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## **Manufacturing**

## General Assessment Information

### Blueprint Contents

General Assessment Information  
Written Assessment Information

Specific Competencies Covered in the Test  
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**Test Type:** This assessment measures general knowledge of the Manufacturing industry, and the common processes, terminology, and careers in the industry. The assessment is customized to correspond to the content of the Ready for Industry® curriculum from eDynamic Learning. This assessment offers a written (multiple-choice) assessment and can be used at the secondary level, post-secondary level, workforce development centers and businesses. This assessment is delivered online.

**Revision Team:** The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the state of Tennessee, Alabama, Georgia, and California.



15.0699) Industrial Production Technologies/Technicians, Other.



Career Cluster - Manufacturing



51-9199.00 - Production Workers, All Other



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

## Written Assessment

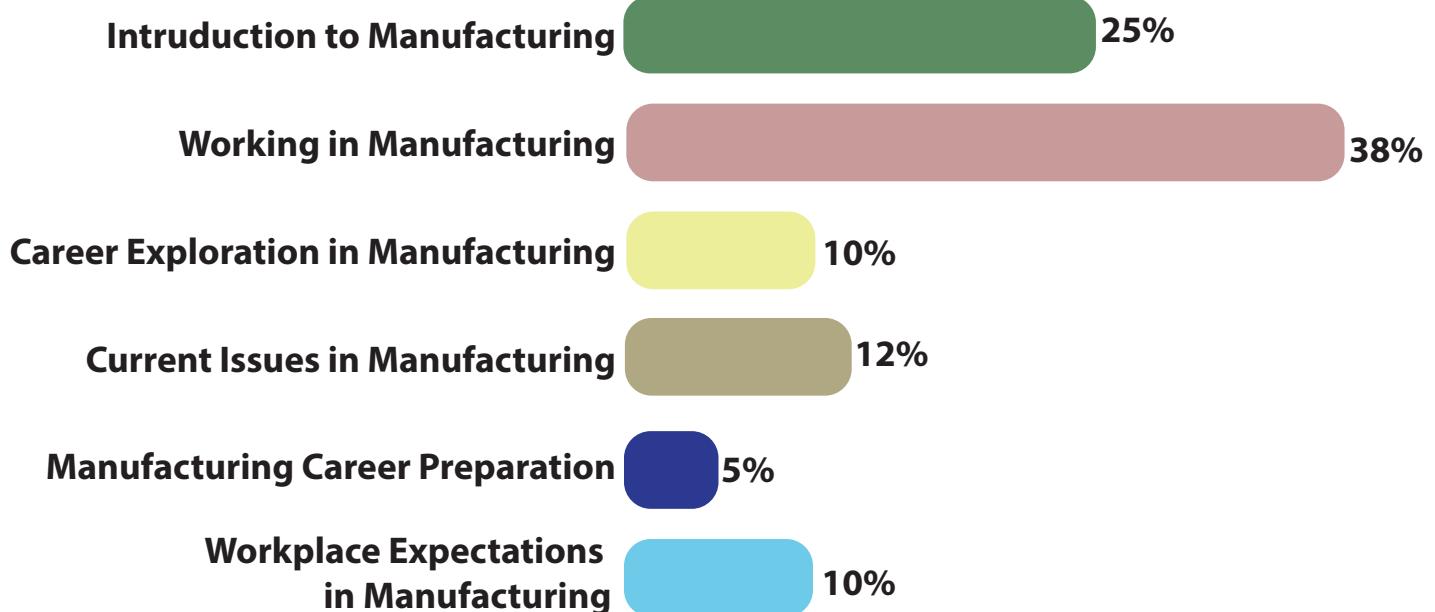
This written assessment consists of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 1 hour

**Number of Questions:** 60

**Number of Sessions:** This assessment may be administered in three sessions.

### Areas Covered



## Specific Standards and Competencies Included in this Assessment

### Introduction to Manufacturing

- Describe the importance of manufacturing in society
- Identify common manufacturing industries/types
- Describe manufacturing processes and terminology

### Working in Manufacturing

- Describe common manufacturing processes including fabrication vs. assembly
- Discuss robotics in manufacturing and modern assembly lines
- Discuss food manufacturing and working with perishable materials
- Describe warehousing, production planning, and purchasing, and lead times
- Describe OSHA regulations and hazard communications
- Identify common PPE and manufacturing safety
- Discuss Lean Manufacturing, Six Sigma, and Total Quality Management (TQM)

### Career Exploration in Manufacturing

- Describe the roles of maintenance technicians, welders, and machinists
- Describe industrial mechanics, electricians, and robot operator jobs
- Describe quality assurance and safety job responsibilities

### Current Issues in Manufacturing

- Describe supply chain and outsourcing challenges
- Discuss cost increases and disruption in transportation
- Describe green and smart manufacturing strategies
- Discuss issues with offshoring and onshoring
- Identify advancements in manufacturing

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## Specific Standards and Competencies (continued)

### Manufacturing Career Preparation

- Describe top manufacturing careers
- Describe education pathways for manufacturing careers
- Discuss interviewing skills

### Workplace Expectations in Manufacturing

- Describe employer expectations
- Discuss the importance of working as a team in manufacturing
- Describe time management in manufacturing
- Discuss conflict resolution
- Describe personal development, lifelong learning, and self-management

## Sample Questions

**Which of the following is a manufactured item?**

- A. fresh bananas
- B. farm-fresh potatoes
- C. organic wheat
- D. bagged salads

**Which type of production refers to the creation of a product from raw materials without interruption?**

- A. assembly line
- B. combination
- C. continuous
- D. specific interval

**A consolidation center is used to combine small orders and shipments into larger shipments to**

- A. fill trucks to capacity
- B. incorporate more robots
- C. increase shipping time
- D. lower material costs

**The team member responsible for fixing machines as quickly as possible is the**

- A. maintenance supervisor
- B. production manager
- C. maintenance technician
- D. production director

**Who designs, builds, and maintains the machines required for production?**

- A. manufacturing technician
- B. press operator
- C. mechanical engineer
- D. millwright

