COURSE OVERVIEW FE0860
AWS Certified Welding Inspector (CWI)

Course Title
AWS Certified Welding Inspector (CWI)

Course Date/Venue
July 12-16, 2026/Boardroom 2, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Course/Exam Date/Venue:
Exam Date: Part B Exam: July 17, 2026
Exam Venue: Haward Examination Center, Ajman, UAE
Exam Registration Closing Date: June 19, 2026

Course Duration/Credits
Five days (40 hours)/4.0 CEUs/40 PDHs

Course Reference
FE0860

Course Description

This practical and highly-interactive course includes practical sessions and exercises where participants carryout welding inspection. Theory learnt in the class will be applied using the "AWS Tool Kit" and "Structural Weld Replica Kit" suitable for in-class training.

This course is designed by Haward Technology to prepare Welding Inspectors for the American Welding Society (AWS) Examination, in order to certify them as "*AWS Certified Welding Inspector*". This course is a combination of the following three courses which jointly constitute this Certified Welding Inspector Exam Preparation course:-

1. *Fundamental Welding Inspection Preparation Course:*
   This course is designed as a preparation for the AWS CWI (QC-1) Exam, part A, Fundamental Welding Inspection Exam. The participant will learn how to take the exam and the basic fundamentals of welding inspection. Information for inspector training is emphasized in this dual goal course
2. *Practical Welding Inspection Preparation Course:*
   This course is designed as a preparation for the AWS CWI (QC-1) Exam, Part B, Practical Welding Inspection (hands-on) Exam. This course is a must for the nine-year renewal CWI. The participant will learn how to use the tools required for the exam, as well as the AWS Specifications Book
3. *API 1104 Preparation Course:*
   This course is designed as a preparation for the AWS CWI (QC-1) Part C Code Book Exam. The participant will learn how to use the code book to solve inspection problems

The participant will receive in-depth instruction pertaining to passing the AWS CWI (QC-1) exam, as well as insight into the intricacies students may expect to encounter in the working environment. This course is offered as both an in-house and an open enrollment class.

Additionally, quizzes are given at the end of each section; homework is handed out at the end of each class day, and is reviewed at the beginning of the following day, and a practice" exam is administered at the end of the course.

Course Objectives/Outcomes & Benefits for the Participants

Upon the successful completion of this course, each participant will be able to:-

- Prepare for the AWS welding inspector exam and have enough knowledge and skills to pass such exam in order to get the AWS Welding Inspector Certification
- Discuss the aspects of welding inspection, CWI and CWE tests as well as the skills, responsibilities and qualities of an effective inspector
- Carryout safe practices for welding inspectors as well as the method of metal joining and cutting processes
- Identify the weld joint geometry and welding symbols including the features, terminology and application
- Employ documentation governing weld inspection and qualification and describe the metal properties and destructive testing
- Distinguish the various metric practices for welding inspector
- Explain the welding metallurgy for the welding inspector, weld and base metal discontinuities and illustrate visual inspection and other NDE methods and symbols
- Recognize welding of pipelines and related facilities in accordance with API 1104
- Use tools properly for measuring and weld examination

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

The course is intended for inspection, piping and welding engineers who are seeking AWS CWI (QC-1) certification. Other engineers, managers and technical staffs who are dealing with welding and fabrication will also benefit.

AWS Certification

Delegates will be certified by AWS based on their exam scoring as per the following:-

CWI : Completion of Parts A, B and C with a minimum score of 72% in each part.
CAWI : Completion of Parts A, B and C with a minimum score of 60% in each part.
CWE : Completion of Parts A and B with a minimum score of 60% in each part.

Exam Eligibility & Structure

To qualify as a Certified Welding Inspector, you must pass a vision test and have a combination of qualifying education and work experience, with supporting documentation.

Your education and experience should match at least one of the combinations in any one of the grids below:-

MINIMUM EDUCATION	MINIMUM WORK EXPERIENCE
Bachelor or higher degree in welding engineering or welding technology – four (4) years maximum substitution	Minimum of one (1) year welding based work experience
Associate or higher degree in welding or non-welding related engineering technology, engineering, or a physical science – three (3) years maximum substitution	Minimum of two (2) years welding based work experience
Engineering/Technical courses that can be applied to Bachelor or higher degree in Welding – two (2) years maximum substitution	Minimum of three (3) years welding based work experience
Trade/Vocational courses – one (1) year maximum substitution for successfully completed courses	Minimum of four (4) years welding based work experience
High school diploma or approved high school equivalency diploma	Minimum of five (5) years welding based work experience
8th grade level of schooling	Minimum of nine (9) years welding based work experience
Less than 8th grade	Minimum of twelve (12) years welding based work experience

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

Training Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Exam Fees

US$ 2,030 per Delegate + **VAT**. This rate includes the Classroom Practical Exam conducted by Haward Technology and the Online Theoretical Exam organized by Prometric.

Required Codes & Standards

Listed below are the effective editions of the publications required for the current Welding Inspector Certification Examination. **Each participant must purchase these documents separately and have them available for use during the examination as their cost is not included in the course fees**:-

- **CODE SUBJECTS AVAILABLE AND CURRENT EXAM EDITIONS (applicants must provide own codebook for exam)**
  - AWS D1.1- Structural Steel Code: 2020 Edition
  - API 1104 - Pipelines 22nd Edition
  - AWS D1.2 - Structural Aluminum Code: 2014 Edition
  - AWS D1.5 - Bridge Welding Code: 2020 Edition (including Clause 12)
  - AWS D15.1 - Railroad: 2019 Edition
  - AWS D17.1 - Aerospace: 2017 w/ Amendment 1
  - ASME BPVC Sec IX (2019), Power (B31.1) (2018) and Process (B31.3) Piping (2018)
  - ISO/EN Standards Exam/Endorsement
  - Welder Performance Qualifier Endorsement
  - Welding Procedure Qualifier Endorsement
  - Magnetic Particle Testing (MT Dry Powder Yoke Method)
  - Penetrant Testing (PT Type II – Method C)

Note: The editions listed above apply to the English editions only. To verify the edition being used with language-assisted exams, please contact the AWS Certification department or the Agent.

- **Preparation Guides**
  - CWI Examination User Guide

- **Certification and Qualification Standards**
  - QC1: 2016-AMD1 – Specification for AWS Certification of Welding Inspectors
  - B5.1:2025 - Specification for the Qualification of Welding Inspectors

Annex A: Informative References

Document	Applicability
AWS A1.1, Metric Practice Guide for the Welding Industry, American Welding Society.	AWI, WI, SWI
AWS A2.4, Standard Symbols for Welding, Brazing, & Nondestructive Examination, American Welding Society.	AWI, WI, SWI
AWS A3.0M/A3.0, Standard Welding Terms & Definitions, American Welding Society.	AWI, WI, SWI
AWS B1.10M/B1.10, Guide for the Nondestructive Examination of Welds, American Welding Society.	AWI, WI, SWI
AWS B1.11M/B1.11, Guide for the Visual Inspection of Welds, American Welding Society.	AWI, WI, SWI
AWS B2.1/B2.1M, Specification for Welding Procedure & Performance Qualification, American Welding Society.	AWI, WI, SWI
AWS B4.0, Standard Methods for Mechanical Testing of Welds, American Welding Society.	AWI, WI, SWI
AWS B5.1, Specification for the Qualification of Welding Inspectors, American Welding Society.	AWI, WI, SWI
AWS QC1, Specification for AWS Certification of Welding Inspectors, American Welding Society.	AWI, WI, SWI
ANSI Z49.1, Safety in Welding, Cutting, & Allied Processes, American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2000, Certification Manual for Welding Inspectors, Miami: American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2015, Welding Inspection Handbook, Miami: *American Welding Society.*	AWI, WI, SWI

American Welding Society (AWS), 1987, Welding Handbook, Volume 1: Welding & Cutting Science & Technology, Miami: American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2004, Welding Handbook, Volume 2: Welding Processes, Part 1, Miami: American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2007, Welding Handbook, Volume 3: Welding Processes, Part 2, Miami: American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2010, Welding Handbook, Volume 4: Materials & Applications, Part 1, Miami: American Welding Society.	AWI, WI, SWI
American Welding Society (AWS), 2021, Welding Handbook, Volume 5: Materials & Applications, Part 2, Miami: American Welding Society.	AWI, WI, SWI
AWS WIT-T, Welding Inspection Technology, Miami: American Welding Society.	AWI, WI, SWI
Crawford, J. & K. Rodgers, 2000, The Practical Welding Engineer, Miami: American Welding Society.	SWI
ASNT SNT-TC-1A, Recommended Practice: Personnel Qualification & Certification in Nondestructive Testing, The American Society for Nondestructive Testing.	WI, SWI
ISO 9001, Quality Management Systems—Requirements, International Organization for Standardization.	SWI

Annex C: List of AWS Documents on Qualification and Certification

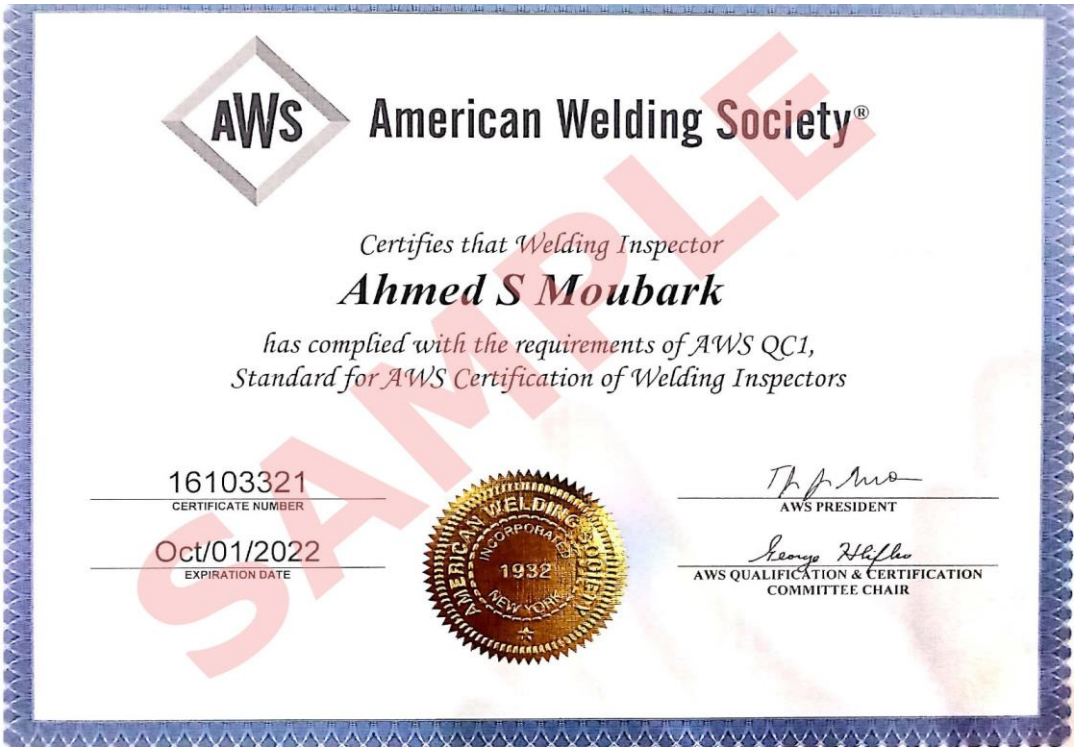
Qualification Designation	Title
B5.1	*Specification for the Qualification of Welding Inspectors*
B5.2	*Specification for the Training, Qualification, & Company Certification of Welding Inspector Specialists & Welding Inspector Assistants*
B5.4	*Specification for the Qualification of Welder Test Facilities*
B5.5	*Specification for the Qualification of Welding Educators*
B5.9	*Specification for the Qualification of Welding Supervisors*
B5.14	*Specification for the Qualification of Welding Sales Representatives*
B5.15	*Specification for the Qualification of Radiographic Interpreters*
B5.16	*Specification for the Qualification of Welding Engineers*
B5.17	*Specification for the Qualification of Welding Fabricators*

Certification Designation	Title
QC1	*Specification for AWS Certification of Welding Inspectors*
QC5	*AWS Standard for Certification of Welding Educators*
QC9	*Administrative Procedures for Alleged Violations of AWS Certification Programs*
QC13	*Specification for the Certification of Welding Supervisors*
QC14	*Specification for the Certification of Welding Sales Representatives*
QC15	*Specification for AWS Certification of Radiographic Interpreters*
QC17	*Specification for AWS Accreditation of Certified Welding Fabricators*
QC19	*Specification for AWS Certification of Robotic Arc Welding Personnel*
QC20	*Specification for AWS Certification of Resistance Welding Technicians*
QC47	*Specification for AWS Certification of Welders & Accreditation of Test Facilities*

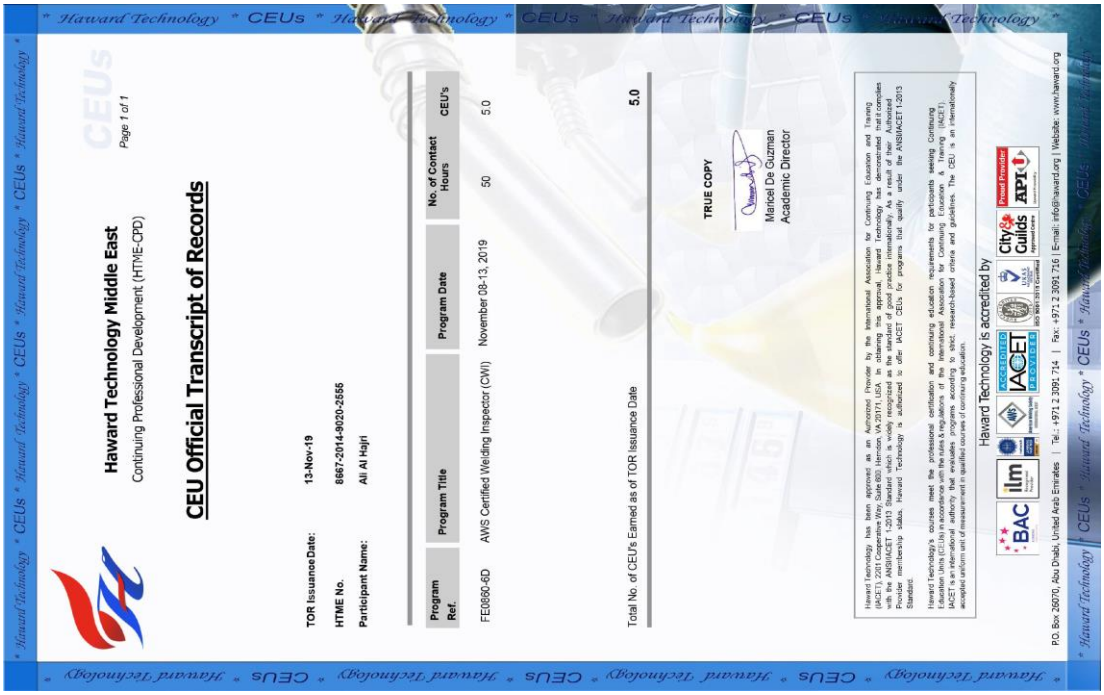
- **Additional Forms & Documents**
  - Official Exam Reference Guide

Course Certificate(s).

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years. Successful candidate will be certified as a *"Certified Welding Inspector (CWI)"*.



(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.



Certificate Accreditations

Haward's Certificates are accredited by the following international accreditation organizations:

- American Welding Society (AWS)

  Haward Technology is the **International Agent** of the **American Welding Society (AWS)** and the Authorized Provider of AWS international certification examinations outside the USA. Haward Technology exhibits compliance and adherence to **AWS Quality Control Standards** in the development, conduct and delivery of certification courses and exams for welding and inspection professionals on behalf of the American Welding Society.

  The American Welding Society's certification programs are internationally recognized and are used as a benchmark of quality workmanship and skills within the welding industry around the world.

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **4.0 CEUs** (Continuing Education Units) or **40 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Greg Kiser is a **Senior Inspection Engineer** with over **30 years** of extensive experience within the **Oil**, **Gas**, **Refinery**, **Petrochemical** and **Power** industries. His expertise includes **Metallurgy, Welding Technology Testing & NDT Procedures**, **Introduction to Welding Technology**, **Welding Problems**, **Welding Safety**, **Welding & Fabrication Program**, **Welding in Steam Systems**, **Welding & Machining**, **Welding Types and Applications**, **International Welding Codes**, **Pipelines**, **Piping**, **Tanks**, **Pressure Vessels**, **FFS**, **Boilers**, **Welding** Technology, **Corrosion** Technology, **Coating** Technology, Boiler Water & **Feed Water**, **Cathodic Protection**, **Heat Exchangers**, **Steam Turbines**, **Motors**, **Pumps**, **Evaporators**, **Electrical Generators**, **Ship Handling**, **Lifting Devices** as well as **Molten Steel** and **Aluminum Crucibles** using **Radiography**, **Ultrasonic**, **Dye Penetrant**, **Magnetic Particle**, **Visual**, **Vacuum Box** and other techniques. Further, he is an international expert in **API 653** (Tank Inspection Code), **API 510** (Pressure Vessel Inspection Code), **API 570** (Piping Inspection Code), **API 579-1/ASME FFS-1**, **ASME**, **NDT**, **ASNT**, **AWS**, **NACE** and **ISBI**.

Mr. Kiser is currently **Engineering Manager** of **South Pacific Petroleum Corporation** which is a **pipeline** and **tank construction** company wherein he performs inspections under **API**, **AWS**, **NACE**, **AWWA** and other international codes and standards. He also performs testing and welder qualification under **USGC** and **ABS** surveillance. Prior to this, he held numerous key positions for international companies within the **USA**, **Asia** and the **Middle East** as a **Project Manager**, **Welding Inspector**, **Pressure Vessel Senior Field Inspector**, **Pipeline and Tank Inspector**, **Boilers Officer**, **Chief Engineer**, **Special Projects Officer**, **Main Propulsion Assistant**, **Assistant Engineer** and a **Technical Instructor**.

Mr. Kiser has a **Bachelor** degree in **Marine Engineering** from the **United States Merchant Marine Academy** in **USA**. He is a **Certified API 653** Above Ground Storage Tank Inspector, **Certified API 510** Pressure Vessel Inspector, **Certified API 570** Piping Inspector, Certified Welding Inspector (**AWS-CWI**), **Certified Boiler Inspector**, **Certified NACE Coatings Inspector - Level 3**, **Certified ASNT Level III Inspector** for **UT**, **PT, MT, RT** and **VT** as well as a **Certified Magnetic Flux Leakage Inspector**.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met

Day 1: ***Sunday, 12th of July 2026***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0900	***Introduction*** *Aspects of Welding Inspection • Skills & Responsibilities of the Inspector • Aspects of the CWI & CWE Tests • Qualities of an Effective Inspector*
0900 – 1030	***Safe Practices for Welding Inspectors (Z 49.1)*** *General Aspects • Potential Hazards • Personal Protective Equipment • Safety Program & Management Support • Safety Training • Material Safety Data Sheets • Threshold Limit Value • Protective Screens • Fire Prevention • Hot Work Permits • Explosion Hazards • Fume Exposure Factors • Electrical Shock • Section Quiz • Safety Video*
1030 – 1045	*Break*
1045 – 1200	***Metal Joining & Cutting Processes*** *High Speed Welding Video • Common Features of Welding Processes • Basic Process Groups*
1200 – 1300	*Lunch*
1300 – 1400	***Metal Joining & Cutting Processes (cont'd)***
1400 – 1500	***Metal Joining & Cutting Processes (cont'd)***
1500 – 1515	*Break*
1515 – 1545	***Quiz***
1545 – 1630	***Weld Joint Geometry & Welding Symbols (A2.4)*** *Joint Arrangement • Joint Design • Joint Geometry • Edge Shapes • Weld Joint Features • Weld Terminology • Penetration Terminology • Weld Size Terminology • Weld Application*
1630 – 1730	***Distribute Homework & Recap***
1730	*End of Day One*

Day 2: ***Monday, 13th of July 2026***

0730 – 0830	***Homework Review***
0830 – 0930	***Weld Joint Geometry & Welding Symbols (A2.4) (cont'd)*** *Standard Welding Symbols*
0930 – 0945	*Break*
0945 – 1015	***Quiz***
1015 – 1230	***Documentation Governing Weld Inspection & Qualification*** *General Information • Document Types • Fabrication Drawings • Dimensions • Tolerances • Notes • Welding Details • Hold Points • Inspection Information • Types of Codes/Standards • Specifications • Control of Materials • Material Test Reports • Material Control Systems • Material Control Methods • Alloy Identification Systems • Qualification*
1230 – 1330	*Lunch*

1330 – 1530	***Metal Properties & Destructive Testing*** *Metal Properties • Strength • Behavior Under Load • Temperature Effects • Ductility • Directional Properties • Hardness • Indenter Types • Toughness • Stress Riser • Transition Temperature • Fatigue Strength • Endurance Limit • Chemical Properties • Elements in Steels • Dissolved Gases • Aluminum Alloys • Nickel Alloys • Copper Alloys*
1530 – 1545	*Break*
1545 – 1630	***Testing***
1630 – 1730	***Distribute Homework & Recap***
1730	*End of Day Two*

Day3: Tuesday, 14th of July 2026

0730 – 0830	***Homework Review***
0830 – 0930	***Metric Practices for Welding Inspection*** *Metric System*
0930 – 0945	*Break*
0945 – 1045	***Welding Metallurgy for The Welding Inspector***
1045 – 1115	***Quiz***
1115 – 1200	***Weld & Base Metal Discontinuities (B1.11)***
1200 – 1300	*Lunch*
1300 – 1400	***Weld & Base Metal Discontinuities (B1.11) (cont'd)***
1400 – 1500	***Visual Inspection & Other NDE Methods & Symbols (B1.10)***
1500 – 1515	*Break*
1515 – 1600	***Quiz***
1600 – 1730	***Distribute Homework & Recap***
1730	*End of Day Three*

Day 4: Wednesday, 15th of July 2026

0730 – 0800	***Homework Review***
0800 – 1000	***Two (2) Hour Timed Test (150 Questions)***
1000 – 1015	*Break*
1015 – 1115	***Discussion/Review***
1115 – 1230	***Welding of Pipelines & Related Facilities (API 1104)*** *General • Referenced Publications • Definition of Terms • Specifications • Qualification of Welding Procedures for Welds Containing Filler-Metal Additives • Qualification of Welders • Design & Preparation of a Joint for Production Welding*
1230 – 1330	*Lunch*
1330 – 1445	***Welding of Pipelines & Related Facilities (API 1104) (cont'd)*** *Inspection & Testing of Production Welds • Acceptance Standards for Nondestructive Testing • Repair & Removal of Defects • Alternative Acceptance Standards for Girth Welds • In-Service Welding*
1445 – 1500	*Break*
1500 – 1600	***Welding of Pipelines & Related Facilities (API 1104) (cont'd)*** *Procedures for Nondestructive Testing • Automatic Welding • Automatic Welding without Filler-Metal Additions*
1600 – 1630	***API 1104 Exercise***
1630 – 1730	***Distribute Homework & Recap***
1730	*End of Day Four*

Day 5:	***Thursday, 16th of July 2026***
0730 – 0930	***VIDEO (Use of Measuring Tools for The AWS CWI Hands-On Exam)***
0930 – 0945	*Break*
0945 – 1200	***Hands-On Workshop*** *Use of Tools for Measuring & Weld Examination*
1200 – 1300	*Lunch*
1300 – 1500	***Hands-On Workshop (cont'd)*** *Use of Tools for Measuring & Weld Examination (cont'd)*
1500 – 1515	*Break*
1515 – 1730	***Hands-On Workshop (cont'd)*** *Use of Tools for Measuring & Weld Examination (cont'd)*
1730	*End of Course*

Day 6:	***Friday, 17th of July 2026***
0930 - 1000	***Briefing & Review***
1000 – 1200	***AWS-CWI-Part-B Practical Examination***
1200	*End of Exam*

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward's Portal. Each Participant will be given a username and password to log in Haward's Portal for the Mock exam during the 60 days following the course completion. Each participant has only one trial for the MOCK exam within this 60-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.

Practical Sessions

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout welding inspection using the "AWS Tool Kit" and "Structural Weld Replica Kit", suitable for classroom training.

AWS Tool Kit

Structural Weld Replica Kit

Course Coordinator

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