# COURSE OVERVIEW ME0705
# Elevator Maintenance, Inspection & Testing

**Course Title**
Elevator Maintenance, Inspection & Testing


**Course Date/Venue**
Session 1: June 15-19, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: September 14-18, 2025/Al Khobar Meeting Room, Hilton Garden Inn, Al Khobar, KSA

**Course Reference**
ME0705

**Course Duration/Credits**
Five days/3.0 CEUs/30 PDHs

**Course Description**

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

An elevator is an extremely complex system with hundreds of parts that must be maintained. One function of maintenance is ensuring continued operation by preventing excessive wear and breakdown. In systems as complex as modern elevator systems, a more important aspect of maintenance is to ensure that the equipment continues to perform as it was originally designed. This can be accomplished only by qualified, trained technicians and engineers using the correct equipment and tools.

This course is designed to cover both maintenance and inspection activities that are normally contracted to an elevator maintenance or inspection provider and those that are normally performed by the owner/manager. Participants will learn about the safety code requirements for maintenance records including maintenance control programs and how to inspect for and identify common maintenance deficiencies.

The course material includes sample maintenance control programs for electric and hydraulic elevators, as well as escalators and moving walks that identify all safety code requirements for maintenance activities. The material also includes blank forms for performance evaluation, emergency operation monthly checks and escalator/moving walk start-up.

Safety is stressed throughout the course, with emphasis on identification and use of elevator safety features that are available for maintenance and inspection personnel. Participants are given exercises and testing after each subject to gain feedback on their understanding to ensure that they comprehend the subjects.

This course is beneficial to all elevator personnel. It focuses on elevator maintenance, inspection and tests techniques and is beneficial for new elevator inspectors and maintenance staff as well as the more experienced inspectors and maintenance staff that are interested in improving their inspection and maintenance skills and understanding of code requirements.

## Course Objectives

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

- Apply systematic methodology and techniques in elevator maintenance, inspection and testing
- Discuss the elevator applicable codes and standards that includes the safety codes for elevators and escalators
- Maintain, inspect and test the elevator safely
- Conduct electric elevator tests and hydraulic elevator tests
- Distinguish the acceptance and periodic tests of electric elevators
- Determine the hydraulic hoistway and pit including the relief valve setting, flexible pressure hose, pressure switch, speed-rated speed up and operating speed down, etc
- Discuss the prohibition of governor rope lubrication and rope retirement criteria
- Evaluate the code data plate, and identify the personnel hoists not covered by ASME A17.1
- Employ elevator preventive maintenance by following the minimum requirements, guidelines and periodic test charts for electric and hydraulic elevators

## 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 is intended for individuals who evaluate or administer elevator maintenance and inspection programs, elevator mechanics, managers and supervisors of elevator maintenance, architects and elevator engineers. It is essential for building owners/managers or persons that administer elevator maintenance and inspection contracts to assure that they are getting full return on maintenance expenditure and maximum safety.

## Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

## Course Accreditations

British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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.

- USA International Association for Continuing Education and Training (IACET)

Haward Technology is an Authorized Training Provider by the International Association) for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 1-2013 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 1-2013 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 Association 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 **3.0 CEUs** (Continuing Education Units) or **30 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. Karl Thanasis**, PEng, MSc, MBA, BSc, is **Senior Engineer** with over **45 years** of extensive industrial experience. His wide expertise includes Oil & Gas **Pipeline Optimization**, **Pipeline** Design & Construction, **Piping & Pipeline**, **Gas Pipe Line** Operation & Maintenance, **Pigging** Operations – Fundamental, **Pipeline Pigging** & Intelligent-Pig Survey, **Pigging Foundations**, Facilities & **Pipeline** Integrity Assessment Maintenance, Repair, **Shutdown**, **Turnaround & Outages**, **Maintenance & Reliability** Management, **Mechanical Maintenance** Planning, Scheduling & Work Control, Advanced Techniques in **Maintenance** Management, **Predictive & Preventive** Maintenance, **Maintenance & Operation Cost Reduction** Techniques, Reliability Centered Maintenance (**RCM**), **Machinery Failure** Analysis, **Rotating Equipment Reliability** Optimization & Continuous Improvement, **Material Cataloguing**, **Mechanical & Rotating Equipment** Troubleshooting & Maintenance, **Root Cause Analysis & Reliability** Improvement, **Condition** Monitoring, **Root Cause Failure Analysis** (RCFA), **Steam Generation**, **Gas Turbines**, **Combined Cycle Plants**, **Boilers**, **Process Fired Heaters**, Air Preheaters, Induced Draft Fans, All Heaters Piping Work, Refractory Casting, Heater Fabrication, Thermal & Fired Heater Design, **Heat Exchangers**, Heat Transfer, Coolers, **Power Plant** Performance, Efficiency & Optimization, **Storage Tank** Design & Fabrication, **Thermal Power Plant** Management, **Boiler & Steam** System Management, **Pump** Operation & Maintenance, **Chiller & Chiller Plant** Design & Installation, **Pressure Vessel**, **Safety Relief Valve** Sizing & Selection, **Valve** Disassembling & Repair, Pressure Relief Devices (**PSV**), **Hydraulic & Pneumatic** Maintenance, Advanced **Valve** Technology, **Pressure Vessel** Design & Fabrication, **Pumps**, Turbo-Generator, Turbine **Shaft Alignment**, **Lubrication**, Mechanical **Seals**, Packing, **Blowers**, **Bearing** Installation, **Couplings**, **Clutches** and **Gears**. Further, he is also versed in Water Meter Reading System (**MMR**), Fundamentals of **Water Utility Regulation**, **Water Network** Systems & Pumping Stations, Hydraulic **Modelling** for Water Network Design, **Water Chemistry**, **Wastewater Treatment** Technology, **Networking** System, **Water Network Design**, Industrial **Water Treatment** in Refineries & Petrochemical Plants, **Piping** System, Water Movement, Water Filtering, Mud Pumping, **Sludge Treatment** and **Drying**, **Aerobic Process** of **Water Treatment** that includes **Aeration**, **Sedimentation** and **Chlorination Tanks**. His strong background also includes **Design** and **Sizing** of all **Waste Water Treatment Plant Associated Equipment** such as **Sludge Pumps**, **Filters**, **Metering Pumps**, **Aerators** and **Sludge Decanters**.

Mr. Thanasis has acquired his thorough and practical experience as the **Project Manager**, **Plant Manager**, **Area Manager - Equipment Construction**, **Construction Superintendent**, **Project Engineer** and **Design Engineer**. His duties covered **Plant Preliminary Design**, **Plant Operation**, **Write-up** of **Capital Proposal**, **Investment Approval**, **Bid Evaluation**, **Technical Contract Write-up**, **Construction** and **Sub-contractor Follow up**, **Lab Analysis**, **Sludge Drying** and **Management** of **Sludge Odor** and **Removal**. He has worked in various companies worldwide in the **USA**, **Germany**, **England** and **Greece**.

Mr. Thanasis is a **Registered Professional Engineer** in the **USA** and **Greece** and has a **Master's** and **Bachelor's** degree in **Mechanical Engineering** with **Honours** from the **Purdue University** and **SIU** in **USA** respectively as well as an **MBA** from the **University of Phoenix** in **USA**. Further, he is a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management** (**ILM**) a **Certified Instructor/Trainer** and has delivered numerous trainings, courses, seminars, workshops and conferences worldwide.

## 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.

## Accommodation

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

## Course Fee

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

## 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***

| | |
|---|---|
| *0730 – 0800* | *Registration & Coffee* |
| *0800 – 0815* | *Welcome & Introduction* |
| *0815 – 0830* | ***PRE-TEST*** |
| *0830 – 0930* | ***Elevator Applicable Codes & Standards***<br>*ASME A17.1/CSA B44 Safety Code for Elevators and Escalators ● ASME A17.3 Safety Code for Existing Elevators and Escalators* |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Elevator Applicable Codes & Standards (cont'd)***<br>*The National Electrical Code ● ASME A17.7-2007/CSA B44.7-07 Performance Based Safety Code for Elevators and Escalators* |
| *1100 – 1230* | ***Elevator Maintenance***<br>*Scope of Preventive Maintenance ● Maintenance Personnel* |
| *1230 – 1245* | *Break* |
| *1245 – 1420* | ***Elevator Maintenance (cont'd)***<br>*Recordkeeping ● Safety* |
| *1420 – 1430* | ***Recap***<br>*Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow* |
| *1430* | *Lunch & End of Day One* |

**Day 2**

| | |
|---|---|
| 0730 – 0900 | ***Elevator Inspections***<br>*General* |
| 0900 – 0915 | *Break* |
| 0915 – 1100 | ***Elevator Inspections (cont'd)***<br>*Areas of Inspection* |
| 1100 – 1230 | ***Elevator Tests***<br>*Testing* |
| 1230 – 1245 | *Break* |
| 1245 – 1420 | ***Elevator Tests (cont'd)***<br>*Test Intervals* |
| 1420 – 1430 | ***Recap*** |
| 1430 | *Lunch & End of Day Two* |

**Day 3**

| | |
|---|---|
| 0730 – 0930 | ***Electric Elevator Tests***<br>*Category 1 Tests-Electric Elevators ● Category 5 Tests-Electric Elevators* |
| 0930 – 0945 | *Break* |
| 0945 – 1100 | ***Hydraulic Elevator Tests***<br>*Category 1 Tests-Hydraulic Elevators ● Category 3 Tests-Hydraulic Elevators ● Category 5 Tests-Hydraulic Elevators* |
| 1100 – 1215 | ***Acceptance and Periodic Tests of Electric Elevators***<br>*Car and Counterweight Governors ● Car and Counterweight Safeties ● Standby Power Operation ● Car and Counterweight Oil Buffers ● Brake* |
| 1215 – 1230 | *Break* |
| 1230 – 1420 | ***Acceptance and Periodic Tests of Electric Elevators (cont'd)***<br>*Terminal Stopping Devices ● Static Controlled Elevators ● Winding Drum Machine Slack Rope ● Standby Power ● Ascending Car and Unintended Motion* |
| 1420 – 1430 | ***Recap***<br>*Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow* |
| 1430 | *Lunch & End of Day Three* |

**Day 4**

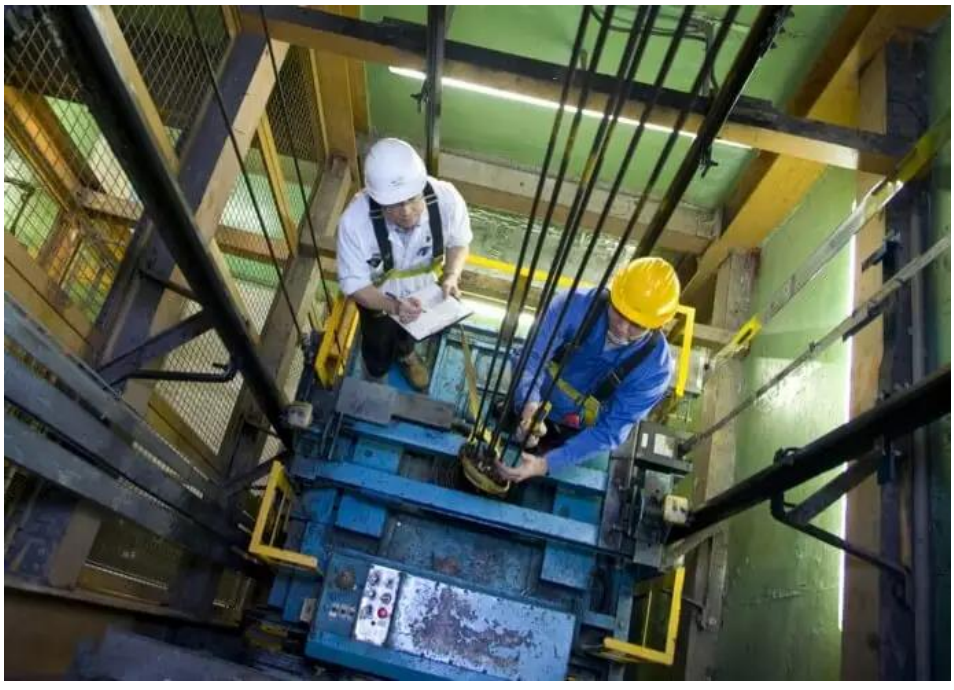
| | |
|---|---|
| 0730 – 0930 | ***Hydraulic Hoistway and Pit***<br>*Relief Valve Setting ● Flexible Pressure Hose ● Unexposed Cylinder and Piping ● Pressure Switch* |
| 0930 – 0945 | *Break* |
| 0945 – 1100 | ***Hydraulic Hoistway and Pit (cont'd)***<br>*Operating Pressure Verification ● Bottom Plunger Clearance ● Speed-Rated Speed Up and Operating Speed Down* |
| 1100 – 1215 | ***Prohibition of Governor Rope Lubrication*** |
| 1215 – 1230 | *Break* |
| 1230 – 1420 | ***Rope Retirement Criteria*** |
| 1420 – 1430 | ***Recap***<br>*Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow* |
| 1430 | *Lunch & End of Day Four* |

***Day 5***

| | |
|---|---|
| *0730 – 0930* | ***Code Data Plate*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Personnel Hoists Not Covered by ASME A17.1*** |
| *1100 – 1215* | ***Elevator Preventative Maintenance***<br>*Minimum Preventative Maintenance Requirements for Electric Traction Elevators ● Minimum Preventative Maintenance Requirements for Hydraulic Elevators* |
| *1215 – 1230* | *Break* |
| *1230 – 1345* | ***Elevator Preventative Maintenance (cont'd)***<br>*Guidelines for Full Service Maintenance Agreement for Elevators ● Electric Elevator Periodic Test Charts ● Hydraulic Elevator Periodic Test Charts* |
| *1345 – 1400* | ***Course Conclusion***<br>*Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course* |
| *1400 – 1415* | ***POST-TEST*** |
| *1415 – 1430* | *Presentation of Course Certificates* |
| *1430* | *Lunch & End of Course* |

## Practical Sessions

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



## Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org