

This deliverable contains East Central Community College's modified Manufacturing Skills Basic program replicated from the Mississippi Corridor Consortium TAACCCT 1 Grant. This deliverable was developed through the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant Program Round 4 Grant *Winston County Manufacturing Recovery Project* TC-26437-14-60-A-28.

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# WINSTON COUNTY MANUFACTURING RECOVERY PROJECT



**Strategy 1:** Build programs that meet industry needs.

**Action 1.3:** Replicate at the Louisville center the Mississippi Corridor Consortium Manufacturing Skills – Basic training program.

**Deliverable #5:** Manufacturing Skills - Basic Curriculum

**Strategy 4:** Strengthen online and technology-enabled learning.

**Action 4.2:** ECCC will utilize online and technology-enabled training systems to offer the replicated Manufacturing Skills – Basic program (Action 1.3) at its Louisville Center in Winston County.

**Deliverable #19:** Manufacturing Skills - Basic Curriculum

## Modified Manufacturing Skills – Basic Curriculum

The Manufacturing Skills – Basic curriculum replicated from the Mississippi Corridor Consortium TAACCCT 1 Grant was modified based on input by the Winston County Manufacturing Sector Leadership Team. The curriculum was divided into two programs, an introductory Manufacturing Safety program and ECCC's Manufacturing Skills – Basic program.

To access either program, students must first take the WorkKeys Career Readiness Assessment. Students scoring a silver level or higher are admitted to the training programs. Those who do not are referred to ECCC's Manufacturing Remediation Program.

### Manufacturing Safety Program

The Manufacturing Safety program is a 25-hour training curriculum that consists of the safety and other training modules from the Corridor Consortium's program:

- OSHA 10-hour training and certification
- CPR/AED training and certification
- Introduction to Lean/Quality Control:
  - Lean Manufacturing
    - History of Lean
    - Introduction to Lean
    - Workplace Organization
    - 5s
  - Quality Systems Overview

## ECCC's Manufacturing Skills – Basic Program

ECCC's Manufacturing Skills – Basic program is a 69-hour training curriculum that consists of the remaining training modules from the Corridor Consortium program:

- High-Performance Manufacturing:
  - Lean
  - 5S
  - SPC
  - SMED
  - Identifying Customer's and their needs
  - Quality Control
  - Understanding ISO
  - Value Stream Mapping
- Computer Literacy
- Blue Print Reading
- Precision Measurement
- Interviewing Skills

ECCC's Manufacturing Skills – Basic program utilizes Amatrol training technology and online training modules.

The learning objectives and time on task established by the Corridor Consortium follows:

### **Manufacturing Skills Basic Certification Course Objectives**

#### **OSHA Safety (15 hours)**

- Introduction to OSHA
- Electrical
- Exit routes, Emergency Action plans, Fire prevention plan, and fire protection
- Flammable and combustible Liquids
- Personal protection equipment
- Hazard communication
- Machine guarding
- Ergonomics
- Walking-Working surfaces
- Lockout/Tag out procedures
- Safety and health programs

#### **CPR/AED Training (4 hours)**

- Recognize and respond to an Emergency
- Learn how to care for a person who is choking
- Correctly check an unconscious person for life-threatening and nonlife- threatening conditions
- Recognize and care for a person who is not breathing
- Learn how to care for a heart attack victim and how to give CPR
- Demonstrate how to use and AED and identify precautions when using and AED

### **Computer Literacy – 6 Hours**

- Students will know how to run a program from the desktop and the Start Menu
- Students will demonstrate how to operate a browser and will enter a website by entering the URL.
- Students will demonstrate how to save a website URL and how to use a search engine.
- Students will establish and use an email account and will send, receive, save and open an attachment using an email account.

### **Blue Print Reading – 15 Hours**

- Students will be able to read an orthographic drawing
- Students will be able to read various types of drawings used in manufacturing such as isometric, auxiliary and sectional views.
- Students will be able to determine dimensions from various mechanical drawings.
- Students will demonstrate the ability to recognize symbols used in various types of drawings.

### **Precision Measurement – 18 Hours**

- Students will recognize precision measuring instruments.
- Students will demonstrate the proper use and care of precision measuring instruments.
- Students will demonstrate the ability to measure accurately with English measurement scales and metric measurement scales.
- Students will be able to apply precision measurements devices in simulated job talks.

### **High-Performance Manufacturing – 32 Hours**

- Demonstrate teamwork and problem-solving skills.
- Describe high-performance manufacturing procedures to include:
  - Lean manufacturing
  - 5S
  - SMED
  - Identifying customers and their needs
  - Quality control
  - Statistical process control
  - Understanding of ISO
  - Value Stream Mapping
- Research and present a manufacturing topic.

### **Interviewing Skills – 4 Hours**

- Basics of resume writing
- Job interviewing techniques