



Practical Onsite Welding: Techniques & Safety (5 Days)

4 – 8 October 2026
Chicago



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Ref: 103600550_105832 **Date:** 4 – 8 October 2026 **Location:** Chicago **Fees:** 16000 Euro

Course Overview:

The course aims to enhance the skills and knowledge of welders and engineers through hands-on, practical experience in various welding techniques. It covers essential topics such as welding training programs, welder improvement courses, and onsite welding workshops. Participants will gain in-depth knowledge of advanced welding techniques, safety protocols, and the latest industry standards. By attending this course, participants will learn to execute welding procedures precisely, ensuring compliance with welding standards and codes. The course also offers specialized welding seminars catering to specific industry needs, making it a valuable resource for professionals seeking welding certification training and industrial welding education. The combination of practical training, expert instruction, and real-world applications ensures that participants leave with the skills necessary to excel in their field.

Target Audience:

- Welding Engineers
- Maintenance Technicians
- Industrial Welders
- Production Supervisors
- Quality Control Inspectors
- Professionals seeking Welding Certification Training

Targeted Organizational Departments:

- Maintenance and Repair Departments
- Quality Assurance and Control
- Production and Manufacturing Units
- Engineering and Design Departments
- Health, Safety, and Environmental HSE Departments

Targeted Industries:

- Manufacturing
- Oil & Gas
- Construction
- Automotive
- Aerospace
- Shipbuilding
- Energy and Utilities

Course Offerings:

By the end of this course, participants will be able to:

- Develop and apply advanced welding techniques and safety measures.
- Perform welding procedure specifications with high accuracy.
- Improve welding quality control processes.
- Execute welding certification training for professional development.
- Utilize welding technology training for better productivity.
- Implement welding standards and codes compliance in daily operations.
- Master practical welding skills development through onsite workshops.

Training Methodology:

The course utilizes interactive training methods to ensure an engaging and effective learning experience. Participants will take part in hands-on practical workshops, case studies, and group work sessions designed to simulate real-world welding challenges. Specialized welding seminars will provide detailed instruction on topics such as welding stainless steel, aluminium, and advanced welding techniques. Regular feedback sessions will be conducted to assess progress and offer personalized guidance. The training also includes welding technology and welding quality control exercises to ensure that participants not only learn but also apply the knowledge gained in practical settings.

Course Toolbox:

- Checklists for welding defects prevention and repair.
- Templates for welding procedure specification and development.



Course Agenda:

Day 1: Introduction to Metalwork and Welding Fundamentals

- **Topic 1:** Overview of Metalwork: Concepts and Principles
- **Topic 2:** Introduction to Welding Engineering Services
- **Topic 3:** Understanding Metal Properties and Their Applications
- **Topic 4:** Introduction to Welding Standards and Codes Compliance
- **Topic 5:** Practical Session: Hands-on Training in Metalwork
- **Topic 6:** Basics of Metal Cutting Techniques
- **Reflection & Review:** Day 1 Learnings and Q&A

Day 2: Metal Cutting, Shaping, and Welding Techniques

- **Topic 1:** Metal Cutting Techniques: Tools and Methods
- **Topic 2:** Advanced Metal Shaping & Forming Techniques
- **Topic 3:** Welding Procedure Specification: Development and Implementation
- **Topic 4:** Shielded Metal Arc Welding SMAW: Basics and Applications
- **Topic 5:** Practical Session: Metal Cutting, Shaping, and Welding Techniques
- **Topic 6:** Welding Safety: Best Practices and Protocols
- **Reflection & Review:** Day 2 Learnings and Practical Feedback

Day 3: Advanced Welding and Maintenance Techniques

- **Topic 1:** Gas Metal Arc Welding GMAW: Parameters and Best Practices
- **Topic 2:** Gas Tungsten Arc Welding GTAW: Techniques and Safety
- **Topic 3:** Oxy-Gas Welding and Brazing: Processes and Applications
- **Topic 4:** Submerged Arc Welding SAW: Industrial Applications
- **Topic 5:** Maintenance and Hardfacing Applications in Welding
- **Topic 6:** Practical Session: Advanced Welding Techniques
- **Reflection & Review:** Advanced Techniques Summary and Q&A

Day 4: Welding Applications and Inspection

- **Topic 1:** Pipe Welding: Methods and Challenges
- **Topic 2:** Welding Stainless Steels: Techniques and Considerations
- **Topic 3:** Welding Aluminum and Its Alloys: Specific Techniques
- **Topic 4:** Welding Inspection: Techniques and Standards
- **Topic 5:** Practical Session: Welding Applications and Inspection
- **Topic 6:** Welding Engineering Services: Ensuring Compliance
- **Reflection & Review:** Inspection and Quality Control Summary

Day 5: Project Implementation and Final Assessment

- **Topic 1:** Project Planning: Welding Applications
- **Topic 2:** Execution of Welding Techniques: Onsite Applications
- **Topic 3:** Quality Control during Welding Projects
- **Topic 4:** Welding Certification Preparation
- **Topic 5:** Practical Session: Welding Project Implementation
- **Topic 6:** Course Conclusion: Certification and Next Steps
- **Reflection & Review:** Final Reflections and Course Wrap-Up

How This Course is Different from Other Welding Training Courses:

This welding course is unique because it takes a hands-on approach to welding training. Instead of just focusing on theory, the course includes practical workshops and onsite sessions, allowing participants to apply what they've learned right away. The course also covers advanced welding techniques, quality control, and specialized seminars tailored to industry needs. Additionally, participants receive personalized feedback and practical assessments, making it an immersive learning experience that prepares them for success in the welding industry.