

**A UD ENGINEERING EDUCATION IS ABOUT COLLECTING EXPERIENCES, NOT JUST TAKING CLASSES**



### EXTRACURRICULAR ACTIVITIES

Although the engineering curriculum is challenging, engineering students can (and do!) get involved in a variety of extracurricular activities. Our engineering students are very involved in music ensembles, athletics from the collegiate level to intramurals, campus ministry, community service, student organizations, and more. They build super mileage cars, march in the band, and join fraternities and sororities—all with the academic support needed to become well-rounded engineering professionals.

In the School of Engineering alone, there are more than 30 professional associations, clubs, teams and affinity organizations to become involved in. These organizations allow students to develop professionally while learning new skills.



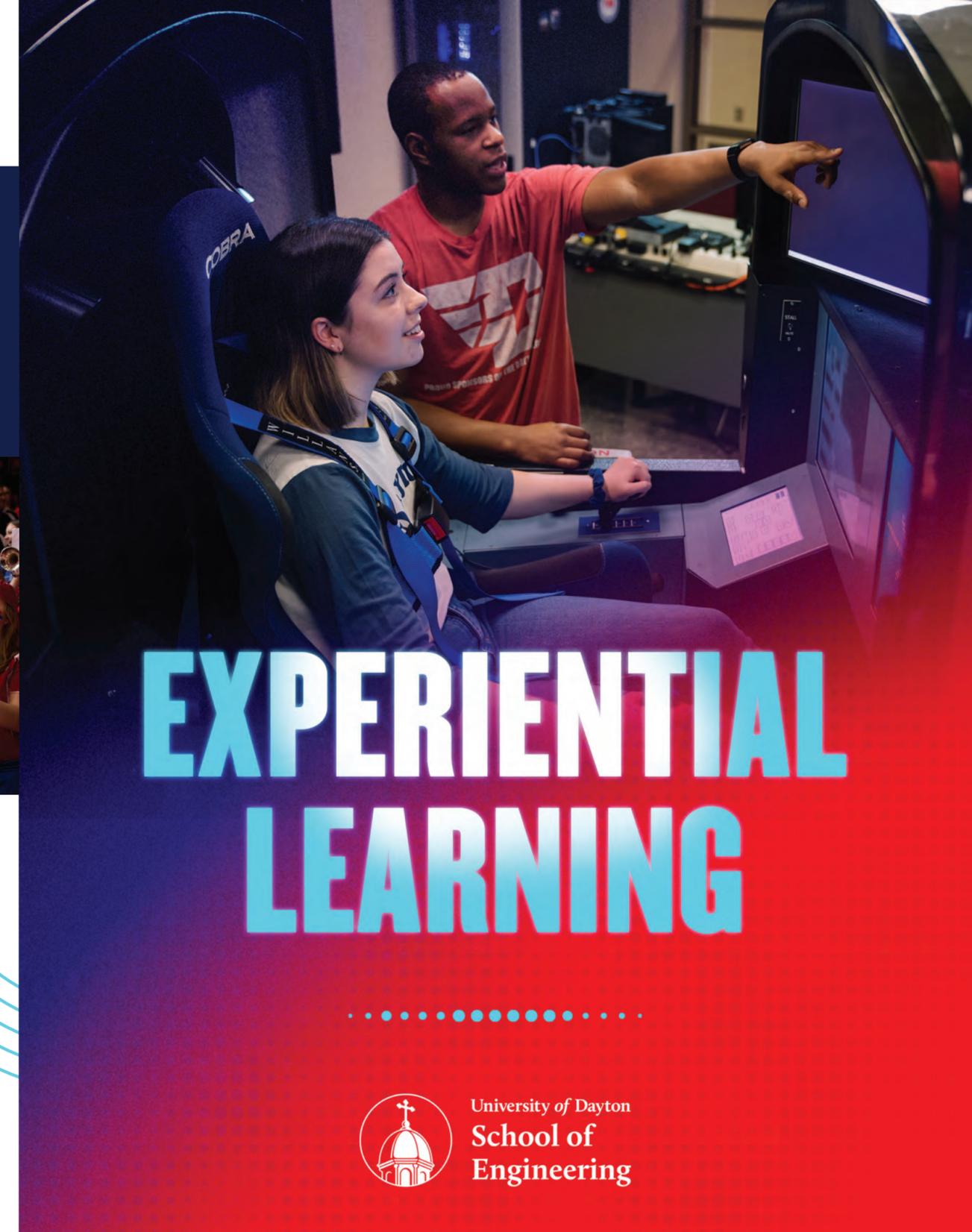
At the University of Dayton School of Engineering, we believe the best way to become a creative problem solver is to get hands-on experience putting your ideas into action. To get started, first year students take a class on innovation, EGR-103. You'll be teamed with students from other engineering majors to create a new product or technology to meet a societal need. In future courses you may test your ideas using tools like our flight simulator, wind tunnel and visualization software, which provide instant feedback. Our Innovation Center allows seniors to work for external clients on real-world engineering challenges while our Visioneering Center teaches students to think like entrepreneurs.

We offer a broad range of opportunities to put engineering skills honed in the classroom into practice. From co-ops and internships to study abroad and community-engaged learning projects overseen by our ETHOS Center, the options are varied. In addition, research opportunities abound here on campus, even for first-year students. All of these experiences can be combined with non-engineering classes, minors and extracurricular activities to create a truly customized program of study.



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# EXPERIENTIAL LEARNING



University of Dayton  
**School of Engineering**



## CO-OPS AND INTERNSHIPS

There's no better way to find your engineering passion than to spend time exploring your interests in the workplace. Co-op students use the program as a tool to inform their educational and career choices.

While co-ops are not mandatory at the School of Engineering, about 70 percent of our students participate in co-op classes or a single term internship. If you are interested in co-op work, our staff of engineering professionals make it very easy to find the right fit with interviews right on campus. Work at different employers to explore your interests or return to one employer for multiple terms of work to explore what that company has to offer. Co-op students can work locally, nationally or internationally—all while maintaining their full-time student status and all the benefits of our eight semester tuition guarantee. The average co-op student earns just under \$12,500 per semester, which can help pay for educational expenses.



## INNOVATION CENTER

The award-winning Innovation Center pairs teams of three to five senior students working with a faculty advisor and an external client to solve real-world engineering challenges. Teams can be composed of all engineers, but are frequently interdisciplinary in nature. The Innovation Center allows students to complete a capstone design experience and has produced everything from personalized adaptive equipment for individuals with disabilities to patented inventions for industry. Eighty-five percent of clients report that students met or exceeded their expectations. Since 1996, our students have completed over 1,500 projects for 250 companies.

## ETHOS CENTER

ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning) was founded in 2001 by a team of UD engineering students who wanted to use their skills for humanitarian purposes. Today the program has grown to include local, national and international immersions of ranging from three days to 10 weeks. Rooted in partnership, ETHOS works with non-profit hosts that sponsor our projects. These partner organizations facilitate authentic cultural immersions, offer local perspective and provide continuity to the work.

Students who participate in the international immersion program enjoy community-engaged learning by working in developing countries on technical projects that utilize practical engineering knowledge. From work on solar powered ovens and refrigerators to building tiny houses, students learn about the world, different cultures and themselves. In 2015, the School of Engineering created the ETHOS Center to more effectively integrate domestic immersion experiences into the curriculum and to advance research that addresses critical humanitarian needs.



## STUDY ABROAD

Technology is making the world a smaller place and today's engineers are likely to work with partners from across the globe. That's why building intercultural competence is so important for our students.

At the University of Dayton, there are many different options to learn about the world:

- Travel to places like Costa Rica with your EGR 103 class over spring break.
- Choose a five-week faculty-led summer session to places like Italy, France or South Africa.
- Develop your leadership skills with our SAIL program. Spend the fall semester in Ireland or Spain and then participate in an Intercultural Leadership Program with special housing back on campus in the spring.
- Spend a semester or a year at a Marianist partner institution: Chaminade University of Honolulu (Honolulu, Hawaii) or St. Mary's University (San Antonio, Texas).
- Take a Collaborative Online International Learning (COIL) engineering class and be paired with students at an international university taking the same class. Work remotely to complete a group project.

Students are responsible for their usual University of Dayton tuition. Room and board costs will vary according to the program location and options chosen; however, most financial aid, including institutional scholarships and grants, applies for semester or year-long programs.

## RESEARCH OPPORTUNITIES

The University of Dayton is a top-tier research institution that conducts more than \$170 million worth of sponsored research each year. Research opportunities abound for students, even first year students, who wish to assist faculty on research projects. Funding is available for fellowships through the Summer Undergraduate Research Experience (SURE) Program and other sources so that students interested in research careers do not have to choose between paid internships and unpaid research positions.

As students advance in their studies, research opportunities become available at the University of Dayton Research Institute (UDRI), the University's research and development division. UDRI employs more than 500 staff members and 200 undergraduate and graduate students to perform engineering research. Additionally, GE Aviation and Emerson Climate Technologies have world class R&D facilities in our on-campus research park and are the largest employers of student engineers in our co-op program.

➡ *Mechanical engineering major Bridget Dues worked in four different engineering groups over four work terms at Midmark Corporation. The experience not only directed her future career path, it led to a full-time job with the company. "My co-op experience was incredibly beneficial to my future career," Dues said. "I recommend the co-op program to anyone!"*



➡ *Mechanical engineering major, Brad Hripko, combined two signature University of Dayton School of Engineering summer programs to further his undergraduate research: the Summer Undergraduate Research Experience (SURE) Program and the ETHOS International Immersion Program. Hripko's research is on 3-D printing soft, flexible materials for prosthetics. He traveled to Chile to work on a prototype with researchers from the University of Chile Take a Hand team.*

