



What can I do with a major in **ELECTRICAL ENGINEERING** from Valparaiso University?

Description of major:

The application of scientific theories and principles in the design, production, installation, testing, service, use, and control of electrical and electronic parts, equipment, and systems. The Electrical Engineering program is designed to provide a variety of career opportunities in industries as diverse as aerospace, communications, computers, manufacturing and power.

Relevant skills for a ELECTRICAL ENGINEERING major:

- ◆ Analyze needs
- ◆ Analyze technical information
- ◆ Analyze, organize & interpret scientific data
- ◆ Calculate
- ◆ Communicate verbally and in writing
- ◆ Concentrate for long periods of time
- ◆ Conduct & clearly communicate scientific research
- ◆ Define/clarify problems
- ◆ Diagnose
- ◆ Have aptitude for accurate details, spatial perception and abstract reasoning
- ◆ Have form perception
- ◆ Have proficiency in mathematics and physical sciences
- ◆ Make keen observations and sound judgments
- ◆ Meet deadlines
- ◆ Operate, program, & use the computer
- ◆ Organize
- ◆ Perform precise work
- ◆ Read, interpret, and follow directions, schematic drawings, diagrams, & blueprints
- ◆ Solve problems
- ◆ Supervise
- ◆ Test equipment
- ◆ Trouble shoot
- ◆ Use instruments and engineering tools
- ◆ Visualize objects from pictures or descriptions
- ◆ Work in teams
- ◆ Work well with others
- ◆ and others!

Sample work activities for Graduates in ELECTRICAL ENGINEERING (some may require an advanced degree)

- Acoustical Engineer
- Aeronautical Engineer
- Applications Engineer
- Associate Engineer
- Biomedical Engineer
- Circuit Engineer
- Communications Engineer
- Component Design Engineer
- Computer Engineer
- Consulting Engineer
- Control Engineer
- Customer Service Engineer
- Design Engineer
- Development Engineer
- Digital Design Engineer
- District Resource Manager
- Electrical Engineer
- Electrical Engineering Instructor/Professor
- Electronics Engineer
- Environmental Engineer
- Field Service Engineer
- Fire Protection Engineer
- Hardware Engineer
- Illuminating Engineer
- IT Consultant
- Measurement Engineer
- Network Engineer
- Nuclear Engineer
- Operations Supervisor
- Physicist
- Plant Manager
- Product Test Engineer
- Production Control Specialist
- Production Supervisor
- Project Manager
- Radio & Electrical Inspector
- Radio Engineer
- RF Engineer
- Safety Engineer
- Software Engineer
- Systems Analyst
- Technical Sales Engineer
- Technical Support Engineer
- Technical Writer
- Test Engineer
- Transmissions Engineer
- and others!

Potential hiring institutions for ELECTRICAL ENGINEERING majors:

- ◆ Aerospace
- ◆ Automobile manufacturers
- ◆ Computer firms
- ◆ Computer hardware manufacturers
- ◆ Consulting engineering firms
- ◆ Computer game developers
- ◆ Educational institutions
- ◆ Electronic equipment manufacturers
- ◆ Government agencies
- ◆ Industrial firms
- ◆ Internet service providers
- ◆ Manufacturing firms
- ◆ Office equipment manufacturers
- ◆ Private laboratories
- ◆ Telecommunications firms
- ◆ Utility companies
- ◆ Video game developers
- ◆ Web page management companies
- ◆ and others!

Area of further education for ELECTRICAL ENGINEERING majors:

- Acoustics
- Aerospace/Aeronautical Engineering
- Applied Physics
- Applied Science & Technology
- Artificial Intelligence/Robotics
- Automotive Engineering
- Aviation
- Biochemical Engineering
- Biomedical Engineering
- Biotechnology
- Business Administration
- Computer Engineering
- Computer Science
- Education
- Electrical Engineering
- Energy & Power Engineering
- Engineering
- Engineering Design
- Engineering Management & Policy
- Financial Engineering
- Human-Computer Interaction
- Industrial/Management Engineering
- Information Science
- Law
- Management of Technology
- Mathematical Physics
- Medical Informatics
- Nuclear Engineering
- Operations Research
- Optical Sciences
- Patent Law
- Physics
- Plasma Physics
- Safety Engineering
- Software Engineering
- Solid State Physics
- Systems Engineering
- Systems Science
- Technology & Public Policy
- Telecommunications
- Telecommunications
- Theoretical Physics
- and others!

Sources of additional information for ELECTRICAL ENGINEERING majors:

- ◆ VU Department of Electrical & Computer Engineering: <http://www.valpo.edu/engineering/electrical/object.php>
- ◆ Occupational Outlook Handbook: the US Bureau of Labor Statistics compiles information about various occupations, including the nature of the work, the job outlook, the earnings, and other relevant information. <http://stats.bls.gov/oco/home.htm>
- ◆ American Council of Engineering Companies: Has a member directory to look up potential employers. <http://www.acec.org>
- ◆ Consulting Engineers Council of Illinois: a not-for-profit statewide association of 220 consulting engineering and land surveying firms engaged in the private practice of engineering. Member firms engage in the disciplines of civil, electrical, geotechnical, mechanical, structural, architectural and acoustical engineering, as well as surveying. Information about member firms is all available online. <http://www.cec-il.org>
- ◆ Discover Engineering Online: Promotes the engineering profession as a career choice among young people and to recognize the accomplishments of the world's engineers. <http://www.discoverengineering.org>
- ◆ ElectricalEngineer.com: corporate recruiting and job search site for electrical engineers and related professions. <http://www.electricalengineer.com/>
- ◆ EngineerJobs.Com: job listings for engineers and technical professionals. <http://www.engineerjobs.com/>
- ◆ Engineering Central: engineering job openings - including hard-to-find entry-level engineering job openings. <http://www.engcen.com>
- ◆ Engineering News-Record The Construction Weekly, posting the jobs online and allowing access to terrific information. Search the jobs by job title, keyword, location, or view the ads from specific issues of ENR. Jobs out for bid are also listed at this site. <http://www.enr.com/>

- ◆ Institute of Electrical and Electronics Engineers (IEEE): an organization dedicated that is: 1) a resource to help individuals establish a solid, lasting career in Electronic, Electrical & Computer Engineering; 2) an advocate for all engineers to create a stable and productive work environment; and 3) a voice to build a strong and competitive US market. Site includes an extensive Career component and . <http://www.ieeeusa.org/>
- ◆ National Society for Professional Engineers: the only engineering society that represents individual engineering professionals and licensed engineers (PEs) across all disciplines. Site includes a Student section. <http://www.nspe.org/>
- ◆ National Society of Black Engineers: a student-managed organization with more than 250 chapters on college campuses and 50 alumni chapters nationwide. Includes Jobs. <http://www.nsbe.org/>
- ◆ Professional & Technical Consultants Association: a professional association of independent consultants and principals who work in small consulting firms in a variety of technical and non-technical fields. Site includes a Directory of Consultants. <http://www.patca.org/>
- ◆ Society of Hispanic Professional Engineers: social-technical organization whose primary function is to enhance and achieve the potential of Hispanics in engineering, math, and science. <http://www.shpe.org/>
- ◆ Society of Women Engineers: promotes the advancement of women as engineering professionals. Includes Career Guidance and a Jobs section. <http://www.swe.org/>

VU Career Center Resource Library Materials:

- *Book of U.S. Government Jobs: Where They Are, What's Available, and How to Get One*
- *Career Opportunities in Computers and Cyber-space*
- *Careers for Number Crunchers & Other Quantitative Types*
- *Essays that Worked for Law Schools*
- *GMAT 2003*
- *Graduate Admissions Essays: Write Your Way into the Graduate School of Your Choice*
- *Graduate Programs in Engineering and Computer Science*
- *Graduate Programs in Physical Sciences*
- *Graduate Schools in the U.S*
- *Great Jobs for Engineering Majors*
- *Guide to America's Federal Jobs*
- *Is there An Engineer Inside You?*
- *Job Surfing: The Sciences – Research & Medicine*
- *LSAT 2006*
- *Opportunities in Aerospace Careers*
- *Opportunities in Computer Careers*
- *Opportunities in Engineering Careers*
- *Opportunities in Government Careers*
- *Opportunities in Law Careers*
- *Opportunities in Technical Sales Careers*
- *Peterson's Game Plan for Getting into Business School*
- *Peterson's Game Plan for Getting into Graduate School*
- *Peterson's Game Plan for Getting into Law School*
- *Peterson's Graduate & Professional Programs in Business, Education, Health, Information Studies, Law & Social Work*
- *Peterson's Graduate & Professional Programs in Engineering & Applied Sciences*
- *Peterson's Graduate & Professional Programs, An Overview*
- *PhD Factory: Training and Employment of Science and Engineering Doctorates in the United States*
- *Resumes for Computer Careers*
- *Resumes for Engineering Careers*
- *Resumes for High-Tech Careers*
- *Resumes for Scientific and Technical Careers and others!*

For more information about majoring in ELECTRICAL ENGINEERING, contact:

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For information about Cooperative Education or Internships in the Department of Electrical Engineering, contact the Department Chair.

For more questions about your career decisions, please make an appointment with a VU Career Counselor by calling 464-5005, stopping by the Career Center in Alumni Hall or e-mailing us at Career.Center