

Introduction to Industrial Maintenance

Course Overview

The industrial maintenance industry is a growing industry seeking high-skilled workers. The *Workforce Access Industrial Maintenance* online course is aimed at helping learners develop an understanding of the industry-specific competencies needed for careers in industrial maintenance, and to build the academic and workplace skills needed for success in postsecondary or career training. Students are introduced to different jobs in the three sectors of the industrial maintenance industry:

- Machinery maintenance workers
- Industrial machinery mechanics
- General maintenance and repair workers

Learning Outcomes

While taking this course, students will learn to:

- Discuss the field of industrial maintenance and describe its role in manufacturing
- Explain the skills and preparation needed for jobs in industrial maintenance
- Describe specific procedures for ensuring safety in the workplace
- Describe types of maintenance strategies and their purpose
- Identify and describe troubleshooting methods
- Describe common measurement systems and standards
- Recognize common components of blueprints and other technical drawings
- Explain the purpose of mechanical drive systems used in manufacturing
- Identify the most common machine tools and their uses
- Define welding and explain its role in industrial maintenance
- Describe how electric devices work and identify common electrical tests and maintenance tasks
- Identify the components of typical fluid power systems
- Describe how industrial process systems work, including inputs, outputs, and safety considerations
- Discuss the role of robotics and programmable logic controllers in manufacturing
- Develop reading for information, locating information, and applied mathematics skills contextualized to the field of industrial maintenance

Modes of Course Delivery

The *Introduction to Industrial Maintenance* course can be used as a core curriculum or as a supplement to enhance regular instruction. Because of this flexibility, the course can be delivered in a self-paced or a customized mode. Custom mode allows instructors to assign individual lessons and assessments and set the pace for the course.

Pacing and Course Duration

Sample 10-week and 12-week pacing guides are provided in the Teacher Planning Guide. The pacing guides can be used as is or adapted to account for shorter or longer terms to suit individual needs. Each of the lessons requires approximately 40-50 minutes of study. Additional academic skill support lessons, discussion prompts, and writing activities can be used to enhance students' learning.

Assessments and Reporting

Assessments for the course include interactive formative assessments within each lesson, as well as scored pretests and posttests for each lesson. Teachers and students can generate reports to show progress and mastery of industry and academic knowledge of skills.

How to Access Workforce Access *Introduction to Industrial Maintenance*

When you order *Introduction to Industrial Maintenance*, you will access everything you need in the ConnectED Learning Management System, including the core lessons, academic skill support lessons, teacher planning guide, lesson plans, and other useful resources. For more information on this or other *Workforce Access* courses, please go to www.workforceaccess.com.

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