS-ASU believes in a space-faring civilization and that focusing the enthusiasm of young people is the key to our future in space.

SEDS-ASU members gain technical knowledge, networking and development by being involved in our organization.

During 2012-2013, SEDS-ASU visited eight schools and impacted over 800 students. Of these eight schools, six were Title 1 schools made up of minorities.

For 2013-2014, our goals include increasing our membership, doubling our outreach efforts and increasing our engineering projects.

Sun Devil Satellite Laboratory
studentorgs.engineering.asu.edu/sdsl
advisor: Iman Alizadeh, lecturer
Sun Devil Satellite Laboratory (SDSL) provides an environment for engineers of all backgrounds to develop satellite engineering skills and experience. SDSL's primary goals are to develop, test, manufacture and operate small spacecraft for several purposes, such as developing satellites to compete in national engineering competitions and building CubeSat spacecraft for a variety of scientific purposes, including solar imaging or radio wave sensing, in an overall mission to expand current CubeSat technology.

Members gain a high level of satellite engineering technical knowledge, abilities to work with hands-on projects requiring rigorous precision, a strong network of existing and future ASU satellite engineering students, and exposure to professional industry engineering practices. Leaders also gain valuable leadership skills and experience.

SDSL's primary goal is to build an ASU CubeSat or small satellite laboratory. Small satellite labs are increasingly starting up at numerous universities. SDSL hopes to continue this trend by receiving the financial and operational support from groups at both Arizona State and NASA to build one of ASU's first successful satellites to reach orbit. The current primary method of achieving this goal is to win a proposal that will allow SDSL to develop, build and fly a satellite that will act as the bus for a radio-wave sensor flight test for the DARE project which already has received ASU support. Another goal is to recruit inexperienced freshmen and sophomores to join two 10-member teams that will each build a CanSat to compete in the 2014 AIAA/AAS CanSat competition and repeat the success of this year's competition. These goals ultimately lead to SDSL's main future goal, which is to develop an environment and system in which engineering students interested in satellite engineering but with little to no experience can join the organization and receive small-scale engineering assignments that allow them to gradually increase their experience and gain the necessary confidence and knowledge to continue on to real-world engineering challenges that are inherent to a CubeSat laboratory.

Tau Beta Pi
tbp.asu@gmail.com
advisor: Keith Holbert, associate professor
Tau Beta Pi is an honor society which encompasses all engineering disciplines. The organization promotes excellence and integrity in engineering. Tau Beta Pi provides a place for the top engineers of all disciplines at the Fulton Schools of Engineering to come together, socialize and work together to promote engineering in the community and complete other community service roles. For 2013-2014, we plan to increase membership and continue community service activities both on campus and in the Tempe community.
Theta Tau
thetatau-dg.org
advisor: William Gest, faculty associate
The purpose of Theta Tau is to develop and maintain a high standard of professional interest among its members, and to unite them in a strong bond of fraternal fellowship. Theta Tau has the following primary goals:

• For our Brotherhood: We forge lifelong bonds of fraternal friendship, a journey that develops and delivers a network of lasting personal and professional relationships. We foster an inviting, safe and social environment in which our members become lifelong friends.

• For our Profession: We develop and nurture engineers with strong communication, problem-solving, collaboration and leadership skills that we demonstrate in our profession, our community and in our lives.

• For our Communities: We are known for our service to our college, university and the larger community. Our service projects create a unifying environment for learning and personal growth for our members.

Theta Tau members gain leadership experience, technical and professional skills, and lifelong brotherhood within the engineering profession.

Within the last year, Theta Tau has been active in outreach within the community and school. Last year, we hosted a “Dress for Success” workshop open to all engineering students. This event brought in representatives from Men’s Warehouse and Ann Taylor to educate students on what is appropriate in the workplace. Every Halloween, Theta Tau trick-or-treats for canned goods to help out local food banks. Last Halloween we raised over 350 lbs of canned food. We also participated in adopt-a-family programs during Thanksgiving and Christmas to help alleviate some of the family’s financial stresses of the holidays.

In fall 2012, we hosted a regional conference of our national fraternity. This involved much event planning and coordination between many chapters. We are currently planning several engineering projects, one being a dune buggy. Our alumni are one of the best resources in reaching out to industry and gaining connections outside of school.

Our goals for next year are to gain additional members who are passionate about engineering and want to be involved and contribute in the community. We hope to spread the word about our student organization and how it can be a benefit to engineering students not only during college, but after graduation as well.

Women in Computer Science (WCS)
wcs.asu.edu
co-advisors: Mutsumi Nakamura, lecturer senior, and Faye Navabi, lecturer senior
Women in Computer Science (WCS) wishes to promote women in computer science and technology related fields. We are a specialized organization for fostering interaction between women faculty and students in computer science and engineering. WCS aims to have women of all ages be exposed to computer science and other technological fields. WCS members gain technical knowledge as well as learn what employers are looking for. Companies from all over the valley come to speak to encourage women to apply and provide other opportunities.

During 2012-2013, WCS visited Tolleson High School to speak with girls about studying computer science and connected with more companies who sponsored our annual programming competition than in past years. For 2013-2014, WCS plans to increase membership and visit more high schools.
If you are interested in fun, leadership, outreach, career growth and networking, you should check out opportunities with our more than 50 engineering student organizations and competitive teams. There are honors and professional associations, diversity organizations, major-specific groups, service organizations and competitive teams—you are sure to find a group that suits your needs, whether it is gaining hands-on experience working on a team, providing outreach to K-12 students to ignite their interest in engineering, or socializing with peers that share the same passion.