What Can I Do With A Major In:  
Electrical Engineering

Western Carolina University Center for Career and Professional Development  
828.227.7133, CCPD Website

DESCRIPTION
The primary mission of the EE program is to produce well-educated graduates who are employable in professional areas such as engineering design, modeling, prototyping, fabrication, testing, engineering sales, or analysis of electrical and photonic products and systems. Graduates may also continue their education at the graduate level.

WHAT JOBS ARE AVAILABLE?

<table>
<thead>
<tr>
<th>Computer Network Engineer</th>
<th>Electrical Drafter</th>
<th>Electrical Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Technician</td>
<td>Electro-Mechanical Technician</td>
<td>Electronic Drafter</td>
</tr>
<tr>
<td>Electronics Engineer</td>
<td>Engineering Professor</td>
<td>Mechanical Drafter</td>
</tr>
<tr>
<td>Instrument Technician</td>
<td>Sales Engineer</td>
<td>Engineering Design</td>
</tr>
<tr>
<td>Modeling</td>
<td>Prototyping</td>
<td>Fabrication</td>
</tr>
<tr>
<td>Analysis of Electrical Products</td>
<td>Analysis of Electrical Systems</td>
<td>Engineering Sales</td>
</tr>
<tr>
<td>Analysis of Photonic Products</td>
<td>Analysis of Photonic Systems</td>
<td>Testing</td>
</tr>
<tr>
<td>Research Engineer</td>
<td>Design Engineer</td>
<td>Project Engineer</td>
</tr>
<tr>
<td>Test Engineer</td>
<td>System Engineer</td>
<td>Application Engineer</td>
</tr>
<tr>
<td>Consulting</td>
<td>Software Engineer</td>
<td>Hardware Engineer</td>
</tr>
</tbody>
</table>

WHO EMPLOYS STUDENTS WITH THIS MAJOR?

INTERNSHIP INFORMATION
At Western Carolina University there are numerous internship opportunities for students. In some cases internships are established through a faculty member in the student's major. Oftentimes students find part-time jobs in an area related to their field of study. When this happens, students should discuss with their academic advisor the possibility of receiving college credit. Generally, three hours of general elective credit can be earned for a minimum of 200 hours of experience.

WHAT SKILLS ARE LEARNED IN THE CLASSROOM?
- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design an conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired need within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
● an understanding of the professional and ethical responsibility;
● an ability to communicate effectively;
● the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
● recognition of the need for, and an ability to engage in life-long learning;
● a knowledge of contemporary issues; and
● an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

KNOWLEDGE
1. Apply their technical knowledge as practicing professionals or engage in graduate education.
2. Work successfully in their chosen career individually and within a professional team environment.
3. Engage in professional development in their profession by adapting to new technology and career challenges.

PROFESSIONAL RESOURCES
● Institute of Electrical and Electronics Engineers: https://www.ieee.org/index.html?WT.mc_id=hpf_logo
● Institution of Engineering and Technology: http://www.theiet.org/

ADDITIONAL RESOURCES
● SPIE: http://spie.org/

CONTACT INFORMATION
Department of Engineering and Technology
Center for Career and Professional Development
220 Belk Building
Killian Annex 205
828-227-2775
etdept@wcu.edu

828-227-7133
careerservices@wcu.edu