Engineering & Design

Active Minds Changing Lives
Electrical Engineering, BS

The Electrical Engineering major prepares graduates to conduct research, and design, develop, test and oversee the development of electronic systems and the manufacture of electrical and electronic equipment and devices. This includes a broad range of applications and specializations that generally involve both hardware and software—areas such as power systems, communications, analog and digital signal processing, embedded systems, and control systems. This major offers two concentrations; Electronics and Energy. The program is accredited by the Engineering Accreditation Commission of ABET.

Manufacturing Engineering, BS

The Manufacturing Engineering major prepares graduates to work in different manufacturing practices and includes research, design, and development of systems, processes, tools and equipment. A Manufacturing Engineer’s focus is to turn raw materials into a new or updated product in the most economic and efficient way possible. Manufacturing Engineers get opportunities to be innovative in design and manufacturing that can lead to patenting and start-up companies. This program develops these skills with the help of intensive laboratory components spread throughout its courses. The program is accredited by the Engineering Accreditation Commission of ABET.

Plastics & Composites Engineering, BS

The Plastics & Composites Engineering major prepares graduates to develop, process, and test materials used to create a range of polymer products from computer chips to aircraft wings. Extensive laboratory experience in design, materials, processing, economics, testing, and analysis is a crucial part of the hands-on curriculum. Sustainable design and materials development is increasingly emphasized. Through these experiences, students learn to apply theoretical knowledge learned in the classroom to solve practical, application-based problems in industry. The program is accredited by the Engineering Accreditation Commission of ABET.

Industrial Design, BS

The Industrial Design program prepares graduates to begin work as professional designers in corporate, consulting, or entrepreneurial positions. Students learn creative problem-solving methodologies, user-centered design, drawing and rendering skills, three dimensional model-making techniques, materials, manufacturing processes, ergonomics, design principles, and design thinking. These skills and techniques are applied in the design of many products that comprise a student’s portfolio. The program is accredited through the National Association of Schools of Art and Design (NASAD).

Industrial Technology—Vehicle Design, BS

The Industrial Technology—Vehicle Design program prepares graduates for technical positions in the automotive, marine, composites, and alternative fuel industries. The major provides students a general understanding of tools, materials, and processes used in the automobile industry. The curriculum is closely tied to practical experiences in laboratories.
STUDENT CLUBS

There are many student clubs affiliated with the Engineering & Design Department. Student Clubs provide excellent professional development and networking opportunities. Students are strongly encouraged to participate.

INTERNSHIPS

Although not required, internships offer an invaluable way to gain work experience, sample potential career areas, and help build a resume and/or a portfolio. Students are encouraged and assisted with applying for internships. Attending career fairs and participating in field trips are a good way to get in touch with employers.

RESEARCH OPPORTUNITIES

Students have numerous opportunities to participate in interdisciplinary projects and undergraduate research with faculty. Additionally, students can choose to work on projects directly with industry partners as part of their coursework.

Why Western Washington University?

Western’s Engineering & Design programs place an emphasis on practical, hands-on laboratory experiences, in addition to strong theoretical coursework. Each program’s curriculum is designed with input from an industrial advisory committee to prepare graduates for professional positions in industry.

Where are our graduates working?

Graduates of the programs have consistently been placed in positions appropriate to their field of study.

Job titles of some of our graduates:

- Electronic Design Engineer
- Electrical Engineer
- Industrial Designer
- User Experience Designer
- Composite Design Engineer
- Manufacturing Planner
- Material Scientist
- Manufacturing Engineer
- Race Engineer
- Process Engineer
- Ski Boot Design Engineer
- Hardware Design Engineer

Recent graduates are employed by the following companies:

- Alcoa
- Boeing
- Bose
- Fluke
- Hexcel
- Honeywell Aerospace
- Janicki Industries
- K2 Sports
- Nike
- PACCAR
- PEXCO
- R & D Plastics
- SpaceX
- Teague
- Terex Corporation
- Tesla Motors
- Zodiac Aerospace
Advising and Admissions

After acceptance to WWU, students start out as a pre-major and then apply to their major of interest. Our programs are competitive and require specific prerequisite courses. Seek advising early from the pre-major advisor for curriculum questions and major admission requirements.

Visiting Campus

To schedule a tour of the facilities and get advising questions answered in person, contact the pre-major advisor to schedule an appointment.

Lisa Ochs, Pre-major Advisor
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