

ELECTRICAL ENGINEERING

Electrical Engineering encompasses research, development, design and operation of Electrical and Electronic systems and their components. Similar to all accredited engineering programs, the Electrical Engineering curriculum requires students to complete courses in mathematics, physical sciences and engineering.

PROGRAMS



DEGREES AND CERTIFICATES

- Bachelor of Science in Electrical Engineering
- Master of Science in Electrical Engineering
- Master of Science in Engineering

ABOUT THE PROGRAM

This program leads to a Bachelor of Science in Electrical Engineering (BSEE). The primary objective of the Electrical Engineering program is to educate engineering professionals with a sound design and analytical background and strong laboratory experience. Students will experience multiple hands-on laboratories throughout the program.

REAL-WORLD CONNECTIONS



SKILLS AND TALENTS

- Extensive Electrical Knowledge
- Research
- Design and Planning
- Development and Operation
- Control Systems
- Understanding of Circuits

CAREERS

- Electrical Engineer
- Controls Engineer
- Electrical Design Engineer
- Design Engineer
- Electrician
- Power Engineer

EMPLOYERS

- 3M
- Advanced Process Technologies
- Emerson
- Google
- Honeywell
- Medtronic

INSPIRED ACTION



EMPLOYMENT RATE

93.3%
of program graduates begin their careers within one year of graduation.

Graduates: 127
Respondents: 102
link.mnsu.edu/graduate-follow-up

MEDIAN SALARY

\$72,800

The median annual wage for Electrical and Electronic Engineering Technologists and Technicians in May 2023.

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Electrical and Electronic Engineering Technologists and Technicians, at link.mnsu.edu/electrical-engineering-salary

PROGRAM WEBSITE



cset.mnsu.edu/ecet



SAMPLE FOUR-YEAR PLAN - ELECTRICAL ENGINEERING, BS

First Year (Fall)	First Year (Spring)
ENG 101 Foundations of Writing & Rhetoric (4) EE 105 Introduction to Electrical and Computer Engineering & Technology (1) EE 106 Fundamental Digital System Design for Electrical and Computer Engineers (3) MATH 121 Calculus I (4) CHEM 191 Chemistry Applications (3)	EE 107 Introduction to Electrical and Computer Engineering Through Software Development (3) MATH 122 Calculus II (4) PHYS 221 General Physics I (4) ENG 271W Technical Communication (4) General Education Course (3)
Second Year (Fall)	Second Year (Spring)
PHYS 222 General Physics II (3) PHYS 232 General Physics II Laboratory (1) EE 230 Circuit Analysis I (3) EE 240 Evaluation of Circuits (1) EE 281 Digital System Design with Testability (3) EE 282 Digital System Design with Testability Lab (1) Math 321 Ordinary Differential Equations (4)	EE 231 Circuit Analysis II (3) MATH 223 Calculus III (4) PHYS 223 General Physics III (3) PHYS 233 General Physics III Laboratory (1) EE 234 Microprocessor Engineering I (3) EE 235 Microprocessor Engineering Laboratory I (1) EE 241 Electric Circuits Lab (1)
Third Year (Fall)	Third Year (Spring)
EE 303 Introduction to Solid State Devices (3) EE 304 Lab: Introduction to Solid State Devices (1) EE 332 Electronics I (3) EE 336 Principles of Engineering Design I (1) EE 341 Signals & Systems (3) EE 342 Electronics Laboratory (1) Elective Course in Major (3)	EE 333 Electronics II (3) EE 337 Principles of Engineering Design II (1) EE 343 Electronics II Laboratory (1) EE 350 Engineering Electromagnetics (3) EE 353 Communication Systems Engineering (3) EE 358 Control Systems (3) EE 363 Communication Systems Laboratory (1) EE 368 Control Systems Laboratory (1)
Fourth Year (Fall)	Fourth Year (Spring)
EE 450 Engineering Economics (3) EE 467W Principles of Engineering Design III (1) EE 482 Electromechanics (3) General Education Course (3) Elective Course in Major (3) Elective Course in Major (3)	EE 477W Principles of Engineering Design IV (1) General Education Course (3) General Education Course (3) General Education Course (3) Elective Course in Major (3) Elective Course in Major (3)

For more information about program requirements, visit:

mnsu.edu/academics/academic-catalog

LEARN MORE

**Department of Electrical and
Computer Engineering and Technology**

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507-389-5747

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