### Electrical Engineering Technology
- Bachelor of Science (B.S.)
- Program Curriculum

#### Mathematics/Science coursework  22 cr.
- **CS 1160 - C/C++ Programming**  3 cr.
- **PHYSICS 1511 - General Physics I**  4 cr.  
  - course also satisfies UNIFI Scientific Reasoning requirement.
- **PHYSICS 1512 - General Physics II**  4 cr.
- **STAT 1772 - Introduction to Statistical Methods**  3 cr.  
  - course also satisfies UNIFI Quantitative Reasoning requirement.
- Math coursework (select two from the list below)  8 cr.
  - **MATH 1140 - Precalculus**  4 cr.
  - **MATH 1150 - Calculus for Technology**  4 cr.
  - **MATH 1420 - Calculus I**  4 cr.
  - **MATH 1421 - Calculus II**  4 cr.

#### Technical Core  54 cr.
- **TECH 1037 - Introduction to Circuits**  3 cr.
- **TECH 1039 - Circuits & Systems**  3 cr.
- **TECH 2038 - Introduction to Electrical Power & Machinery**  3 cr.
- **TECH 2041 - Introduction to Analog Electronics**  3 cr.
- **TECH 2042 - Introduction to Digital Electronics**  3 cr.
- **TECH 3129 - Linear Control Systems**  3 cr.
- **TECH 3152 - Advanced Analog Electronics**  3 cr.
- **TECH 3156 - Advanced Digital Electronics**  3 cr.
- **TECH 3157 - Microcontroller Applications**  3 cr.
- **TECH 3160 - Computer-Aided Instrumentation & Interfacing**  3 cr.
- **TECH 3164 - Programmable Logic Controllers**  3 cr.
- **TECH 3166 - Advanced Electrical Power Systems**  3 cr.
- **TECH 4103 - Electronic Communications**  3 cr.
- **TECH 4104 - Applied Digital Signal Processing**  3 cr.
- **TECH 4165 - Wireless Communication Networks**  3 cr.
- **TECH 4167 - Power Electronics Application**  3 cr.
- **TECH 4220 - Senior Design**  3 cr.
- **ENGLISH 3772 - Tech. Writing for Eng. Technologists**  3 cr.

#### UNI Foundational Inquiry  37 cr.
- Written Communications  3 cr.
- Oral Communications  3 cr.
- Quantitative Reasoning  3 cr.  
  - requirement completed with STAT 1772.
- Human Condition (Domestic)  3 cr.
- Human Condition (Global)  3 cr.
- Scientific Reasoning  4 cr.  
  - requirement completed with PHYSICS 1511.
- Human Expression  3 cr.
- Responsibility  3 cr.
- UNIFI Elective  3 cr.
- UNIFI Elective  3 cr.
- UNIFI Elective  3 cr.
- UNIFI Elective  3 cr.

Inspired by the University of Northern Iowa mission to engage students in high-quality and high-impact learning experiences within a challenging and supportive environment, UNI's new general education requirements are designed to ensure that students' foundational learning experiences lead to a lifetime full of potential. For more information, visit unifi.uni.edu.

#### Credit Totals
- Math/Science coursework  22 cr.
- Technical Core coursework  54 cr.
- UNI Foundational Inquiry (UNIFI)  37 cr.
- Credits counted twice (major & UNIFI)  7 cr.
- Total  106 cr.
- University Electives needed  20 cr.
- Grand Total  126 cr.

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**Important ALEKS Test Information**
The ALEKS test is a math placement test that all UNI students must complete prior to enrolling in certain math & science courses. Below are the scores required for the math & science requirements in this program:

- PHYSICS 1511: 45
- STAT 1772: 50
- MATH 1150: 61
Example course sequence for first-year, freshman students

Students MUST complete the ALEKS test before proceeding with Math/Science coursework.

Fall 1 (17 cred.)
- UNIFI Written Communications
- TECH 1037: Intro to Circuits
- TECH 2038: Intro to Electrical Power & Machinery
- TECH 3166: Advanced Electrical Power Systems
- MATH 1140: Precalculus
- PHYSICS 1511: General Physics I

Spring 1 (16 cred.)
- UNIFI Oral Communications
- TECH 1039: Circuits & Systems
- TECH 2041: Intro to Analog Electronics
- TECH 3152: Advanced Analog Electronics
- MATH 1150: Calculus for Technology
- University elective

Fall 2 (15 cred.)
- UNIFI Human Condition (Domestic)
- TECH 2039: Intro to Electrical Power & Machinery
- TECH 2042: Intro to Digital Electronics
- CS 1160: C/C+ Programming
- University elective

Spring 2 (15 cred.)
- UNIFI Human Expression
- TECH 2039: Intro to Electrical Power & Machinery
- TECH 2042: Intro to Digital Electronics
- University elective

Fall 3 (15 cred.)
- UNIFI Human Condition (Global)
- TECH 3129: Linear Control Systems
- University elective

Spring 3 (16 cred.)
- UNIFI Responsibility
- TECH 2040: Computer-Aided Instrumentation & Interfacing
- TECH 314: Programmable Logic Controllers
- ENGLISH 3772: Technical Writing for Engineering Technologists
- University elective

Fall 4 (17 cred.)
- UNIFI Elective
- TECH 4103: Electronic Communications
- TECH 4165: Wireless Communication Networks
- University elective (5 cred.)

Spring 4 (15 cred.)
- UNIFI Elective
- TECH 4104: Applied Digital Signal Processing
- TECH 4167: Power Electronics Applications
- TECH 4220: Senior Design
- University elective

Example course sequence for transfer student with an A.A. or A.S. degree

Students MUST complete the ALEKS test before proceeding with Math/Science coursework.

Fall 1 (14 cred.)
- TECH 1037: Intro to Circuits
- TECH 3166: Advanced Electrical Power Systems
- MATH 1150: Precalculus
- PHYSICS 1511: General Physics I
- ENGLISH 3772: Technical Writing for Engineering Technologists

Spring 1 (13 cred.)
- TECH 1039: Circuits & Systems
- TECH 2039: Intro to Electrical Power & Machinery
- MATH 1150: Calculus for Technology
- TECH 315: Advanced Digital Electronics
- STAT 1772: Intro to Statistical Methods

Fall 2 (12 cred.)
- TECH 2038: Intro to Electrical Power & Machinery
- TECH 2041: Intro to Analog Electronics
- TECH 2042: Intro to Digital Electronics
- CS 1160: C/C+ Programming

Spring 2 (13 cred.)
- TECH 3166: Advanced Electrical Power Systems
- TECH 3152: Advanced Analog Electronics
- TECH 3156: Advanced Digital Electronics
- PHYSICS 1512: General Physics II

Fall 3 (12 cred.)
- TECH 3129: Linear Control Systems
- TECH 4103: Electronic Communications
- TECH 4104: Applied Digital Signal Processing
- TECH 4167: Power Electronics Applications

Spring 3 (12 cred.)
- TECH 3160: Computer-Aided Instrumentation & Interfacing
- TECH 4104: Applied Digital Signal Processing
- TECH 4167: Power Electronics Applications
- TECH 4220: Senior Design

Important ALEKS Test Information

The ALEKS test is a math placement test that all UNI students must complete prior to enrolling in certain math & science courses. Below are the scores required for the math & science requirements in this program:
- PHYSICS 1511: 45
- STAT 1772: 50
- MATH 1150: 61