# Introduction to Industrial Technology Course No. 38001 Credit: 0.5

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| --- | --- | --- | --- |
| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes:Aviation Maintenance (47.0608) - Avionics & Airframe Strand; Aviation Production (15.0000) - Production & Maintenance Strand; **Construction & Design (46.0000) - Construction & Design Strand**; Manufacturing (48.0000) - Design & Production Strand; Mobile Equipment Maintenance (47.9999) - Automotive Collision & Automotive Technology Strand One & Two

Course Description: An **introductory level** course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing, and Transportation career clusters.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: basic safety

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Identify causes of accidents and the impact of accident costs. |  |
| 1.2 | Follow safe behavior procedures on and around ladders, scaffolds and stairs. |  |
| 1.3 | Follow safe behavior procedures around electrical hazards. |  |
| 1.4 | Demonstrate the use, care and inspection of appropriate personal protective equipment (PPE). |  |
| 1.5 | Explain the importance of hazard communications (HazCom) and material safety data sheets (MSDSs). |  |
| 1.6 | Respond to hazardous-materials and hazardous-waste emergency situations accordance with regulatory requirements. |  |
| 1.7 | Follow safety procedures required for lifting heavy objects. |  |
| 1.8 | Demonstrate a working knowledge of safety education, environment, and enforcement for life and work. |   |
| 1.9 | Apply safe practices while using tools and equipment. |  |
| 1.10 | Apply safe practices for housekeeping, dress, fire, chemicals & personal protection while working in a shop. |  |
| 1.11 | Describe fire prevention and firefighting techniques. |  |
| 1.12 | Explain the purpose of OSHA and how it promotes safety on the job. |  |

## Benchmark 2: Industrial math

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Add, subtract, multiply, and divide whole numbers, fractions, decimals and percentages. |  |
| 2.2 | Use a standard ruler, a metric ruler, and a measuring tape to measure. |  |
| 2.3 | Demonstrate conversion skills for decimals and fractions. |  |
| 2.4 | Recognize and perform calculations using metric units of length, weight, volume and temperature. |  |

## Benchmark 3: Hand tools

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Recognize and identify some of the basic hand tools and their proper uses in industrial trades. |  |
| 3.2 | Demonstrate the safe use of common hand tools. |  |

## Benchmark 4: power tools

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Recognize and identify some of the basic power tools and their proper uses in the industrial trades. |  |
| 4.2 | Demonstrate the safe use of common power tools. |  |
| 4.3 | Perform preventive maintenance on basic power tools used in the industrial trades. |  |

## Benchmark 5: blueprint reading

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Perform the drafting principles needed to draw the basic geometric shapes. |  |
| 5.2 | Develop a pictorial sketch of an object. |  |
| 5.3 | Develop a multi-view drawing. |  |
| 5.4 | Identify basic symbols used in blueprints. |  |
| 5.5 | Identify various types of blueprint views used in Architecture and Construction, Engineering, Manufacturing, and Transportation. |  |

## Benchmark 6: Communication skills

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Interpret information and follow instructions presented in both verbal and written form. |  |
| 6.2 | Communicate effectively in on-the-job situations using verbal and written skills in various delivery modes (face-to-face, |  |
| 6.3 | Create and complete various written documents used in industrial trades. |  |
| 6.4 | Demonstrate knowledge and use of computer systems and word processing software in effective communication. |  |

## Benchmark 7: employability skills

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Create and utilize employment documents including a resume and portfolio. |  |
| 7.2 | Demonstrate job seeking and interview skills. |  |
| 7.3 | Understand and respond to performance reviews. |  |

## Benchmark 8: 21st century/foundation skills

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Demonstrate critical thinking skills and the ability to solve problems using those skills. |  |
| 8.2 | Define effective relationship skills. |  |
| 8.3 | Demonstrate a working knowledge of workplace issues such as sexual harassment, stress, and substance abuse. |  |
| 8.4 | Demonstrate the ability to achieve common goals through team work. |  |

## Benchmark 9: materials handling

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | Verify that health, safety, environmental, and government regulations are met. |  |
| 9.2 | Recognize hazards and follow safety procedures required for materials handling. |  |
| 9.3 | Demonstrate ability to load and unload materials properly and safely. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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