Who we are...

Penn State’s Office of Engineering Diversity provides various enrichment opportunities to underrepresented and minority engineering students. We are comprised of two programs: the Multicultural Engineering Program (MEP) and the Women in Engineering Program (WEP). Our mission is improve the recruitment and retention of underrepresented minority groups and women who are pursuing a degree in engineering. We provide a number of first-year experience, academic enhancement, recruitment and outreach, and professional development programs and activities; to actively promote an equitable and productive learning and work environment within the College of Engineering.

How YOU can help...

Inside are detailed descriptions of the many programs our office facilitates. They are divided into descriptive categories:

~Retention and Support
~Recruitment and Outreach
~Professional & Career Development
~Academic Success

If you have any questions regarding any of these programs, our contact information is listed on the back of this informational booklet. Thank you for your interest in our programs!
WEPO/MEPO are separate but similar three day orientation programs for first year students. They provide an introduction to larger WEP/MEP community and include mentoring, professional development and academic support.

The participants are placed into groups, led by mentors, and are given an engineering project to complete. Afterwards, each team presents their project to corporate alumni. Also, WEPO has a corporate networking dinner, and MEPO has an alumni luncheon. In addition, the programs are available to the commonwealth campus students as well.

During the orientation, students bond and create lasting supportive relationships, become familiar with the campus and all resources available. Upper class students work as facilitators/mentors gaining leadership experience.

MEPO: 60-70 Participants, 30-40 Leadership Team

MEPO Program Cost = $50,000
WEPO: 160-170 Participants, 50 Leadership Team

WEPO Program Cost = $100,000

"WEPO helped me create a network of women to lean on, as well as, the confidence to approach and connect with different corporate recruiters."

-Ana Medina, WEPO ’07

These events take place once a month and are meant to supplement the orientation programs, WEPO and MEPO. The events are one hour sessions that provide professional and academic development. The topics covered range from interviewing skills, test anxiety, getting involved, stress management, and much more. For some sessions, professors and staff will present information, and for others upperclassmen will share their experiences and give advice.

In addition to the valuable tips on a variety of topics, these sessions create networking opportunities for both WEP and MEP participants with faculty and upperclassmen. About 40-60 students attend MEP Nights, and 200 to 300 students attend WEP Wednesdays.

MEP Program Cost = $5,000
WEP Program Cost = $7,500
Fall Welcome Reception

The Multicultural Engineering Program kicks off the academic year by having a picnic reception in September. Through activities such as raffles and dancing, new students are able to connect with upperclassmen, and all students get to meet the Engineering Diversity Staff, Engineering Deans, Faculty and Advisors. About 175 students attend this event.

MEP Program Cost = $6,500

“"I have always looked forward to the Fall Reception. It’s always fun, and everyone gets to reconnect after the summer—it’s like one big family reunion.”

~Christy Holtzapple, PSU Alumni ’10

Campus College Connection

There are 17 Penn State campuses around the Commonwealth of Pennsylvania that are two-year institutions attracting a specialized audience of students. Most engineering students from these institutions will eventually attend the College of Engineering at University Park. Over half of the incoming underrepresented first-year engineering students and one third of female engineering students attend the Campus Colleges. The Campus College Connection (CCC) creates a welcoming and supportive environment allowing a smooth transition to University Park. The CCC provides mentoring, academic tutoring, and introductions to professional and student organizations. This program connects the students at all campuses in an effort to increase retention and support towards graduation.

MEP/WEP Program Cost = $12,000

Pre-First Year Engineering & Science Program

This program, commonly known as PreF, is one of the two summer bridge MEP programs meant for incoming freshmen in an engineering or science based major at Penn State. PreF accommodates 25 to 30 students, who are housed on campus for 6 weeks, and take five introductory courses: Physics, Chemistry, Calculus, English and a College Survival Course. These courses ensure the success of academically promising students in their future semesters at Penn State. After taking these courses, students can receive a predetermined amount of credits toward their G.P.A, giving them a head start. In addition to taking classes, students also go on field trips to enhance in-class experiences and create a community among themselves, so that they have a support system in their first semesters at Penn State.

MEP Program Cost = $130,000

“PreF is an experience that cannot easily be relayed in words, but in earnest. After PreF you arrive in the fall with a close knit group of friends, a plethora of resources that will only serve to make your transition to this wonderful school as smooth as possible.”

~Avery V. Williams, PreF 2008
Academic Summer Enhancement

This is the second of the two summer bridge MEP programs, commonly referred to as ASE. This program is meant to encourage engineering students from all Penn States commonwealth campuses to get to know the College of Engineering located at University Park. Although many first-year students start at Penn State campuses all over PA, most engineering students graduate from University Park. These students will be housed for 4 weeks at Penn State University Park, where they will take introductory courses in English, Pre-Calculus, and Chemistry. They will also be connected to current MEP undergraduate students, that act as the participant’s mentor.

** MEP Program Cost = $70,000 **

Recruitment & Outreach

Make the Machine Engineering Camp

MTM (Make the Machine) is an opportunity for young women to get “plugged in” to engineering careers. It is a week long day camp for girls entering grades 9-12, in which five different interdisciplinary engineering modules are highlighted (one per day). Students are given engineering design projects that will help them gain a better understanding of the highlighted engineering major. Students can choose to attend one or all five modules.

Program accommodates 125-135 HS students

** WEP Program Cost = $25,000 **

Visit In Engineering Weekend

The VIEW program targets 10th and 11th grade high school students from all over the country. Participants come to Penn State University Park campus for a 4-day weekend full of workshops, hands-on activities and an “extreme” engineering challenge. During the program participants are placed in teams and lead by an upper-class engineering student who acts like a mentors to the participants. VIEW is a way for underrepresented high school students to begin to see college and engineering as an option for them.

Program accommodates 60-70 HS Students

** MEP Program Cost = $30,000 **

—Ezedube Eze, ASE ’08

“ASE made the transition from high school to college effortless.”
**Girl Scout Saturdays**

These are half day workshops led by women engineering students that provide Girl Scouts and Brownies hands on introductions to a variety of engineering disciplines. They are offered monthly throughout Penn State’s academic year, allowing Girl Scouts to complete badges during the workshop activities. This provides early exposure to all the fun aspects of engineering, math and science. It also provides an opportunity for women engineers to facilitate and gain leadership experience.

\[ WEP \text{ Program Cost} = $5,000 \]

**Graduate School Recruitment**

Recruitment travel is a major expenditure and a critical factor in bringing women and underrepresented students to Penn State. A representative of the Engineering Diversity office attends 10-12 conferences annually to nationally recruit undergraduate and graduates students to Penn State. Information is provided at graduate school fairs about all of the engineering graduate schools along with application fee waivers provided by the office of Graduate Equity.

\[ MEP/WEP \text{ Program Cost} = $20,000 \]

**Professional & Career Development**

**Engineering Mentoring for Internship Excellence**

The Engineering MIX is a collaborative effort of the Engineering Career Resources and Employer Relations Office and the Office of Engineering Diversity. This spring internship development program includes: academic and professional development, field trip to sponsoring corporate site and internship assignment. Sponsoring corporations provide information for the selection process, preliminary tour of the corporate facility and receive well prepared pre-selected students for summer internships.

\[ MEP/WEP \text{ Program Cost} = $3,890 \text{ per student} \]

“EMIX gave me the opportunity to strengthen my soft skills, as well as, opened up my eyes to many resources that I will have at my disposal during my internship. It truly allowed me to hit the ground running and get a huge leap forward on my work as an intern and professional engineer.”

~ Jason Morris, EMIX ’10
Academic Excellence Center

The Academic Excellence Center (AEC) is a place where students can supplement their learning with free tutoring services, reference tests and homework files, computer access and a study area for individuals or teams. The tutoring services cover the various engineering subjects usually taught in the first two years of study, such as Calculus, Physics, Chemistry, and Engineering Mechanics. On a day to day basis tutors help students with homework and exam preparation.

**MEP Program Cost = $30,000**

WEP Enrichment Courses

These courses are geared towards women in engineering or are gender balanced. Each course is described below:

- **Introduction to Robotics**: A six week class where students are provided with robotics kits and create an original smart robot design.

- **Toy FUNdamentals**: This class includes engineering design and prototyping through toy products. It’s a six-week class that explores toy marketing and design through toy dissection, original design, prototyping and field-testing.

- **Lab Skills Workshop**: Students are introduced to an electronics lab and use new skills to build a radio.

- **Networking Essentials**: Through this course, students learn the basics of computer operations.

- **Wellness Strategies for Female Engineers**: Students learn how to reduce stress and stay healthy while pursuing a demanding academic and professional schedule.

  Number of students per class: 30

  **WEP Program Cost = $15,000 (for all courses)**

Success 101

This course is designed to give first year students the skills needed to succeed as new engineering students. The course includes instruction on study skills, an engineering field trip, resume building, instruction on business etiquette, and a final research project. The course is taught by the Assistant Dean of the Office of Engineering Diversity in Fall, allowing for the students to personally know a good resource that may help down the road.

**MEP Program Cost = $5,000**
Career Development Seminar

This course (ENGR 497G) offers upper-class engineering students information on the tools and current practices in industry. Topics range from communication skills, leadership strategies, teambuilding skills, personal management, etiquette and knowledge about the corporate culture. The seminar will cover a variety of topics and is designed to create a successful transition to the workplace and a successful career. Industry representatives will participate in the course as guest speakers. They will provide presentations in-person and through methods used in industry including telephone conference calls and Skype.

MEP Program Cost = $15,000 (per class section)

Facilitated Study Groups

WEP Facilitated Study Groups bring together small groups of first and second year engineering women enrolled in entry level courses with an upper level engineering facilitator who has proven successful in understanding the course concepts and requirements. Study group members meet with the facilitator weekly to review homework problems, discuss concept questions, study for exams, and help students succeed in that course.

WEP Program Cost = $15,000

Summer Research Opportunities Program (SROP) & WEP Research Projects

We provide two undergraduate research programs: Summer Research Opportunities Program (SROP) and WEP Research Projects. SROP is a national summer research program for MEP participants. At the end of the summer research findings are presented at the SROP National Conference, and we are able to familiarize students with our graduate school early on.

WEP provides funding for several research projects to provide women the opportunity to study cutting edge technology. These projects can be conducted throughout the year.

WEP/MEP Program Cost = $3,000 per student

Scholarships

Scholarship support is a crucial ingredient in the recruitment of talented underrepresented engineering students and the retention that follows. There are many cases where financial need prohibits solid academic achievement. Scholarships provide recognition of students’ accomplishments and potential as future engineers. For pre-college students, scholarships are given based on achievement and need, and provide a goal to work toward. For current students, scholarships are a rewarding statement, motivating them to continue working hard.
The office of Engineering Diversity provides many other services for students, which are not mentioned above. We create student resumes, accommodate visiting students, meet scholars and graduate students monthly over dinner to discuss academic progress and ideas. We provide travel grants for educational experiences outside the classroom, purchase advertising, attend networking conferences, and several other daily activities, which we could not complete without our sponsors.