



Electrical Engineering

As an electrical engineering student at Valparaiso University, you will learn on the cutting edge of emerging technologies in circuits, electronics, microcontrollers and communication systems.

Such a well-rounded educational experience prepares electrical engineering graduates for careers in a number of areas, including instruments and controls, operations, testing, project design, power and energy, wireless communication, and computers.

Committed to providing an outstanding undergraduate education, the Valparaiso University College of Engineering goes beyond developing technical competence. The electrical engineering program strives to develop engineers with the insight and capability to provide expertise that responsibly addresses social issues and promotes the wise use of world resources. Students are encouraged to develop teamwork and communication skills while engaging in hands-on laboratories taught by faculty, as well as take advantage of research opportunities.

In the Gellersen Center, undergraduate electrical engineering students use state-of-the-art equipment. These facilities are enhanced with the opening of the 13,470-square-foot Donald V. Fites Engineering Innovation Center, which provides meeting and design spaces for electrical engineering majors to collaborate with team members in other engineering disciplines.

Valpo is the only Lutheran University with four-year, ABET-accredited degree programs in Civil, Electrical, Computer, and Mechanical Engineering. The College of Engineering earns consistently high rankings, tying for 31st in the nation where the highest degree awarded is a bachelor's or master's degree, in a 2010 survey by U.S. News & World Report.

nanoK12

Since 2008, Electrical and Computer Engineering students have worked to develop nanoK12, which provides training material suitable for a nanotechnology program geared toward elementary and secondary school students. The College of Engineering students have taught hundreds of local community school children, providing a bridge to the next generation of engineers and benefitting from the experience by developing their own skills.



extracurricular activities, special programs and events

Design Expo — Each spring, engineering students showcase their research and design projects.

Engineers Without Borders — Valpo's chapter of this national organization is currently working with the village of Maesera in the Kilema district of northern Tanzania on a dual project to rehabilitate a local irrigation canal and provide sources of clean drinking water nearby every household. The Valparaiso University chapter was named the best in the nation in 2005.

Humanitarian Engineering — With this minor, students apply engineering concepts to help disadvantaged communities.

Institute of Electrical and Electronics Engineers — The IEEE promotes technological innovation through conferences, publications, technology standards, and related activities. Valpo

students have participated in an IEEE professional ethics competition.

Valparaiso Independent Robotics Team — VIRT participants compete in the renowned Jerry Sanders Creative Design Competition. Valpo teams placed first in design and third overall in the 2010 national event.

Society of Women Engineers — Valpo's nationally recognized chapter of this organization promotes the advancement of women in the field of engineering. SWE members participate in service events, field trips, and other fun-filled activities.

Tau Beta Pi — Participation in exceptional service projects by Valpo's chapter of this national engineering honor society is rewarded with undergraduate scholarships. The chapter was recently awarded a three-year scholarship for outstanding service performed from 2007-2010.

exceptional faculty

All members of the departmental faculty hold PhDs. Most have extensive professional engineering experience, and all are entirely dedicated to undergraduate education. Expertise in the department spans the areas of computer simulation, microcontrollers, computer networks, robotics,

nanoelectronic device design, and more, in a learning environment in which students benefit from small class sizes. Three members of the Computer and Electrical Engineering department have received university-wide awards to recognize their excellence as teachers and mentors.

learn more — in person

Personal visits to the College of Engineering include individual meetings with faculty members. Call Valpo's Office of Undergraduate Admission at 888.GO.VALPO or 219.464.5011 to schedule a visit. Find out more information on visits at valpo.edu/visit, and learn about Valpo students' personal stories and experiences at valpo.edu/whatsyourpart.

recent alumni

Valparaiso University College of Engineering alumni are highly sought after by employers and graduate schools, earning consistent placement rates in the high 90 percent range every year — and 100 percent in eight out of the last 16 years.

Alexander Lau '10 — Orr Indiana Entrepreneurial Fellowship winner; consulting, sales and marketing, Apparatus; Indianapolis.

Megan McGinty '08 — Associate Professional Staff, Applied Physics Lab, Johns Hopkins University

Jonathan Meekma '07 — Electrical Engineer, Northrop Grumman

scholarships and awards

In addition to the various awards and scholarships presented by Valparaiso University, engineering students can compete for ROTC scholarships. For information on scholarships and awards, visit valpo.edu/financialaid/.



beyond-the-classroom opportunities

Internships and Co-Ops — More than 75 employer-partners in 20 states participate in Valpo's faculty-directed cooperative education program. Additional sites provide internship opportunities. Recently, Electrical Engineering students have fulfilled internships at PeopleSoft Co. and Fermi National Accelerator Laboratory, among others.

Research Opportunities — Students in the Electrical Engineering program have the opportunity to work on undergraduate research projects with departmental faculty during the summer. Recent projects have included nanotechnology system design

and design of algorithms for scientific visualization.

VisBox X2 Virtual Learning System — Valpo is one of only a few undergraduate institutions to own a virtual reality system.

VIEP programs — Valparaiso University International Engineering Programs are five-year programs that combine an engineering degree with foreign language coursework and study-abroad experiences, offering an education that prepares students for success domestically or worldwide. VIEP-Spanish, VIEP-German, VIEP-French, and VIEP in China are available.