Our 16-credit EDGE Engineering Entrepreneur Certificate Program is a great addition to an electrical and computer engineering degree. The EDGE program trains engineering students in the entrepreneurial skills required to commercialize new ideas, technologies, and products. Students learn to solve problems and bring inventions to market through courses in entrepreneurial marketing, finance, law, and management, as well as engineering. Additionally, engineering students have direct access to a wide range of business incubators, partner services, mentors, and advocates both on and off campus.

- engineering.wayne.edu/edge
What is Electrical and Computer Engineering?

Earn a degree in electrical and computer engineering, and you’ll have the tools you need to create a faster smartphone, a thinner laptop, even a more powerful automotive navigation system. Electrical and computer engineers design and build the gadgets we use everyday, as well as the computer hardware within larger systems like airplanes and robotic assembly lines. A creative, hands-on discipline with a strong math component, electrical and computer engineering students learn to work with controls, computer systems, telecommunications, fiber optics, remote sensors, circuits and more.

Degree Programs

- Bachelor of science in electrical engineering
- Undergraduate certificate in control systems
- Master of science in computer engineering
- Master of science in electrical engineering
- Doctor of philosophy in computer engineering
- Doctor of philosophy in electrical engineering

Why the Wayne State College of Engineering?

- Internships: Start working in the field before you even graduate with a large number of internship opportunities.
- Practical experience: Break classroom boundaries by building a concrete canoe, steel bridge, hybrid vehicle and more.
- Scholarships: The college awards up to 100 engineering scholarships annually. The university offers many more.
- Study abroad: Graduate with the global perspective employers love.
- Undergraduate research: Join expert faculty in research from your very first year.

Research

Wayne State is known for supporting undergraduate research as early as the freshman year, and the College of Engineering is no exception. In fact, the college recently kicked off its Undergraduate Research Award Matching Fund Program, providing students with support and faculty mentorship on a wide range of research projects.

The College of Engineering’s new laboratory building contains seven instructional laboratories for experimental work in control systems, analog circuits, digital systems, microcomputers, power electronics, optics and communication systems. In addition, departmental faculty run advanced research laboratories dealing with computer systems, computer vision, semiconductor device materials including a clean-room facility, micro- and nano-electronics, photonics, power and energy systems, robotics, imaging and communication systems.

Faculty Expertise

Wayne State’s electrical and computer engineering faculty members conduct cutting-edge research in diverse areas, from control systems and smart sensors to biomedical electronics and robotics. For example, Associate Professor Song Jiang is working to improve the performance of computer data storage systems, a critical issue in the digital age. He is collaborating with Facebook on the project.

On the Job

Wayne State engineering students enjoy unparalleled career opportunities in Detroit and around the world. We support our students and alumni through our Career Services Office, online job listings, industry employer job banks and more. And, with so many employers based in the city and surrounding areas, our students have direct access to countless internship opportunities.

Electrical and computer engineering alumnus Rob Ruttenbar is the founding director of the U.S. National Focus Research Center for Circuits and System Solutions, a consortium of 19 universities and more than 50 faculty members. He was also the Stephen Jatras Chair in Electrical and Computer Engineering at Carnegie Mellon University. Currently he is the Abel Bliss Professor of Engineering and head of the computer science department at the University of Illinois at Urbana-Champaign.