

# NH Department of Education

# Bureau of Career Development

**Title:** Drafting and Design Technology/Technician, General.

CIP#: 151301

A program that prepares individuals to generally apply technical skills to create working drawings and computer simulations for a variety of applications. Includes instruction in specification interpretation, dimensioning techniques, drafting calculations, material estimation, technical communications, computer applications, and interpersonal communications.

#### Potential pathway focuses beyond general drafting:

Draftsman Architect Engineer

#### **Careers**

Students in Drafting learn and practice skills that prepare them for diverse posthigh 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:

#### Drafter

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- Architectural
- Mechanical
- Electrical
- Construction
- Electro/Mechanical

#### Designer

- Interior Design
- Industrial Design
- Packaging Designer
- Furniture Design
- Product Design
- Business Owner/Entrepreneur
- Landscape Designer

#### **Architecture**

#### Architect

- Architectural Engineering Technician
- Estimator

- Home/Building Inspector
- Landscape Architect

## **Engineering**

#### Engineer

- Mechanical
- Manufacturing
- Chemical
- Electrical
- Civil, etc.
- Biomedical
- Aerospace
- Tooling
- Quality/Inspection
- Applications
- Field
- Test
- Landscaping
- Mechanical Engineering Technician
- Manufacturing Engineering Technician

#### **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 drafting pathway, students will achieve competency in five areas.

#### Each student will:

#### • Career & Personal Development

o Explore careers within the cluster and develop individual career documents.

#### Drawings

 Demonstrate and apply the principles & practices specific to creating and setting up proper technical drawings.

#### CADD

 Demonstrate and apply the tools and techniques associated with the use of computer aided design software to create technical drawings & prototypes.

### Design Process

 Demonstrate and apply the tools and techniques associated with creative thinking & problem solving. The understanding & ability to develop a new Idea or product through the use of the design process.

#### • Prototyping and Presentation

 Demonstrate and apply the tools and techniques used to create Prototypes, working models & presentations, through the use of computer software, in person presentation, digital presentations, and new technologies including but not limited to 3D printing, laser cutting, solid modeling, VR etc.