COURSE OVERVIEW FE0700
API 570: Piping Inspector
(API Exam Preparation Training)

Course Title
API 570: Piping Inspector *(API Exam Preparation Training)*



Course Date/Venue
January 17-21, 2027/TBA Meeting Room, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Exam Window & Venue:
June 04-25, 2027/Abu Dhabi, Dubai, Al-Khobar, Jeddah, Kuwait, Amman, Beirut, Cairo, Manama, Muscat and Istanbul. Participant has the option to attend at any of the above cities

Exam Registration Closing Date:
March 25, 2027

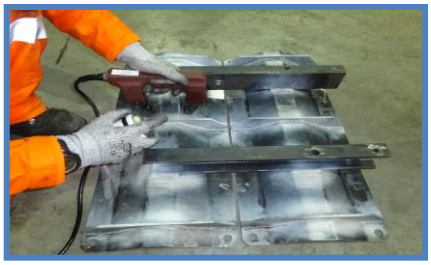
Course Duration/Credits
Five days (40 hours)/4.0 CEUs/40 PDHs

Course Reference
FE0700

Course Description







This practical and highly-interactive course includes real-life case studies where participants will be engaged in a series of interactive small groups and class workshops.

The piping system is one of the major assets of any process facility. Maintaining the integrity of the piping system is very critical for the safety and efficiency of the facility. Piping inspection is the first line of defense for maintaining the facility integrity and minimizing the maintenance cost.

API 570 Piping Inspection Code covers inspection, rating, repair, and alteration procedures for piping systems and their associated pressure relieving devices that have been placed in service. This inspection Code applies to all hydrocarbon and chemical process piping systems. The code specifies the in-service inspection and condition-monitoring program as well as re pair guidance that is needed to determine and maintain the on-going integrity of piping systems.

This course is designed to provide delegates with a comprehensive overview of the latest API 570 certification program. It will prepare the inspectors to pass the API 570 examination in order for them to be certified as API 570 Inspectors. Course participants will receive in-depth instruction on the applicable codes and standards (API and ASME). They will discuss case studies, and solve homework & quizzes and gain the required knowledge for this high-level certification.

The next API 570 exam and have enough knowledge and skills to pass such exam in order to get the API 570 certification; the inspection, repair, alteration and rerating of in-service piping systems; the API 570 body of knowledge, scope, references, definitions, owner and user inspection organization; the inspection and testing practices, frequency and extent of inspection, inspection data evaluation, analysis and recording, repairs, alteration and rerating of piping systems as well as inspection of buried piping.

The scope, piping components, reasons for inspection, inspecting for deterioration in piping, frequency and time of inspection, and employ safety precautions and preparatory work as well as inspection tools, inspection procedures, determination of retirement thickness and records; the various design conditions and criteria, pressure design of piping components, fluid service requirements for piping components, fluid service requirements for piping joints, piping flexibility, materials, fabrication, assembly and erection, inspection, examination and testing as well as demonstrate nondestructive test methods; the welding discontinuities and discuss ASME section IX WPS and PQR.

Quizzes are given at the end of each section; homework is handed out at the end of each class day, which consists of 30 questions per day and is reviewed at the beginning of the following day, and a “practice” exam is administered at the end of the course.
Haward Technology is proud of its **90% pass rate** on all our API sponsored courses.

Course Objectives/Outcomes & Benefits for the Participants

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

- Prepare for the next API 570 exam and have enough knowledge and skills to pass such exam in order to get the API 570 certification
- Perform the inspection, repair, alteration and rerating of in-service piping systems
- Review API 570 body of knowledge, scope, references, definitions, owner and user inspection organization
- Discuss inspection and testing practices, frequency and extent of inspection, inspection data evaluation, analysis and recording, repairs, alteration and rerating of piping systems as well as inspection of buried piping
- Identify the scope, piping components, reasons for inspection, inspecting for deterioration in piping, frequency and time of inspection, and employ safety precautions and preparatory work as well as inspection tools, inspection procedures, determination of retirement thickness and records
- Enumerate the various design conditions and criteria, pressure design of piping components, fluid service requirements for piping components, fluid service requirements for piping joints, piping flexibility, materials, fabrication, assembly and erection, inspection, examination and testing as well as demonstrate nondestructive test methods
- Carryout welding discontinuities and discuss ASME section IX WPS and PQR

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

This course prepares participants for the API 570 exam. It is designed for those who are involved in the inspection, repair, alteration and re-rating of in-service piping systems. This mainly includes inspectors and inspection engineers who are seeking API-570 certification. Other engineers, managers, mechanical design draftsmen or technical staff who are dealing with piping systems will definitely benefit from this course.

Exam Eligibility & Structure

Exam Candidates shall have the following minimum pre-requisites:-

Education	Years of Experience	Experience Required
BS or higher in engineering or technology or 3+ years of military service in a technical role (Dishonorable discharge disqualifies credit)	1 year	Supervision or performance of inspection activities as described in API 570
2-year degree or certificate in engineering or technology or 2 years of military service in a technical role (Dishonorable discharge disqualifies credit)	2 years	Design, construction, repair, operation, or inspection of in-service piping systems, of which one year must be in supervision or performance of inspection activities as described in API 570
High school diploma or equivalent	3 years	Design, construction, repair, operation, or inspection of in-service piping systems, of which one year must be in supervision or performance of inspection activities as described in API 570
No formal education	5 or more years	Design, construction, repair, operation, or inspection of in-service piping systems, of which one year must be in supervision or performance of inspection activities as described in API 570

Applicable Codes & Standards

Listed below are the effective editions of the publications required for this exam for the date(s) shown above. 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:-

- **API Standard 570**, *Piping Inspection Code: In-service Inspection, Rating, Repair and Alteration of Piping Systems,* **5th Edition, February 2024**

- **API Recommended Practice 571**, *Damage Mechanisms Affecting Fixed Equipment in the Refining Industry,* **3rd Edition**, **March 2020**

Section	2	Definitions
Par.	3.3	Amine Stress Corrosion Cracking
	3.8	Atmospheric Corrosion
	3.9	Boiler Water and Stream Condensate Corrosion
	3.14	Caustic Corrosion
	3.15	Caustic Stress Corrosion Cracking
	3.17	Chloride Stress Corrosion Cracking
	3.22	Corrosion Under Insulation
	3.27	Erosion/Erosion – Corrosion
	3.31	Galvanic Corrosion
	3.37	Hydrochloric Acid Corrosion
	3.43	Mechanical Fatigue (Including Vibration-induced Fatigue)
	3.45	Microbiologically Insfluenced Corrosion B16
	3.57	Soil Corrosion
	3.58	Sour Water Corrosion (Acidic)
	3.61	Sulfidation

- **API Recommended Practice 574**, *Inspection Practices for Piping System Components,* **5th Edition, February 2024, Addendum 1 (March 2025)**
- **API Recommended Practice 576**, *Inspection of Pressure-Relieving Devices,* **5th Edition, September 2024.** Sections 5, 6.1-6.5 and 7
- **API Recommended Practice 577**, *Welding Processes, Inspection and Metallurgy,* **3rd Edition, October 2020**
- **API Recommended Practice 578**, *Material Verification Program (MVP) for New and Existing Assets,* **4th Edition**, **February 2023**
- **American Society of Mechanical Engineers (ASME)**, *Boiler and Pressure Vessel Code,* **2023 Edition**
  - **Section V**, *Nondestructive Examination,* Articles 1, 2, 6, 7, 9, 10, and 23 *(Section SE-797 only)*
  - **Section IX**, *Qualification Standard for Welding, Brazing and Fusing Procedures; Welders; Brazers; and Welding, Brazing and Fusing Operators, (Welding only)*
- **American Society of Mechanical Engineers (ASME)**
  - **B16.5**, *Pipe Flanges and Flanged Fittings: NPS ½ Through NPS 24 Metric/Inch Standard,* **2020 Edition (Issued January 2021)**
  - **B31.3**, *Process Piping,* **2024 Edition (Issued December 2024)**

PCC-2, Repair of Pressure Equipment and Piping, 2022

ATTENTION: The examination will cover each referenced Article and its Appendices

Article 101: Introduction
Article 201: Butt-Welded Insert Plates in Pressure Components
Article 206: Full Encirclement Steel Reinforcing Sleeves for Piping
Article 209: Alternatives to Postweld Heat Treatment
Article 210: In-Service Welding on to Carbon Steel Pressure Components or Pipelines
Article 211: Weld Buildup, Weld Overlay, and Clad Restoration
Article 212: Fillet Welded Patches
Article 304: Flaw Excavation and Weld Repair
Article 305: Flange Repair and Conversion
Article 306: Mechanical Clamp Repair
Article 501: Pressure and Tightness of Piping and Equipment
Article 502: Nondestructive Examination in Lieu of Pressure Testing for Repairs and Alternations

API Exam Format

All API exams are organized online in one of the Prometric Examination centers.

The only document required is the students Photo ID. No other documents, books, standards, codes or publications whatsoever are allowed during the exam.

All applicable codes and standards will be available online in the exam station.

Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

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

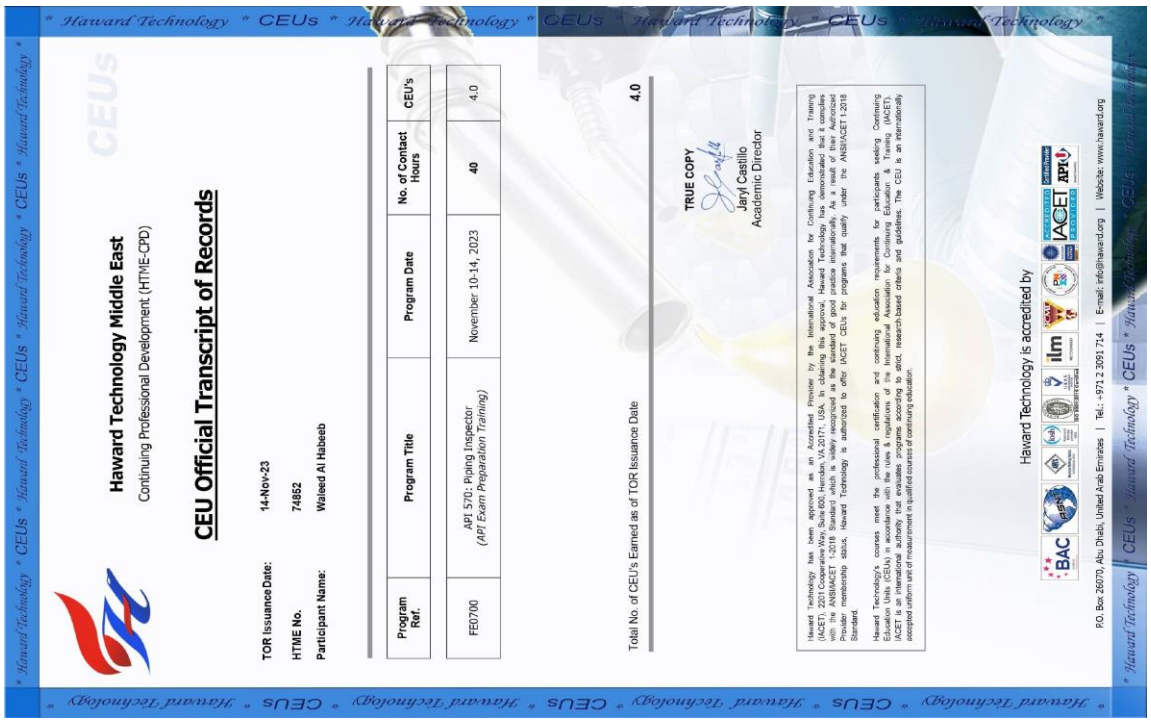
US$ 1,520 per Delegate + **VAT**.

API Certificate(s)

(1) API-570 certificate will be issued to participants who have successfully passed the API-570 examination.



(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:-

- 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.

Accommodation

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

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:



Ms. Maria Melkadze, MSc, BSc, is a **Senior Inspection Engineer** with Extensive Experience within the **Oil & Gas**, **Petrochemical** and **Refinery industries**. Her wide expertise includes **Pressure Vessel Inspection**, **ASME VIII Pressure Vessel** Design, Fabrication & Testing, **Pressure Vessel & Piping** Systems, **Boiler & Pressure Vessel** Materials, **Piping** Inspection, **Plant Utility Piping** System, **Piping** System Repair & Maintenance, **Piping System & Pipeline** Maintenance, **Process Piping Design & Mechanical Integrity**, Risk-Based-Inspection (**RBI**) & Fitness-for-Service (**FFS**), **Tank** Inspection, Repair, Alteration & Reconstruction, **Tank Farm & Tank Terminal** Safety & Integrity Management, **Aboveground Storage Tank** inspection, **Pressure Systems Integrity**, **Risk** Management & Production Efficiency, Defect Elimination, Engineering Processes & Work Flows Standardization and inspection management tools such as SAP, Maximo, ACET and IDMS.

During her career life, Ms. Melkadze has gained his practical and field experience through her various significant positions and dedication as the **Pressure Systems Integrity Engineer**, **Pressure Systems Integrity Engineer Challenger** and **Inspector** of **British Petroleum**.

Ms. Melkadze has a **Master's** degree in **Industrial Engineering** and **Technology** in **Specialization** of **Refrigerating Machinery & Technology** and a **Bachelor's** degree in **Industrial Engineering** and **Technology**. Further, she is a **Certified API 510 Pressure Vessel Inspector**, **Certified API 570 Piping Inspector**, **Certified API 653 Aboveground Storage Tank Inspector**, a **Certified Project Management Professional** (**PMI-PMP**), a **Professional Scrum Product Owner I** (**PSPO I**), a **Professional Scrum Master I** (**PSM I**), a **Certified Professional Agile Coach**, a **Certified Professional Agile Facilitator** and a **Certified Instructor/Trainer**. She is also a member of the **Institution of Mechanical Engineers** and a has delivered numerous trainings, courses, seminars and workshops internationally.

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, 17th of January 2027***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0900	***Introduction & Overview of Course Outline***
0900 – 0930	***Review of API 570 Body of Knowledge***
0930 – 1000	***API 570 - Sections 1 – Scope***
1000 – 1015	*Break*
1015 – 1045	***API 570 - Sections 2 - References***
1045 – 1230	***API 570 - Sections 3 - Definitions***
1230 – 1330	*Lunch*
1330 – 1430	***API 570 - Sections 4 - Owner/User Inspection Organization***
1430 – 1500	***API 570 - Sections 5 - Inspection & Testing Practices***
1500 – 1515	*Break*
1515 – 1545	***API 570 - Sections 6 - Frequency & Extent of Inspection***
1545 – 1645	***API 570 - Sections 7 - Inspection Data Evaluation, Analysis & Recording***
1645 – 1700	***API 570/Distribute Homework & Recap***
1700	*End of Day One*

Day 2: ***Monday, 18th of January 2027***

0730 – 0830	***Review of Day 1***
0830 – 0930	***API 570 -Sections 8 -Repairs, Alterations & Rerating of Piping Systems***
0930 – 0945	*Break*
0945 – 1045	***API 570 - Sections 9 - Inspection of Buried Piping***
1045 – 1130	***API 570 - Appendix A - Inspection Certification*** ***API 570 - Appendix C - Examples of Repairs*** ***API 570 - Appendix D - External Inspection Checklist for Process Piping***
1130 – 1200	***API RP 574 - Section 1 - Scope***
1200 – 1230	***API RP 574 - Section 3 - Definitions***
1230 – 1330	*Lunch*
1330 – 1400	***API RP 574 - Section 4 - Piping Components***
1400 – 1410	***API RP 574 - Section 5 - Reasons for Inspection***
1410 – 1420	***API RP 574 - Section 6 - Inspecting for Deterioration in Piping***
1420 – 1430	***API RP 574 - Section 7 - Frequency & Time of Inspection***
1430 – 1440	***API RP 574 - Section 8 - Safety Precautions & Preparatory Work***
1440 – 1450	***API RP 574 - Section 9 - Inspection Tools***
1450 – 1515	***API RP 574 - Section 10 - Inspection Procedures***
1515 – 1530	*Break*
1530 – 1540	***API RP 574 - Section 11 - Determination of Retirement Thickness***
1540 – 1550	***API RP 574 - Section 12 - Records***
1550 – 1600	***API RP 577 Terms & Definitions***
1600 – 1615	***API RP 577 Welding Processes***
1615 – 1625	***API RP 577 Weld Symbols***
1625 – 1635	***API RP 577 Electrode Identification***

1635 – 1650	***Administer Quiz 1***
1650 – 1700	***Review Quiz 1 & Recap***
1700	*End of Day Two*

Day 3: ***Tuesday, 19th of January 2027***

0730 – 0830	***Review of Day 2***
0830 – 0845	***ASME B31.3 - Chapter 1 - Scope & Definitions***
0845 – 0910	***ASME B31.3 - Chapter 2 (Part 1) - Design Conditions & Criteria***
0910 – 0940	***ASME B31.3 - Chapter 2 (Part 2) - Pressure Design of Piping Components***
0940 – 1000	***ASME B31.3 - Chapter 2 (Part 3) - Fluid Service Requirements for Piping Components***
1000 – 1015	*Break*
1015 – 1040	***ASME B31.3 - Chapter 2 (Part 4) - Fluid Service Requirements for Piping Joints***
1040 – 1100	***ASME B31.3 - Chapter 2 (Part 5) - Piping Flexibility***
1100 – 1130	***ASME B31.3 - Chapter 3 - Materials***
1130 – 1230	***ASME B31.3 - Chapter 5 - Fabrication, Assembly & Erection***
1230 – 1330	*Lunch*
1330 – 1430	***ASME B31.3 - Chapter 6 - Inspection, Examination & Testing***
1430 – 1445	*Break*
1445 – 1630	***ASME Section V - Nondestructive Test Methods***
1630 – 1645	***ASME Section V - Nondestructive Test Methods (cont'd)***
1645 – 1655	***ASME Section V - Nondestructive Test Methods (cont'd)***
1655 – 1700	***Review & Recap Discussion***
1700	*End of Day Three*

Day 4: ***Wednesday, 20th of January 2027***

0730 – 0830	***Review of Day 3***
0830 – 0900	***API RP 578 Material Verification Program***
0900 – 0930	***API 571 Damage Mechanisms***
0930 – 0945	*Break*
0945 – 1015	***ASME Section IX WPS***
1015 – 1045	***ASME Section IX PQR***
1045 – 1115	***ASME Section IX - Welder Certification***
1115 – 1200	***ASME B16.5 Flanges & Fittings***
1200 – 1230	***API 576 Inspection of Pressure Relieving Devices***
1230 – 1330	*Lunch*
1330 – 1445	***ASME PCC-2: Repair of Pressure Equipment & Piping*** *Scope, Organization & Intent ● Applicability & Limitations of Repair Methods Covered by ASME PCC-2 ● Choosing Correct Repair Technique for Given Defects ● Cost-effective Repairs*
1445 – 1500	*Break*
1500 – 1620	***ASME PCC-2: Repair of Pressure Equipment & Piping (cont'd)*** *Detailed Repair Methods & Inspection Techniques ● Inspection of Pressure Vessels, Rating, Repair & Alteration ● Remaining Life Calculation of Pressure Vessels*
1620 – 1650	***Administer Quiz 2***
1650 – 1700	***Review Quiz 2 & Recap***
1700	*End of Day Four*

Day 5:	***Thursday, 21st of January 2027***
0730 – 0830	***Review of Day 4***
0830 – 0930	***ASME PCC-2: Welded Repairs*** *Butt-Welded Insert Plates in Pressure Components ● Weld Overlay to Repair Internal Thinning ● Welded Leak Box Repair ● Full Encirclement Steel Reinforcing Sleeves for Piping*
0930 – 0945	*Break*
0945 - 1130	***ASME PCC-2: Welded Repairs (cont'd)*** *Fillet Welded Patches ● Alternatives to Post-Weld Heat Treatment ● In-Service Welding onto Carbon Steel Pressure Components or Pipelines ● Weld Build-up, Weld Overlay & Clad Restoration*
1130 - 1230	***ASME PCC-2: Mechanical Repairs (Non-Welding Repairs)*** *Flange Repair ● Mechanical Clamp Repair ● Inspection & Repair of Shell & Tube Heat Exchangers ● Examination & Testing*
1230 – 1330	*Lunch*
1330 - 1445	***ASME PCC-2: Mechanical Repairs (Non-Welding Repairs) (cont'd)*** *Pressure & Tightness Testing of Piping & Equipment ● Pneumatic Testing- Do's & Don'ts ● Non-destructive Examination in Lieu of Pressure Testing for Repairs & Alterations ● Relevance of ASME PCC-2 Standard with API 510 & API 570 Codes ● Documentation & Records of Repairs*
1445 - 1500	*Break*
1500 - 1615	***General Course Review of Topics***
1615 - 1630	***Course Conclusion***
1630 – 1645	***POST-TEST***
1645 – 1700	*Presentation of Course Certificates*
1700	*End of Course*

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

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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