



**MAESTRO**  
CONSULTANTS

# WELDING TECHNOLOGY



## COURSE OUTLINE 2020

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## **TRAINING TITLE**

WELDING TECHNOLOGY

## **VENUE**

Dubai, UAE

## **DURATION**

5 Days

## **DATES**

12 - 16 January 2020

## **PRICE**

US\$4,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet daily.

## **TRAINING INTRODUCTION**

Distillation is still the most widely used means of separating chemical species in the petroleum and chemical industries and is the first unit operation in an oil refinery. This course covers the key areas of assessing the operation of the internals through to their eventual installation but with the emphasis placed on design, operation, troubleshooting, and control. Various aspects relating to the initial design of column internals are covered, including simulation packages and VLE. Current internals are reviewed including critical design aspects of trays, packing and auxiliary equipment. Distillation column control is an essential ingredient in cost-effective operations, safety, and environmental management.

## **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.

## **COURSE 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

## **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.