### Electrical Engineering Technology B.S. Course Sequence (typical)
#### Catalog - 2014/2015

Total undergraduate credits 126

<table>
<thead>
<tr>
<th>Freshman (Fall)</th>
<th>Freshman (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL103 - Composition I</td>
<td>3 CHEM 110 - Chem or CHEM 210 - General Chem I</td>
</tr>
<tr>
<td>3 COMS 100 - Fundamentals of Oral Communication</td>
<td>1 CHEM 111 - Chem Lab or CHEM 212 - Gen Chem Lab I</td>
</tr>
<tr>
<td>4 MATH 229 - Calculus I</td>
<td>3 ENGL104 - Composition II</td>
</tr>
<tr>
<td>4 PHYS 210 - General Physics</td>
<td>4 MATH 230 - Calculus II</td>
</tr>
<tr>
<td>3 General Education Requirement 1</td>
<td>3 TECH 175 - Electricity &amp; Electronics Fundamentals</td>
</tr>
<tr>
<td></td>
<td>1 TECH 175A - Electricity &amp; Electronics Fund Lab</td>
</tr>
<tr>
<td><strong>17</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore (Fall)</th>
<th>Sophomore (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 CSCI 240 - Computer Programming in C++</td>
<td>3 TECH 271 - Electrical Fund &amp; Circuit Analysis II</td>
</tr>
<tr>
<td>3 TECH 270 - Electrical Fund &amp; Circuit Analysis I</td>
<td>1 TECH 271A - Electrical Fund &amp; Circuit Analysis Lab II</td>
</tr>
<tr>
<td>1 TECH 270A - Electrical Fund &amp; Circuit Analysis Lab I</td>
<td>3 TECH 276 - Electronics I</td>
</tr>
<tr>
<td>3 TECH 277 - Digital Logic Design</td>
<td>1 TECH 276A - Electronics I Lab</td>
</tr>
<tr>
<td>1 TECH 277A - Digital Logic Design Lab</td>
<td>3 TECH 265 - Basic Manufacturing Processes</td>
</tr>
<tr>
<td>3 TECH 211 - Computer-Aided Design</td>
<td>3 General Education Requirement 2</td>
</tr>
<tr>
<td><strong>15</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior (Fall)</th>
<th>Junior (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 TECH 376 - Electronics II</td>
<td>3 TECH 377 - Microprocessors and Interfacing</td>
</tr>
<tr>
<td>1 TECH 376A - Electronics II Lab</td>
<td>1 TECH 377A - Microprocessors and Interfacing Lab</td>
</tr>
<tr>
<td>3 TECH 375 - Control Systems</td>
<td>3 TECH 378 - Communication System Design I</td>
</tr>
<tr>
<td>3 EET Elective 1</td>
<td>1 TECH 378A - Communications System Design Lab</td>
</tr>
<tr>
<td>3 STAT 208 - Basic Stats or STAT 301 - Elementary Stats</td>
<td>3 TECH 379 - Electric Machines and Transformers</td>
</tr>
<tr>
<td>3 EET Elective 2</td>
<td>1 TECH 379A - Electric Machines and Transformers Lab</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior (Fall)</th>
<th>Senior (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TECH 477 - Egr Tech Senior Design Project I</td>
<td>3 TECH 478 - Egr Tech Senior Design Project II</td>
</tr>
<tr>
<td>3 General Education Requirement 3</td>
<td>3 General Education Requirement 5</td>
</tr>
<tr>
<td>3 General Education Requirement 4</td>
<td>3 General Education Requirement 6</td>
</tr>
<tr>
<td>3 EET Elective 3</td>
<td>3 EET Elective 6</td>
</tr>
<tr>
<td>3 EET Elective 4</td>
<td>3 EET electives 7</td>
</tr>
<tr>
<td>3 EET Elective 5</td>
<td></td>
</tr>
<tr>
<td><strong>16</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Electives (21 Total Hours Required)

**Electives - Choose 6 hours from below**
- TECH 295 - Mfg Comp Apps (3) or CSCI 215 - Visual Basic (4)
- TECH 409 - Internship (3)
- TECH 419 - Energy Auditing (3)
- TECH 425 - Programmable Electronic Controllers (3)
- TECH 445 - Ind Energy Utilization & Environmental Impacts (3)

**Electives - Choose 6 hours from below**
- TECH 391 - Industrial Quality Control (3)
- TECH 393 - Structure and Properties of Materials (3)
- TECH 415 - Applied Industrial Experimental Analysis (3)
- TECH 417 - Design for Energy Efficiency & Green Materials (3)
- TECH 420 - Computer-Integrated Manufacturing (3)
- TECH 443 - Engineering Economy (3)

**Electives - Choose 9 hours from below**
- TECH 426 - Electronic Sys Apps for Alternative Energy (3)
- TECH 430 - Microcontrollers Interfacing & Applications (3)
- TECH 470 - Fiber Optics Communications (3)
- TECH 471 - Digital and Data Communication (3)
- TECH 472 - Integrated Circuit Devices (3)
- TECH 473 - Advanced Digital Design (3)
- TECH 475 - Computer Simulation in Electronics (3)
- TECH 476 - Industrial Control Electronics (3)
- TECH 479 - Special Topics in Engineering Technology (3)
2014/2015 NIU Undergraduate Bulletin
Electrical Engineering Technology
Credits Required for Graduation 126

Note: Semester offering and prerequisites may change, the current bulletin and schedule should be consulted
Legend - p - prerequisite  c-corequisite  f - fall semester  s - spring semester

### Required Technology Courses

- **Tech 175** p: Math 155, Phys 210
  ELECTRICITY AND ELECT FUND - (f,s)

- **Tech 175a**
  ELECTRICITY AND ELECT FUND lab - (f,s)

- **Tech 211**
  TECH 211

- **Tech 265** p: Math 155
  BASIC MANUF PROCESSES - (f,s)

- **Tech 270** p: Tech 270A, Phys 211 or Tech 211
  ELECTRICAL FUND AND CIRCUIT ANAL I - (f)

- **Tech 270A** c: Tech 270
  ELECTRICAL FUND AND CIRCUIT ANAL I LAB - (f)

- **Tech 271**
  TECH 271

- **Tech 271A** c: Tech 271
  ELECT FUND AND CIR ANAL II LAB - (f)

- **Tech 276**
  ELECTRONICS I - (s)

- **Tech 276A** c: Tech 276
  ELECTRONICS I LAB - (s)

- **Tech 277**
  DIGITAL LOGIC DESIGN - (f)

- **Tech 277A**
  DIGITAL LOGIC DESIGN LAB - (f)

- **Tech 278**
  CONTROL SYSTEMS - (f)

- **Tech 279**
  CONTROL SYSTEMS LAB - (f)

- **Tech 280**
  MICROPROCESSORS AND INTERFACING - (f)

- **Tech 280A**
  MICROPROCESSORS AND INTERFACING LAB - (f)

- **Tech 286**
  COMPUTER PROGRAMMING IN C - (f,s)

### Electrical Engineering Technology Electives - Electives may change each semester

#### Choose 6 semester hours

- **Tech 295** p: Math 155, Tech 265
  Manufacturing Computer Applications - (f,s)

  or

- **Csci 215** p: Math 110
  Visual Basic

- **Tech 409** p: Junior Standing
  Internship

- **Tech 419** p: Math 155
  Energy Auditing

- **Tech 425** p: Tech 275 or T265 or T295 or CSCI 260
  Programmable Electronic Controllers - (f)

- **Tech 445** p: Math 155, Chem 110 or 210
  Ind Energy Utilization & Environmental Impact

#### Choose 6 semester hours

- **Tech 391**
  Industrial Quality Control - (f,s)

- **Tech 392**
  Structure and Properties of Matls - (f)

- **Tech 415**
  Applied Industrial Experimental Analysis - (f)

- **Tech 417**
  Design for Energy Efficiency & Green Materials

- **Tech 420**
  T175/1275 or T211 or T265
  Computer-Integrated Manufacturing - (f)

- **Tech 443**
  Engineering Economy - (f,s)

#### Choose 9 semester hours

- **Tech 426**
  Electronic Systems Apps for Alternative Energy

- **Tech 430** p: Tech 377
  Microcontrollers Interfacing & Applications

- **Tech 470** p: Tech 378
  Fiber Optics Communications

- **Tech 471** p: Tech 378
  Digital and Data Communication

- **Tech 472** p: Tech 277, Tech 376, Tech 275, Tech 271
  ENG TECH SEN DESIGN PROJ I - (f,s)

- **Tech 478** p: Tech 477
  ENG TECH SEN DESIGN PROJ I - (f,s)

- **Tech 479**
  see instructor
  Special Topics in Engineering Technology

### General Education Courses - See Tech Department website or Undergraduate Catalog

#### Humanities and the arts - 3 courses
  one course must be from VPA

  -
  -
  -

  - (VPA)

#### Interdisciplinary Studies - 1 course

  - (3)

#### Social Science - 2 courses

  - (3)
  - (3)

10/1/2019