

# Electrical Technology

Electrical Technology is a professional career field usually involving testing, installation and maintenance of all types of electrical equipment. Graduates are employed in a variety of technical fields including: prototyping, testing, automation/robotics, instrumentation, equipment installation and maintenance. Because of their wide range of specialties and capabilities. Electrical Technologists are employable in numerous industries, and enjoy excellent starting salaries and opportunities for career advancement. NMU students can concentrate their studies on General Electronics, Industrial Electrical, or Electrical Power Technician depending on their future work interests.

## Skills and Competencies

Electrical Technologists perform a variety of important functions in industry and it is therefore important for them to be knowledgeable in a number of areas. You must not only have a good grasp of current technology but also become a self-directed learner to keep up with technological advancements. You will need to apply current knowledge and be able to adapt to and implement evolving technology. A strong background in electrical basics with area specific knowledge will allow you to be productive immediately when initially employed and able to handle new technology as it becomes available. Being able to work in teams to identify, analyze and solve technical problems in essential, as are effective communication skills.

## Course Work

This degree includes the following courses as part of the program requirements, and specific major requirements along with general education courses and graduation requirements.

### Core

ET112	DC Circuit Analysis (4 cr.)
ET113	AC Circuit Analysis (4 cr.)
ET210	Discrete Semiconductors (4 cr.)
ET211	Digital Electronics (4 cr.)
IT010	Exit Seminar (0 cr.)

### Major Concentration (15-23 cr.)

#### *General Electronics Concentration (15 cr.)*

ET212	Advanced Linear Circuits (3 cr.)
General ET Credits (200-level or higher) (12 cr.)	

#### *Industrial Electrical Concentration (23 cr.)*

ET202	Industrial Wiring (2 cr.)
ET212	Advanced Linear Circuits (3 cr.)
ET250	Industrial Electrical Machinery (4 cr.)
ET252	Industrial Motor Controls (4 cr.)
ET311	Applied Programmable Controllers (2 cr.)
ET360	Process Control Systems (3 cr.)
IT180	Introduction to Fluid Power (3 cr.)
IT215	General Industrial Safety (2 cr.)

#### *Electrical Power Technician (17 cr.)*

ET180	Substation Equipment (4 cr.)
ET255	Transformers (4 cr.)
ET270	3D Power & Equipment (4 cr.)
ET280	Protective Relay Systems (3 cr.)
IT215	General Industrial Safety (2 cr.)

Electives (4-12 cr.)

## Career Development

You should begin the resume-building process as soon as you can. The Academic and Career Advisement Center can assist you with career planning, while Career Services will help you fine tune your resume and look for jobs related to your field. In the meantime, the more hands-on experience you have, the better the chances are that you will find a job. Becoming involved in a professional related internship is a way to develop your professional skills and gain experience. Your academic course work is important as well, so be sure to maintain a high grade point average.

## Additional Considerations

Electrical Technology is an Associate of Applied Science that should take four semesters or two years to complete. These credits can then be used to continue for the Electronic Engineering Technology baccalaureate degree without losing any credits or time.

## Job Outlook

The job market will increase slowly at a 7% rate in the coming year. The median salary for electrical technician workers is \$40,000 to \$50,000.

# Potential Careers

NMU's Electrical Technology Program prepares students for employment in the following careers:

Industrial Electrician

Electronics Technician

Field Service Engineer

Relay Technician

Substation Technician

# Additional Resources and Information

For Career Planning and Opportunities:  
Academic & Career Advisement Center  
3302.1 C.B. Hedgcock  
906-227-2971  
103 Jacobetti Complex  
906-227-2283  
[www.nmu.edu/acac](http://www.nmu.edu/acac)

Engineering Technology  
123 Jacobetti Complex  
906-227-2141  
[www.nmu.edu/engineering](http://www.nmu.edu/engineering)

For Job Search, Resume and Career Information:  
Career Services  
3302.3 C.B. Hedgcock  
906-227-2800  
[www.nmu.edu/careers](http://www.nmu.edu/careers)

For Information about NMU Student Organizations Associated with this Major Contact:  
Center for Student Enrichment  
1206 University Center  
906-227-2439  
[www.nmu.edu/cse](http://www.nmu.edu/cse)

Internet Resource Links:  
[www.careers.org](http://www.careers.org)  
[www.bls.gov](http://www.bls.gov)

For Career Information with National Organizations:  
[www.iscet.org](http://www.iscet.org) -International Society of Certified  
Electronics Technicians



**NORTHERN MICHIGAN  
UNIVERSITY**

The Academic & Career Advisement Center  
2021



What to do with  
a major in...

**Electrical Technology**  
Associate's Degree

