



MAESTRO
CONSULTANTS

MODERN WELDING TECHNOLOGY: WELDING, FABRICATION & INSPECTION (AWS, ASME & API)

COURSE OUTLINE 2025

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TRAINING TITLE

MODERN WELDING TECHNOLOGY: WELDING, FABRICATION & INSPECTION
(AWS, ASME & API)

VENUE

Dubai, UAE

DURATION

5 Days

DATES

06 - 10 January 2025

PRICE

\$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch.

TRAINING INTRODUCTION

Welding Technology plays a major role in all maintenance and fabrication activities in the industry. Production equipment, a highly sophisticated welding technique and qualified personnel allow processing or production of steel products for different applications within short periods.

This training provides a much needed source of authoritative information on the complex subject of welding. It provides a comprehensive run-down of the complex science of welding- processes, selection of power sources, weld metallurgy, weldability of metals, testing and inspection techniques.

This training will cover welding processes, welding consumables, design of welded joints, applied welding metallurgy and heat treating, welding quality control, non-destructive testing and major International Welding Codes and Standards such as AWS and API.

TRAINING OBJECTIVES

- This training course provides the complex science of welding- processes, selection of power sources, weld metallurgy, weld ability of metals, testing and inspection techniques.
- Also covers welding processes, welding consumables, design of welded joints, applied welding metallurgy and heat treating, welding quality control, non-destructive testing and major International Welding Codes and Standards such as AWS, API & ASME.
- Appreciation of Weld Design, Development, Planning, Production

- Understanding the key welding concepts to design and produce quality welds, reliably and economically.

TRAINING AUDIENCE

- Engineers from welding and various related departments such as Design, Planning, Production, and Inspection Welders, Technicians, Inspectors, Supervisors, Engineers and Managers.
- This is also preparatory course for AWS/CWI, CSWIP Examinations.
- Selection of Metals and Metal Properties.
- ASME Section IX and V
- Weld Discontinuities
- Visual Inspection
- NDT and DT Inspection & Inspection Procedures.

TRAINING OUTLINE

- Overview of codes of construction
- Materials of construction
- Overview of fusion welding process
- Basic welding Metallurgy.
- Welding Consumables, usage testing
- Welding of plain carbon steels
- Welding of low alloy steels
- Welding of Stainless steels
- Welding of dissimilar materials
- Welding of Procedure Qualifications
- Welding of Performance Qualifications
- Welding defects, process & detection
- Welding processes
- Concepts of SMAW, GTAW, GMAW, FCAW, SAW, RSW etc.,
- Safety precautions in welding
- Economics of welding
- Welding consumables
- Weld joint design and basic symbols , Metal Joining and Cutting Process
- Weld faults- causes and remedies
- Destructive and Non-destructive testing

- Welding qualification WPS, PQR, WPQ.
- QA systems for coded fabrication, typical QA plan
- Case studies, discussions.

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations.

The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.