Electrical Engineering Technology

- Bachelor of Science (B.S.)
- Recommended Course Sequence

## Fall 1 (16 cred.)
- **LAC 1A - Cornerstone**
- **LAC 5C**
- **LAC 1B - Cornerstone**
- **LAC 2A**
- **LAC 1D (2 cred.)**
- **LAC 5B**
- **LAC 4A**
- **LAC 6 - Capstone**
- **LAC 2A**
- **LAC 5A**

## Spring 1 (15 cred.)
- **LAC 3B**
- **LAC 3A**

## Fall 2 (16 cred.)
- ** TECH 1037: Introduction to Circuits** *offered FALL ONLY*
- ** TECH 1039: Circuits & Systems** *offered SPRING ONLY*
- ** TECH 1042: Intro to Digital Electronics** *offered FALL ONLY*
- ** TECH 1041: Intro to Analog Electronics** *offered FALL ONLY*
- ** TECH 2038: Intro to Elec. Power & Machinery** *offered FALL ONLY*
- ** TECH 2039: Circuits & Systems** *offered SPRING ONLY*

## Spring 2 (16 cred.)
- ** TECH 3129: Linear Control Systems** *offered FALL ONLY*
- ** TECH 3132: Advanced Analog Electronics** *offered SPRING ONLY*
- ** TECH 3138: Advanced Electrical Power Systems** *offered SPRING ONLY*

## Fall 3 (17 cred.)
- ** TECH 3107: Microcontroller Applications** *offered FALL ONLY*
- ** TECH 3166: Advanced Electrical Power Systems** *offered SPRING ONLY*
- ** TECH 3156: Advanced Digital Electronics** *offered SPRING ONLY*
- ** TECH 3160: Comp.-Aided Instru. & Interfacing** *offered SPRING ONLY*

## Spring 3 (15 cred.)
- ** TECH 4103: Electronic Communications** *offered FALL ONLY*
- ** TECH 4104: Applied Digital Signal Processing** *offered SPRING ONLY*

## Fall 4 (16 cred.)
- ** TECH 4105: Wireless Communication Networks** *offered FALL ONLY*
- ** TECH 4157: Communication Systems** *offered SPRING ONLY*

## Spring 4 (15 cred.)
- ** TECH 4167: Power Electronics Applications** *offered SPRING ONLY*

* All classes receive 3 credit hours unless otherwise noted.

### University Elective
- ** University Elective (2 cred.)

### PHYSICS 1511 - General Physics I (4 cred.)
(Also satisfies LAC 4B)

### TECH 2042: Intro to Digital Electronics
*offered FALL ONLY*

### TECH 2041: Intro to Analog Electronics
*offered FALL ONLY*

### TECH 2038: Intro to Elec. Power & Machinery
*offered FALL ONLY*

### TECH 2039: Circuits & Systems
*offered SPRING ONLY*

### TECH 3129: Linear Control Systems
*offered FALL ONLY*

### TECH 3132: Advanced Analog Electronics
*offered SPRING ONLY*

### TECH 3138: Advanced Electrical Power Systems
*offered SPRING ONLY*

### TECH 3156: Advanced Digital Electronics
*offered SPRING ONLY*

### TECH 3160: Comp.-Aided Instru. & Interfacing
*offered SPRING ONLY*

### TECH 3164: Programmable Logic Controllers
*offered SPRING ONLY*

### TECH 4103: Electronic Communications
*offered FALL ONLY*

### TECH 4104: Applied Digital Signal Processing
*offered SPRING ONLY*

### TECH 4157: Communication Systems
*offered SPRING ONLY*

### TECH 4167: Power Electronics Applications
*offered SPRING ONLY*

### ENGLISH 3772: Technical Writing for Engineering Technologists

### 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 1140 & MATH 1150: 61**

---

**Legend:**
- Liberal Arts Core (LAC)
- Math/Science Coursework
- Technical Core
- Tech. Writing Coursework
- University Elective
  - Prerequisite
  - Co-requisite

---

**Department of Technology**
University of Northern Iowa
25 Industrial Technology Center
Cedar Falls, IA 50614-0178
Phone: (319) 273-2561 || E-mail: technology@uni.edu
# Electrical Engineering Technology

- **Bachelor of Science (B.S.)**
- **Program Curriculum**

## Mathematics/Science coursework (22 cred.)
- **CS 1160 - C/C++ Programming** 3 cr.
- **PHYSICS 1511 - General Physics I** 4 cr.
  - course also satisfies LAC category 4B
- **PHYSICS 1512 - General Physics II** 4 cr.
- **STAT 1772 - Introduction to Statistical Methods** 3 cr.
  - course also satisfies LAC category 1C
- 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 (52 cred.)
- **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 4174 - Senior Design I** 1 cr.
- **TECH 4176 - Senior Design II** 3 cr.

## Technical Writing coursework (3 cred.)
- **ENGLISH 3772 - Tech. Writing for Engineering Technologists** 3 cr.

## Liberal Arts Core (LAC) (44-45 cred.)

### Category I - Core Competencies (11 cred.)
- A. Reading & Writing 3 cr.
- B. Speaking & Listening 3 cr.
- C. Quantitative Techniques & Understanding 3 cr.
  - category completed with STAT 1772
- D. Personal Wellness 2 cr.

### Category II - Civilizations & Cultures (9 cred.)
- A. Humanities 6 cr.
- B. Non-Western Cultures 3 cr.

### Category III - Fine Arts, Literature, Philosophy & Religion (6 cred.)
- A. Fine Arts 3 cr.
- B. Literature, Philosophy or Religion 3 cr.

### Category IV - Natural Science & Technology (7 cred.)
- A. Life Sciences 3 cr.
- B. Physical Science 4 cr.
  - category completed with PHYSICS 1511

### Category V - Social Science (9 cred.)
- A. Sociocultural & Historical Perspectives 3 cr.
- B. Individual & Institutional Perspectives 3 cr.
- C. Topical Perspectives 3 cr.

### Category VI - Capstone Experience (2-3 cred.)

For detailed information regarding the Liberal Arts core (LAC), please visit uni.edu/lac.

## Credit Totals

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math/Science coursework</td>
<td>22 cr.</td>
</tr>
<tr>
<td>Technical Core</td>
<td>52 cr.</td>
</tr>
<tr>
<td>Technical Writing coursework</td>
<td>3 cr.</td>
</tr>
<tr>
<td>Liberal Arts Core (LAC)</td>
<td>45 cr.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>115 cr.</td>
</tr>
<tr>
<td>University Electives needed</td>
<td>11 cr.</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>126 cr.</td>
</tr>
</tbody>
</table>

## 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 1140 & MATH 1150: 61