

Welding Metallurgy and Weld Defects Analysis Training Course

OGI-1263 · 5 days · 15 CPD hours · English

Overview

The Welding Metallurgy and Weld Defects Analysis Training Course from [Institute For Oil & Gas Training](#) develops the technical capabilities required to evaluate weld metallurgy, identify weld discontinuities, and understand the failure mechanisms that affect the integrity of oil and gas equipment, pipelines, pressure vessels, and structural components. This professional training course addresses the gap between routine welding inspection and the deeper metallurgical understanding needed to investigate defects, assess their significance, and support reliable engineering decisions throughout the asset lifecycle.

Welding is fundamental to the construction, modification, repair, and maintenance of oil and gas infrastructure. The quality of a welded joint depends on material composition, welding procedures, heat input, cooling conditions, joint preparation, and the control of fabrication variables. When these factors are not properly managed, defects and undesirable metallurgical changes compromise weld integrity, increase inspection requirements, and create risks for operational reliability. Understanding the relationship between welding processes and material behaviour allows organisations to address these concerns through evidence-based inspection, assessment, and corrective action.

The Welding Metallurgy and Weld Defects Analysis course examines how metals respond to welding and how these responses influence the properties and service performance of welded components. Participants explore the behaviour of carbon steels, alloy steels, stainless steels, and other materials commonly encountered in oil and gas facilities. The programme explains the metallurgical transformations that occur during welding, including changes in grain structure, hardness, toughness, residual stress, and susceptibility to cracking.

A central component of the course is the examination of the heat-affected zone, which is the region of the parent material influenced by welding heat without being melted. Changes in this region affect mechanical properties and influence susceptibility to cracking, brittle behaviour, and other forms of degradation. Participants learn to connect welding conditions with microstructural changes and recognise why the heat-affected zone requires particular attention during inspection and failure investigations.

The programme also provides a structured approach to identifying and analysing weld discontinuities. These include cracks, porosity, slag inclusions, lack of fusion, incomplete penetration, undercut, and other imperfections associated with welding processes and fabrication conditions. Participants examine the difference between identifying a discontinuity and determining whether it represents an unacceptable defect under the applicable acceptance criteria. This distinction is important because inspection findings must be interpreted against engineering requirements, material characteristics, service conditions, and the governing construction or inspection standard.

Metallurgical defects require more than visual identification. Their significance depends on their location, size, orientation, distribution, formation mechanism, and interaction with operational stresses and environmental conditions. The course therefore explores the relationship between weld defects, fracture behaviour, fatigue,

corrosion, hydrogen-assisted cracking, and other failure mechanisms relevant to oil and gas operations. This approach supports more accurate defect evaluation and strengthens the connection between inspection findings and engineering decisions.

For operators, engineering contractors, fabrication facilities, and maintenance organisations, the ability to interpret welding-related damage has direct implications for asset integrity. Incorrect defect classification, incomplete investigations, or unsuitable repair decisions contribute to rework, unplanned maintenance, delayed commissioning, and recurring equipment problems. A stronger understanding of weld metallurgy enables personnel to recognise the limitations of inspection findings, request appropriate supplementary examinations, and communicate technical concerns effectively to materials engineers, welding specialists, and inspection teams.

Delivered by Institute For Oil & Gas Training, this course combines practical metallurgical principles with industry-relevant inspection and failure analysis scenarios. It equips participants to evaluate weld quality systematically, interpret evidence from non-destructive testing, understand material-related failure mechanisms, and support technically defensible decisions across fabrication, commissioning, operation, and maintenance activities.

Objectives

- Explain the fundamental principles of weld metallurgy and their significance for oil and gas equipment integrity.
- Distinguish between the fusion zone, heat-affected zone, and unaffected parent material.
- Assess how welding parameters, material composition, and cooling conditions influence microstructure and mechanical properties.
- Identify common weld discontinuities and understand the mechanisms responsible for their formation.
- Differentiate between an observed discontinuity and an unacceptable defect under the relevant acceptance criteria.
- Interpret the significance of cracks, porosity, inclusions, lack of fusion, incomplete penetration, and surface imperfections.
- Explain the relationship between welding practices, hardness variations, residual stresses, and cracking susceptibility.
- Recognise metallurgical defects associated with hydrogen-assisted cracking, fatigue, brittle fracture, and other failure mechanisms.
- Understand the capabilities and limitations of common non-destructive testing methods used to evaluate welded joints.

- Apply relevant welding, inspection, and material standards when reviewing weld quality and defect acceptance.
- Evaluate welding-related failure evidence and identify the additional information required for a reliable investigation.
- Contribute to repair assessments, corrective action planning, inspection reviews, and quality assurance activities.
- Improve technical communication between welding, inspection, materials, maintenance, and operations personnel.
- Support consistent engineering decisions that strengthen asset integrity, reduce avoidable rework, and improve the reliability of welded components.

Training methodology

Institute For Oil & Gas Training uses an applied, industry-focused methodology that connects welding metallurgy principles with the practical demands of oil and gas construction, inspection, maintenance, and asset integrity management. The delivery approach combines technical presentations, illustrated case studies, defect interpretation exercises, group discussions, and realistic engineering scenarios.

The emphasis is on understanding why defects form, how they affect material performance, and which evidence supports an appropriate response. Participants develop a structured approach to investigating welding problems rather than relying exclusively on defect names or visual appearance.

Applied Technical Presentations

Technical presentations establish the principles of weld metallurgy, material behaviour, heat transfer, solidification, microstructural transformation, and weld quality. Explanations connect these principles with practical issues involving pipelines, pressure-containing equipment, process plant components, storage facilities, and fabricated structures.

Illustrations of weld cross-sections and metallurgical features help participants understand the relationship between the fusion zone, heat-affected zone, and parent material. The sessions also examine how welding parameters and material characteristics influence hardness, toughness, residual stresses, and cracking susceptibility.

Weld Defect Case Studies

Case studies examine realistic welding problems involving fabrication, repair, inspection, and in-service equipment. Participants review reported defects, relevant inspection findings, welding information, and operating conditions to identify potential causes and assess the implications for component integrity.

The exercises encourage a distinction between an observed indication, a confirmed discontinuity, and a defect that fails an applicable acceptance criterion. Participants discuss how incomplete information affects engineering judgement and identify the additional evidence required to support a reliable conclusion.

Inspection Interpretation Exercises

Participants work with representative inspection findings involving visual testing, ultrasonic testing, radiographic testing, magnetic particle testing, and liquid penetrant testing. The exercises focus on understanding what each method reveals, the limitations of the evidence, and the relationship between an inspection indication and the underlying metallurgical condition.

These activities strengthen communication between welding inspectors, non-destructive testing personnel, materials engineers, and maintenance teams. They also reinforce the need to use qualified personnel, suitable procedures, and the acceptance criteria specified by the applicable project or inspection requirements.

Group-Based Failure Analysis

Group exercises explore failure mechanisms such as fatigue cracking, brittle fracture, hydrogen-assisted cracking, corrosion-related damage, and cracking associated with unsuitable welding practices. Participants examine how material properties, weld geometry, loading conditions, fabrication history, and service environments interact.

Each group develops a reasoned assessment of the likely damage mechanism and identifies the evidence needed to verify the proposed explanation. This process strengthens problem-solving, technical reporting, and multidisciplinary decision-making.

Practical Engineering Scenarios

Realistic scenarios place participants in situations involving weld rejection, recurring fabrication defects, repair planning, inspection findings, and equipment damage. They assess the immediate concern, establish relevant technical questions, identify suitable examinations, and determine when specialist engineering input is necessary.

The methodology supports direct application in the workplace by connecting metallurgical knowledge with inspection planning, repair evaluation, quality assurance, and asset integrity decisions. Participants leave with a clearer framework for investigating welding problems and communicating technically supported recommendations.

Organisational impact

Investing in Welding Metallurgy and Weld Defects Analysis training strengthens an organisation's ability to manage welded components throughout construction, commissioning, operation, and maintenance. The programme improves the technical basis for weld inspection, defect evaluation, repair planning, and failure investigation.

Improved Weld Quality and Fabrication Control

A sound understanding of weld metallurgy helps personnel recognise the relationship between welding procedures, material characteristics, heat input, and the formation of defects. This supports more effective reviews of fabrication records, welding procedure requirements, inspection results, and corrective actions.

Organisations benefit from earlier recognition of recurring defect patterns and a more structured approach to investigating their causes. Teams can use these findings to improve fabrication controls, address workmanship issues, and reduce the repetition of avoidable welding problems.

Reduced Rework and Repair Costs

Welding defects frequently require additional examination, repair, reinspection, and documentation. Poorly understood defect causes can lead to repeated repairs without resolving the underlying problem. Metallurgical knowledge helps personnel identify the likely origin of defects and determine which technical questions require further investigation.

The resulting improvement in defect evaluation supports better repair planning, more focused examinations, and more effective corrective action. Organisations can monitor progress through indicators such as weld rejection rates, repair frequency, repeat defect occurrences, non-conformance closure time, and inspection-related rework costs.

Stronger Asset Integrity Management

Welded joints form critical parts of pipelines, pressure vessels, tanks, process equipment, and structural systems. Defects that remain unidentified or inadequately assessed affect the ability to demonstrate component integrity and manage operational risks.

The course strengthens the contribution of welding inspection and materials expertise to asset integrity programmes. Personnel gain a clearer understanding of how defect characteristics, material properties, loading conditions, and service environments influence the significance of inspection findings.

This supports more informed discussions about fitness for service, engineering assessment, repair requirements, and continued operation. Decisions remain subject to the applicable technical assessment, authorised engineering review, and governing acceptance requirements.

More Effective Failure Investigations

A recurring weld failure often reflects an interaction between fabrication conditions, material behaviour, stress, and service exposure. Without a systematic investigation, organisations risk treating the visible damage while leaving the underlying cause unresolved.

The course develops a structured approach to identifying plausible failure mechanisms, reviewing available evidence, and determining the need for further testing or specialist analysis. This supports stronger root cause investigations, clearer technical reports, and corrective actions directed at the factors responsible for the failure.

Improved Inspection and Quality Assurance

A shared understanding of weld discontinuities improves the quality of discussions between inspection teams, welding engineers, quality personnel, and contractors. Participants learn to interpret findings within the context of applicable procedures and acceptance criteria rather than relying on isolated descriptions.

This improves the consistency of inspection reviews, non-conformance documentation, repair verification, and quality records. It also supports better coordination between fabrication and inspection activities, particularly where several contractors or technical disciplines contribute to the same project.

Better Safety and Compliance Support

Welding defects in pressure-containing or load-bearing components require appropriate technical assessment because their significance depends on the equipment, defect characteristics, and operating conditions. Stronger metallurgical awareness helps personnel recognise potentially serious findings and escalate them through the correct engineering

and inspection processes.

The course supports compliance activities by improving understanding of relevant codes, standards, documented procedures, and acceptance requirements. It does not replace formal inspection qualifications, authorised engineering approval, or the organisation's established safety management arrangements.

Measurable Operational Improvement

Organisations can evaluate the practical contribution of the training through existing quality, maintenance, and asset integrity indicators. Relevant measures include weld repair rates, recurring defect trends, inspection rework, non-conformance closure times, investigation quality, and the proportion of corrective actions completed within agreed timescales.

Establishing a baseline before training and reviewing results afterwards helps management determine whether improved technical understanding is translating into better operational performance. The strongest results come from combining workforce capability development with consistent procedures, competent supervision, effective inspection, and documented engineering decision-making.

Personal impact

The course equips participants with practical knowledge that strengthens their ability to evaluate welding quality, understand material behaviour, and contribute to engineering decisions. It is particularly valuable for professionals who regularly review inspection reports, supervise fabrication activities, investigate defects, or support maintenance and asset integrity programmes.

Stronger Understanding of Weld Metallurgy

Participants develop a clearer understanding of the physical and metallurgical changes produced by welding. They learn how material composition, thermal cycles, cooling conditions, and welding practices influence the properties of the completed joint.

This knowledge enables them to explain why apparently similar welds exhibit different performance characteristics and why certain locations require additional inspection or technical assessment.

Improved Defect Recognition and Interpretation

Participants strengthen their ability to recognise common weld discontinuities and understand the possible causes behind them. They learn to consider defect location, orientation, size, distribution, and interaction with service conditions when interpreting inspection results.

This provides a more reliable basis for raising technical queries, reviewing non-conformance reports, and discussing defect significance with relevant specialists.

Better Failure Analysis Skills

The course introduces a systematic approach to examining welding-related failures. Participants develop the ability to connect physical evidence with possible failure mechanisms and distinguish between an initial observation and a

supported technical conclusion.

These skills improve their contribution to root cause investigations, technical reporting, corrective action reviews, and discussions concerning component repair or replacement.

Greater Confidence in Cross-Functional Communication

Welding quality decisions involve several disciplines, including fabrication, inspection, metallurgy, materials engineering, maintenance, and operations. Participants gain a more precise technical vocabulary for communicating concerns, explaining evidence, and identifying information gaps.

This improves their ability to contribute to multidisciplinary reviews and communicate inspection findings to both technical colleagues and operational decision-makers.

Stronger Professional Capability

Participants strengthen the technical foundation required for responsibilities involving welding inspection, quality assurance, materials evaluation, fabrication supervision, and asset integrity support. They also develop a better understanding of when an issue requires specialist metallurgical testing, advanced non-destructive examination, or formal engineering assessment.

The knowledge gained supports professional development and helps individuals undertake welding-related responsibilities with a more systematic, evidence-based approach. The course provides a Certificate of Completion in accordance with the stated attendance requirements but does not independently confer a professional licence or statutory inspection authorisation.

Who should attend

- **Welding Inspectors:** Strengthen their understanding of defect formation, weld acceptance, and the metallurgical factors affecting inspection findings.
- **Welding Engineers:** Improve their ability to evaluate welding procedures, investigate defects, and assess the relationship between welding parameters and material performance.
- **Metallurgical and Materials Engineers:** Develop a more focused understanding of weld microstructures, heat-affected zone behaviour, and welding-related failure mechanisms.
- **Non-Destructive Testing Personnel:** Improve interpretation of inspection indications and understand the metallurgical context and limitations of examination results.
- **Quality Assurance and Quality Control Professionals:** Strengthen weld quality reviews, non-conformance assessments, inspection documentation, and corrective action processes.

- Pipeline Integrity Engineers: Improve their understanding of weld-related threats affecting pipeline construction, repair, inspection, and continued service.
- Asset Integrity Engineers: Connect welding defect characteristics with equipment integrity assessments, repair decisions, and operational risk management.
- Maintenance and Reliability Engineers: Improve their ability to assess welding-related damage and contribute to effective repair planning and recurring defect prevention.
- Corrosion and Failure Analysis Specialists: Understand how welding conditions interact with corrosion exposure, cracking susceptibility, and other material degradation processes.
- Fabrication and Construction Managers: Strengthen oversight of welding quality, defect prevention, inspection coordination, and fabrication non-conformance management.
- Project Engineers and Project Managers: Improve their understanding of welding-related quality risks and the technical information required to manage fabrication and commissioning issues.
- Inspection Supervisors and Coordinators: Improve coordination between examination activities, defect evaluation, reporting, and engineering escalation.
- Technical and Operations Managers: Develop the technical awareness required to evaluate welding-related concerns and allocate appropriate engineering and inspection resources.
- Contractor and Vendor Quality Representatives: Improve their ability to review welding documentation, communicate fabrication defects, and support consistent quality requirements across suppliers.

Course outline

Fundamentals of Weld Metallurgy and Material Behaviour

This module establishes the metallurgical principles required to understand the performance of welded components in oil and gas facilities. Participants examine the relationship between base material composition, welding processes, heat input, solidification, cooling conditions, and the resulting microstructure of the weld.

The module also explores the fusion zone, heat-affected zone, and parent material as distinct regions with different thermal histories and material properties. Participants consider how variations in hardness, toughness, grain structure, and residual stress influence weld quality and the susceptibility of components to damage during fabrication and service.

Weld Discontinuities, Defect Formation, and Acceptance

This module examines common weld discontinuities and the fabrication conditions associated with their formation. Participants review cracks, porosity, slag inclusions, lack of fusion, incomplete penetration, undercut, overlap, and other imperfections that affect welded joints.

The module distinguishes between the presence of a discontinuity and its classification as an unacceptable defect. Participants examine how acceptance decisions depend on the applicable construction code, inspection requirements, defect dimensions, location, and component service conditions. Particular attention is given to the need for accurate documentation, appropriate examination methods, and consistent application of acceptance criteria.

Heat-Affected Zone, Metallurgical Changes, and Cracking

This module focuses on the heat-affected zone and the metallurgical changes that occur when the parent material experiences the thermal cycle of welding. Participants examine grain growth, local hardening, softening, changes in toughness, and the influence of material composition and cooling rate on weld performance.

The module also explores cracking mechanisms associated with welding and subsequent service. These include hydrogen-assisted cracking, solidification cracking, liquation cracking, and other forms of weld-related cracking. Participants examine how hydrogen exposure, restraint, residual stress, material susceptibility, and thermal conditions interact, and why identifying the probable mechanism is essential to selecting suitable corrective action.

Non-Destructive Testing and Metallurgical Defect Evaluation

This module examines the role of non-destructive testing in identifying and characterising weld discontinuities. Participants review the principles and applications of visual testing, radiographic testing, ultrasonic testing, magnetic particle testing, and liquid penetrant testing, with attention to their respective capabilities and limitations.

The module explains how inspection results contribute to metallurgical defect analysis without necessarily establishing the complete cause or severity of a defect. Participants consider the importance of examination procedures, personnel competence, equipment suitability, material characteristics, and inspection records. They also explore how supplementary testing, metallographic examination, hardness measurements, or engineering assessment supports the investigation of complex welding problems.

Failure Mechanisms, Root Cause Analysis, and Corrective Action

This module integrates the metallurgical and inspection principles covered throughout the programme into a structured approach to welding-related failure analysis. Participants examine failure mechanisms including fatigue, brittle fracture, hydrogen-assisted cracking, corrosion-related damage, and cracking associated with unsuitable fabrication or repair practices.

The module explores how to review physical evidence, fabrication records, material certificates, welding documentation, inspection reports, and operating history when investigating a failed or defective component. Participants consider the role of supplementary testing and specialist engineering assessment in establishing root causes. The final focus is on corrective action, repair evaluation, defect prevention, and the use of investigation findings to improve organisational welding quality and asset integrity.

Scheduled dates

Dates	Venue	Format	Fee
26 - 30 Oct 2026	Abu Dhabi, United Arab Emirates	In person	£4,500
26 - 30 Oct 2026	Abuja, Nigeria	In person	£4,500
26 - 30 Oct 2026	Accra, Ghana	In person	£4,500
26 - 30 Oct 2026	Addis Ababa, Ethiopia	In person	£4,500
26 - 30 Oct 2026	Al Ain, United Arab Emirates	In person	£4,500
26 - 30 Oct 2026	Al Khobar, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Alberta, Canada	In person	£4,500
26 - 30 Oct 2026	AlUla, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Amman, Jordan	In person	£4,500
26 - 30 Oct 2026	Amsterdam, Netherlands	In person	£4,500
26 - 30 Oct 2026	Athens, Greece	In person	£4,500
26 - 30 Oct 2026	Baku, Azerbaijan	In person	£4,500
26 - 30 Oct 2026	Barcelona, Spain	In person	£4,500
26 - 30 Oct 2026	Berlin, Germany	In person	£4,500
26 - 30 Oct 2026	Boston, United States	In person	£4,500
26 - 30 Oct 2026	Brussels, Belgium	In person	£4,500
26 - 30 Oct 2026	Budapest, Hungary	In person	£4,500
26 - 30 Oct 2026	Cairo, Egypt	In person	£4,500
26 - 30 Oct 2026	Cape Town, South Africa	In person	£4,500
26 - 30 Oct 2026	Casablanca, Morocco	In person	£4,500
26 - 30 Oct 2026	Dammam, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Dhahran, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Doha, Qatar	In person	£4,500
26 - 30 Oct 2026	Dubai, United Arab Emirates	In person	£4,500
26 - 30 Oct 2026	Edinburgh, United Kingdom	In person	£4,500
26 - 30 Oct 2026	Edmonton, Canada	In person	£4,500

Dates	Venue	Format	Fee
26 - 30 Oct 2026	Frankfurt, Germany	In person	£4,500
26 - 30 Oct 2026	Geneva, Switzerland	In person	£4,500
26 - 30 Oct 2026	Houston, United States	In person	£4,500
26 - 30 Oct 2026	Istanbul, Turkey	In person	£4,500
26 - 30 Oct 2026	Jakarta, Indonesia	In person	£4,500
26 - 30 Oct 2026	Jeddah, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Jubail, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Khamis Mushait, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Kigali, Rwanda	In person	£4,500
26 - 30 Oct 2026	Kuala Lumpur, Malaysia	In person	£4,500
26 - 30 Oct 2026	Lisbon, Portugal	In person	£4,500
26 - 30 Oct 2026	Liverpool, United Kingdom	In person	£4,500
26 - 30 Oct 2026	London, United Kingdom	In person	£4,500
26 - 30 Oct 2026	Los Angeles, United States	In person	£4,500
26 - 30 Oct 2026	Luanda, Angola	In person	£4,500
26 - 30 Oct 2026	Madrid, Spain	In person	£4,500
26 - 30 Oct 2026	Manama, Bahrain	In person	£4,500
26 - 30 Oct 2026	Marbella, Spain	In person	£4,500
26 - 30 Oct 2026	Marrakech, Morocco	In person	£4,500
26 - 30 Oct 2026	Miami, United States	In person	£4,500
26 - 30 Oct 2026	Milan, Italy	In person	£4,500
26 - 30 Oct 2026	Munich, Germany	In person	£4,500
26 - 30 Oct 2026	Muscat, Oman	In person	£4,500
26 - 30 Oct 2026	Nairobi, Kenya	In person	£4,500
26 - 30 Oct 2026	New York, United States	In person	£4,500
26 - 30 Oct 2026	Nice, France	In person	£4,500

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26 - 30 Oct 2026	Nouakchott, Mauritania	In person	£4,500
26 - 30 Oct 2026	Oslo, Norway	In person	£4,500
26 - 30 Oct 2026	Paris, France	In person	£4,500
26 - 30 Oct 2026	Port Louis, Mauritius	In person	£4,500
26 - 30 Oct 2026	Prague, Czech Republic	In person	£4,500
26 - 30 Oct 2026	Pretoria, South Africa	In person	£4,500
26 - 30 Oct 2026	Riyadh, Saudi Arabia	In person	£4,500
26 - 30 Oct 2026	Rome, Italy	In person	£4,500
26 - 30 Oct 2026	Sarajevo, Bosnia and Herzegovina	In person	£4,500
26 - 30 Oct 2026	Sharm El Sheikh, Egypt	In person	£4,500
26 - 30 Oct 2026	Singapore	In person	£4,500
26 - 30 Oct 2026	Stockholm, Sweden	In person	£4,500
26 - 30 Oct 2026	Tokyo, Japan	In person	£4,500
26 - 30 Oct 2026	Toronto, Canada	In person	£4,500
26 - 30 Oct 2026	Tromso, Norway	In person	£4,500
26 - 30 Oct 2026	Vienna, Austria	In person	£4,500
26 - 30 Oct 2026	Zagreb, Croatia	In person	£4,500
26 - 30 Oct 2026	Zurich, Switzerland	In person	£4,500
26 - 30 Oct 2026	Online, Virtual	Online	£4,500
22 - 26 Feb 2027	Abu Dhabi, United Arab Emirates	In person	£4,500
22 - 26 Feb 2027	Abuja, Nigeria	In person	£4,500
22 - 26 Feb 2027	Accra, Ghana	In person	£4,500
22 - 26 Feb 2027	Addis Ababa, Ethiopia	In person	£4,500
22 - 26 Feb 2027	Al Ain, United Arab Emirates	In person	£4,500
22 - 26 Feb 2027	Al Khobar, Saudi Arabia	In person	£4,500
22 - 26 Feb 2027	Alberta, Canada	In person	£4,500

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22 - 26 Feb 2027	AlUla, Saudi Arabia	In person	£4,500
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21 - 25 Jun 2027	Edmonton, Canada	In person	£4,500
21 - 25 Jun 2027	Frankfurt, Germany	In person	£4,500
21 - 25 Jun 2027	Geneva, Switzerland	In person	£4,500
21 - 25 Jun 2027	Houston, United States	In person	£4,500
21 - 25 Jun 2027	Istanbul, Turkey	In person	£4,500
21 - 25 Jun 2027	Jakarta, Indonesia	In person	£4,500
21 - 25 Jun 2027	Jeddah, Saudi Arabia	In person	£4,500
21 - 25 Jun 2027	Jubail, Saudi Arabia	In person	£4,500
21 - 25 Jun 2027	Khamis Mushait, Saudi Arabia	In person	£4,500
21 - 25 Jun 2027	Kigali, Rwanda	In person	£4,500
21 - 25 Jun 2027	Kuala Lumpur, Malaysia	In person	£4,500
21 - 25 Jun 2027	Lisbon, Portugal	In person	£4,500
21 - 25 Jun 2027	Liverpool, United Kingdom	In person	£4,500
21 - 25 Jun 2027	London, United Kingdom	In person	£4,500
21 - 25 Jun 2027	Los Angeles, United States	In person	£4,500

Dates	Venue	Format	Fee
21 - 25 Jun 2027	Luanda, Angola	In person	£4,500
21 - 25 Jun 2027	Madrid, Spain	In person	£4,500
21 - 25 Jun 2027	Manama, Bahrain	In person	£4,500
21 - 25 Jun 2027	Marbella, Spain	In person	£4,500
21 - 25 Jun 2027	Marrakech, Morocco	In person	£4,500
21 - 25 Jun 2027	Miami, United States	In person	£4,500
21 - 25 Jun 2027	Milan, Italy	In person	£4,500
21 - 25 Jun 2027	Munich, Germany	In person	£4,500
21 - 25 Jun 2027	Muscat, Oman	In person	£4,500
21 - 25 Jun 2027	Nairobi, Kenya	In person	£4,500
21 - 25 Jun 2027	New York, United States	In person	£4,500
21 - 25 Jun 2027	Nice, France	In person	£4,500
21 - 25 Jun 2027	Nouakchott, Mauritania	In person	£4,500
21 - 25 Jun 2027	Oslo, Norway	In person	£4,500
21 - 25 Jun 2027	Paris, France	In person	£4,500
21 - 25 Jun 2027	Port Louis, Mauritius	In person	£4,500
21 - 25 Jun 2027	Prague, Czech Republic	In person	£4,500
21 - 25 Jun 2027	Pretoria, South Africa	In person	£4,500
21 - 25 Jun 2027	Riyadh, Saudi Arabia	In person	£4,500
21 - 25 Jun 2027	Rome, Italy	In person	£4,500
21 - 25 Jun 2027	Sarajevo, Bosnia and Herzegovina	In person	£4,500
21 - 25 Jun 2027	Sharm El Sheikh, Egypt	In person	£4,500
21 - 25 Jun 2027	Singapore	In person	£4,500
21 - 25 Jun 2027	Stockholm, Sweden	In person	£4,500
21 - 25 Jun 2027	Tokyo, Japan	In person	£4,500
21 - 25 Jun 2027	Toronto, Canada	In person	£4,500

Dates	Venue	Format	Fee
21 - 25 Jun 2027	Tromso, Norway	In person	£4,500
21 - 25 Jun 2027	Vienna, Austria	In person	£4,500
21 - 25 Jun 2027	Zagreb, Croatia	In person	£4,500
21 - 25 Jun 2027	Zurich, Switzerland	In person	£4,500
21 - 25 Jun 2027	Online, Virtual	Online	£4,500
25 - 29 Oct 2027	Abu Dhabi, United Arab Emirates	In person	£4,500
25 - 29 Oct 2027	Abuja, Nigeria	In person	£4,500
25 - 29 Oct 2027	Accra, Ghana	In person	£4,500
25 - 29 Oct 2027	Addis Ababa, Ethiopia	In person	£4,500
25 - 29 Oct 2027	Al Ain, United Arab Emirates	In person	£4,500
25 - 29 Oct 2027	Al Khobar, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Alberta, Canada	In person	£4,500
25 - 29 Oct 2027	AlUla, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Amman, Jordan	In person	£4,500
25 - 29 Oct 2027	Amsterdam, Netherlands	In person	£4,500
25 - 29 Oct 2027	Athens, Greece	In person	£4,500
25 - 29 Oct 2027	Baku, Azerbaijan	In person	£4,500
25 - 29 Oct 2027	Barcelona, Spain	In person	£4,500
25 - 29 Oct 2027	Berlin, Germany	In person	£4,500
25 - 29 Oct 2027	Boston, United States	In person	£4,500
25 - 29 Oct 2027	Brussels, Belgium	In person	£4,500
25 - 29 Oct 2027	Budapest, Hungary	In person	£4,500
25 - 29 Oct 2027	Cairo, Egypt	In person	£4,500
25 - 29 Oct 2027	Cape Town, South Africa	In person	£4,500
25 - 29 Oct 2027	Casablanca, Morocco	In person	£4,500
25 - 29 Oct 2027	Dammam, Saudi Arabia	In person	£4,500

Dates	Venue	Format	Fee
25 - 29 Oct 2027	Dhahran, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Doha, Qatar	In person	£4,500
25 - 29 Oct 2027	Dubai, United Arab Emirates	In person	£4,500
25 - 29 Oct 2027	Edinburgh, United Kingdom	In person	£4,500
25 - 29 Oct 2027	Edmonton, Canada	In person	£4,500
25 - 29 Oct 2027	Frankfurt, Germany	In person	£4,500
25 - 29 Oct 2027	Geneva, Switzerland	In person	£4,500
25 - 29 Oct 2027	Houston, United States	In person	£4,500
25 - 29 Oct 2027	Istanbul, Turkey	In person	£4,500
25 - 29 Oct 2027	Jakarta, Indonesia	In person	£4,500
25 - 29 Oct 2027	Jeddah, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Jubail, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Khamis Mushait, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Kigali, Rwanda	In person	£4,500
25 - 29 Oct 2027	Kuala Lumpur, Malaysia	In person	£4,500
25 - 29 Oct 2027	Lisbon, Portugal	In person	£4,500
25 - 29 Oct 2027	Liverpool, United Kingdom	In person	£4,500
25 - 29 Oct 2027	London, United Kingdom	In person	£4,500
25 - 29 Oct 2027	Los Angeles, United States	In person	£4,500
25 - 29 Oct 2027	Luanda, Angola	In person	£4,500
25 - 29 Oct 2027	Madrid, Spain	In person	£4,500
25 - 29 Oct 2027	Manama, Bahrain	In person	£4,500
25 - 29 Oct 2027	Marbella, Spain	In person	£4,500
25 - 29 Oct 2027	Marrakech, Morocco	In person	£4,500
25 - 29 Oct 2027	Miami, United States	In person	£4,500
25 - 29 Oct 2027	Milan, Italy	In person	£4,500

Dates	Venue	Format	Fee
25 - 29 Oct 2027	Munich, Germany	In person	£4,500
25 - 29 Oct 2027	Muscat, Oman	In person	£4,500
25 - 29 Oct 2027	Nairobi, Kenya	In person	£4,500
25 - 29 Oct 2027	New York, United States	In person	£4,500
25 - 29 Oct 2027	Nice, France	In person	£4,500
25 - 29 Oct 2027	Nouakchott, Mauritania	In person	£4,500
25 - 29 Oct 2027	Oslo, Norway	In person	£4,500
25 - 29 Oct 2027	Paris, France	In person	£4,500
25 - 29 Oct 2027	Port Louis, Mauritius	In person	£4,500
25 - 29 Oct 2027	Prague, Czech Republic	In person	£4,500
25 - 29 Oct 2027	Pretoria, South Africa	In person	£4,500
25 - 29 Oct 2027	Riyadh, Saudi Arabia	In person	£4,500
25 - 29 Oct 2027	Rome, Italy	In person	£4,500
25 - 29 Oct 2027	Sarajevo, Bosnia and Herzegovina	In person	£4,500
25 - 29 Oct 2027	Sharm El Sheikh, Egypt	In person	£4,500
25 - 29 Oct 2027	Singapore	In person	£4,500
25 - 29 Oct 2027	Stockholm, Sweden	In person	£4,500
25 - 29 Oct 2027	Tokyo, Japan	In person	£4,500
25 - 29 Oct 2027	Toronto, Canada	In person	£4,500
25 - 29 Oct 2027	Tromso, Norway	In person	£4,500
25 - 29 Oct 2027	Vienna, Austria	In person	£4,500
25 - 29 Oct 2027	Zagreb, Croatia	In person	£4,500
25 - 29 Oct 2027	Zurich, Switzerland	In person	£4,500
25 - 29 Oct 2027	Online, Virtual	Online	£4,500

Certificate

Participants who successfully complete the Welding Metallurgy and Weld Defects Analysis Training Course receive a Certificate of Completion from Institute For Oil & Gas Training.

The certificate recognises completion of the training programme and participation in its professional development activities. Attendees must satisfy the institute's required attendance criteria to qualify for the certificate. The certificate confirms course completion and does not replace professional certification, statutory authorisation, or employer-specific competency requirements.