

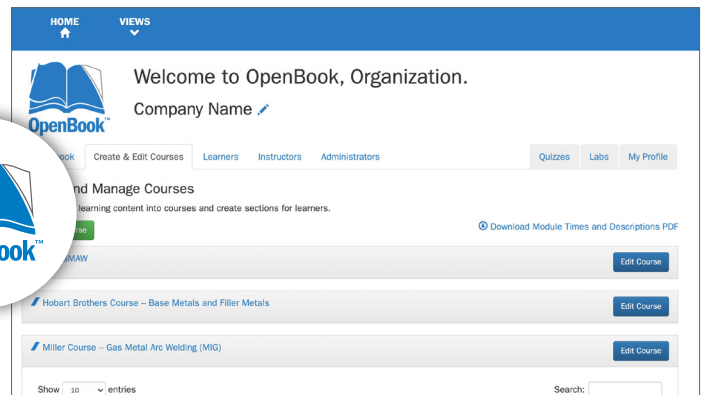
Miller OpenBook™

FREE, interactive online training resources, educational materials and tracking tools

FREE TEACHING MATERIAL

Ideal for high school and post-secondary welding programs

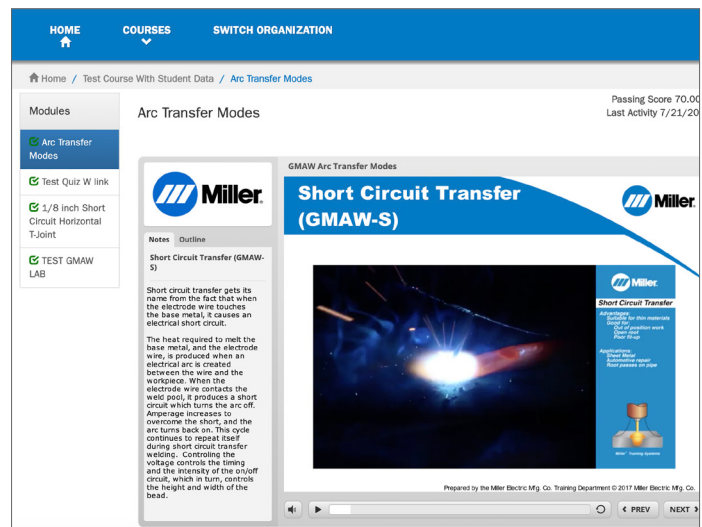
(Aligns with Miller Books available for FREE on iTunes)



Customize Your Classroom

Implement materials that fit your curriculum and learning objectives.

- OpenBook includes:
 - Over 70 e-Learning modules
 - Weld lab activities compatible with Miller AugmentedArc
 - Course, Quiz and Lab Builders
 - Reports and tracking of student progress
 - Customizable Certificates of Completion
 - Miller & Hobart Pre-Defined Courses with Certificates of Completion
 - Track individual student progress
 - All materials align with AWS SENSE Standards



Motivate & Engage Students

- Interactive, stimulating learning includes videos and activities
- Quick, digestible segments
- Mobile friendly
 - Easy to access homework from anywhere
 - Students can check grades and status
- Certificate of achievement awarded from Miller and Hobart for pre-curated courses.

Certificate of Completion



Presented to:

STUDENT NAME

For Successfully Completing:

Miller - Shielded Metal Arc Welding (Stick)

This course discusses the following topics:

- Process Overview
- Current and Polarity
- Arc Control, Dig & Hot Start
- Accessories
- Electrode Classification
- Electrode Selection
- Electrode Characteristics
- Welding Variables
- Welding Techniques
- Welding Defects
- Joint Types
- Troubleshooting SMAW Systems

For details, visit OpenBook.MillerWelds.com



E-learning Module Topics

Basic Electricity

- Basic Electricity
- Secondary Power
- Terms for Welding
- Types of Welding Power Sources
- Resistance: Secondary Cables

Introduction to Welding

- Miller Safety Quick Guide
- Material Joining Processes
- Different Welding Processes
- Electrical Terms
- Electrical Arc Welding Processes
- Weld Types, Positions and Symbols
- Fillet Welding Symbols
- Groove Welding Symbols
- Selecting Filler Metal or Electrodes
- Preparation for Arc Welding
- Understanding Blueprints
- Blueprint Reading - Basic Lines and Views

Introduction to Metals

- Introduction
- Mechanical Properties
- Testing Hardness Types
- Physical Properties
- Metal Classifications
- Identifying Metals

FCAW

- Equipment
- Wire Feeders
- The Welding Gun
- Welding Variables
- Wires
- Shielding Gases
- Common Weld Defects

Cutting Processes

- Introduction
- Plasma Arc Cutting Equipment
- Torch Consumables
- Cutting Sequence

SMAW

- Process Overview
- Current and Polarity
- Arc Control, Dig & Hot Start
- Accessories
- Electrode Classification
- Electrode Selection
- Electrode Characterization
- Welding Variables
- Welding Techniques
- Welding Defects
- Joint Types

GTAW

- Advantages and Limitations
- Current
- Arc Starting Methods
- GTAW-P Welding
- Equipment and Torch Parts
- Automated
- Electrodes
- Shielding Gases
- Filler Metals
- Power Supply and Welding Prep
- Joint Types

GMAW

- History and Overview
- Primary and Secondary Power
- Equipment
- Wire Feeders
- The Welding Gun
- Welding Variables
- Wires
- Arc Transfer Modes
- Shielding Gases
- Welding Joint Types
- Spot, Plug and Slot Welding
- Welding Techniques
- Common Weld Defects

Aluminum

- Introduction to Aluminum Filler Metals
- Selecting Aluminum Filler Metals
- Aluminum – Weld Preparation and Treatment
- Aluminum – GTAW
- Aluminum – GMAW
- Aluminum – Troubleshooting

Troubleshooting Welding Processes

- Troubleshooting Control Cables and Shielding Gas
- Troubleshooting GMAW Systems
- Troubleshooting Resistance: The Unrecognized Welding Variable
- Troubleshooting Shielding Gases & GTAW Systems
- Troubleshooting SMAW Systems
- Troubleshooting Work Clamps and Weld Cables