

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



**WE109  
Welding  
Engineering**

**COURSE TITLE**

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

**COURSE DATE/VENUE**

08 - 12 March, 2021

London, UK

**COURSE REFERENCE**

WE109

**COURSE DURATION**

05 Days

**DISCIPLINE**

Welding Engineering



**COURSE OBJECTIVE**

- 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.

**COURSE 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.

### **COURSE CONTENT**

- 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

### **COURSE CERTIFICATE**

**TRAINIT ACADEMY** will award an internationally recognized certificate(s) for each delegate on completion of training.

### **COURSE FEES**

\$6,150 per Delegate. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### **COURSE METHODOLOGY**

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions