

## Career Information for Electrical Engineering

A College of Science & Engineering major

### General Overview Information

Electrical, electronics, and communications engineering programs prepare people to use math and science to design electrical systems. Such systems may include medical equipment such as pacemakers, health monitoring devices, and treatment devices; communication devices such as cell phones, two-way radios, and data transmission devices; consumer electronics such as televisions, computers, household electronics, or electronic games; industrial equipment such as process control equipment, power generation, and monitoring equipment. Students will learn about analog and digital electronics, microprocessor systems, digital communication, computer aided design, solid state devices, electromagnetics, control systems, instrumentation, and computer hardware development.

### Do You Have These Characteristics?

Team Worker · Logical Thinker · Mechanical & scientific Aptitude · Analytical Ability  
Ability to Work with Precision · Excellent Mathematical Skills · Detail Oriented

### Salary Information Can Be Found At:

[www.bls.gov/bls/blswage.htm](http://www.bls.gov/bls/blswage.htm)    [www.iseek.org](http://www.iseek.org)    [www.stcloudstate.edu/careerservices](http://www.stcloudstate.edu/careerservices)

### What Can You Do?

- Device Design Engineer
- Control Systems Engineer
- Quality Control Engineer
- Digital Systems Design Engineer
- Analog Design Engineer
- Computer Aided Design
- Digital Communications
- Fiber Optics
- Process Engineer
- Wireless Systems Engineer
- Field Service Engineer
- Integrated Circuit Design

### Where Can You Work?

- Equipment Manufacturing Firms
- Industrial Machinery Manufacturing
- Professional & Scientific Instruments
- Communications & Public Utilities
- Aircraft & Guided Missile Design
- Computer & Data Processing Firms
- Government Agencies
- Consulting Firms
- Computer Systems
- Medical Systems
- ....and MORE!!

### Resources

- SCSU Electrical Engineering – <http://www.stcloudstate.edu/ece/>
  - Occupational Outlook Handbook – <http://www.bls.gov/oco/ocos027.htm>
  - Institute of Electrical & Electronics Engineers – [www.ieee.org](http://www.ieee.org)
  - Sloan Career Cornerstone Center – [www.careercornerstone.org](http://www.careercornerstone.org)
  - *A/E/C Employers*
  - *Career Opportunities in Engineering*
  - *Careers for Scientific Types and Others with Inquiring Minds*
  - *Careers in Renewable Energy*
  - *Expert Resumes for Engineers*
  - *Handbook of Scientific & Technical Careers*
  - *Minnesota Business Directory*
  - *National Trade and Professional Associations*
  - *Resumes for Engineering Careers*
  - *Resumes for Science Careers*
- (Books are available at SCSU Career Services Center)