



NH Department of Education

# Bureau of Career Development

**Title:** Engineering Technology, General.

**CIP#:** 15.0000

**Definition:** A program that generally prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects. Includes instruction in various engineering support functions for research, production, and operations, and applications to specific engineering specialties.

**Potential pathway focuses beyond Engineering Technology:**

Chemical Engineer  
Electrical Engineer  
Mechanical Engineer  
Civil Engineer

**Careers**

Students in Engineering learn and practice skills that prepare them for diverse post-high school education and training opportunities, from apprenticeships and two-year college programs to four-year college and graduate programs. CTE classes in this cluster will introduce you to a variety of interesting careers including:

- Marine engineer
- Industrial engineer
- Mechanical engineer
- Computer engineer
- Chemical engineer
- Biomedical engineer
- Petroleum engineer
- Civil engineer
- Environmental engineer
- Electrical engineer
- Nuclear engineer
- Aeronautical engineer
- Materials engineer
- Software engineer
- Manufacturing
- Biomedical
- Aerospace
- Tooling
- Landscaping
- Construction

### **Common Competencies**

Upon completion of their selected pathway program, all NH CTE students will:

- Use correct terminology, vocabulary and appropriate language to communicate effectively in the workplace
- Select and safely use appropriate tools, supplies, and equipment for a specific task or set of tasks.
- Employ effective time and project management strategies to complete work efficiently and proficiently.
- Apply math concepts, including measurement, operations, and higher mathematics to relevant applications and specific tasks.
- Demonstrate awareness strategies to safely work in a variety of workspaces and locations.

### **Pathway Competencies:**

Upon completion of the general Engineering pathway, students will achieve competency in four areas.

Each student will:

- **Workplace Readiness Skills**
  - Students will effectively apply good work practices and communication skills necessary to a traditional engineering work environment.
- **Career Knowledge and Planning**
  - Students will demonstrate an understanding of different engineering disciplines, their applications, and the professional/educational requirements necessary for their pursuit.
- **Critical Thinking and Analysis**
  - Students will apply observational and analytical skills to the engineering design process.
- **Engineering Design & Solidmodeling for Technological Solutions**
  - Students will understand the application of design for industry with understanding of how it is used in manufacturing solutions.
  - Students will demonstrate the practical application of design elements, principles, and technology in the development of engineered solutions.