# Career Programs in Technology and Engineering Education

<table>
<thead>
<tr>
<th>Career Cluster</th>
<th>CIP Code</th>
<th>Program Title</th>
<th>Group 1: Foundational Courses</th>
<th>Group 2: Skill Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture and Construction</td>
<td>15.1301</td>
<td>Drafting and Design Technology/Technician, General</td>
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<tr>
<td>Architecture and Construction</td>
<td>46.0000</td>
<td>Construction Trades, General</td>
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<td>Architecture and Construction</td>
<td>46.0301</td>
<td>Electrical and Power Transmission Installation/Installer, General</td>
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<td>Architecture and Construction</td>
<td>46.0302</td>
<td>Electrician</td>
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<tr>
<td>Architecture and Construction</td>
<td>46.0401</td>
<td>Building/Property Maintenance</td>
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<td>Architecture and Construction</td>
<td>46.0503</td>
<td>Plumbing Technology/Plumber</td>
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<td>Architecture and Construction</td>
<td>47.0201</td>
<td>Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician</td>
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<tr>
<td>Architecture and Construction</td>
<td>47.0302</td>
<td>Heavy Equipment Technology/Technician</td>
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**Foundational Courses**

- Production Technology
- Communication Technology
- Introduction to Technology and Engineering (Industrial)
- Foundations of Technology (EbD)
- Beginning Drafting
- Transportation Technology
- Beginning Construction

**Skill Courses**

- Architectural Drafting I
- Construction Trades I
- Electrical Trades I
- Building Maintenance I
- Mechanical Drafting I
- Carpentry I
- Drafting
- Drywall Installation I
- Civil Engineering & Architecture (PLTW)
- Drywall Installation II
- Masonry I
- Masonry II
- Wall Finishing I
- Wall Finishing II

**Group 1: Foundational Courses (Minimum Selection: 1)**

- Production Technology
- Communication Technology
- Foundations of Technology (EbD)
- Energy Utilization Technology
- Transportation Technology

**Group 2: Skill Courses (Minimum Selection 1)**
### CAREER PROGRAMS IN TECHNOLOGY AND ENGINEERING EDUCATION

<table>
<thead>
<tr>
<th>ADDITIONAL PROGRAM COURSES</th>
<th>Cooperative Education</th>
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</table>

A quality program delivers all required elements* and a variety of additional elements. CTE program elements include: a sequence of courses* each educational entity offering approved courses provides assurance that the course content includes at a minimum the state course description*, (State course descriptions are available at [http://www.isbe.net/career/html/cte_industrial_ed.htm](http://www.isbe.net/career/html/cte_industrial_ed.htm)), meets the state’s minimum requirements for course offerings by program contain a minimum of two (2) credits of instruction*, curriculum aligned to state recognized learning standards and industry standards, career pathway guidance, resources to support program/course delivery (licensed and qualified staff, appropriate facilities, adequate equipment, instructional materials, work-based learning experiences, special populations support services, active affiliated SkillsUSA and/or TSA chapter), articulation/dual credit agreements, documentation of state agency certification or licensing requirements for occupations regulated by law or licensure, and content which prepare students for reflective of current labor and opportunity for cooperative education as a structured capstone course. Foundational courses are suggested to be taught at the 9th and 10th grade levels. Skill level courses are suggested to be taught at the 10th – 12th grade levels.

Updated 12/13