



COURSE OVERVIEW RE0215 Maintenance Work Estimation Skills

Course Title

Maintenance Work Estimation Skills

Course Date/Venue

Session 1: June 16-20, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Session 2: November 23-27, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



Course Reference

RE0215



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

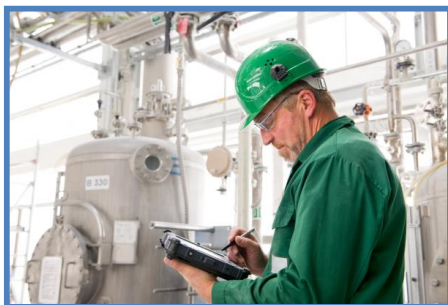
Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.



This course is designed to provide participants with a detailed and up-to-date overview of maintenance planning, estimating and scheduling. It covers the concepts, tools and techniques for estimating with focus upon using the ACE Team Benchmarking process; how planning and scheduling can be the cornerstone for a broader approach to reliability and maintenance improvement within their organization; managing and improving maintenance processes and craft productivity; and improving accuracy and quality of estimating.



During this interactive course, participants will learn how to develop more effective repair methods and standard job plans for benchmarking; develop and implement maintenance excellence index; validate results of maintenance investments; and improve the use of an existing or future CMMS.





Course Objectives

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

- Apply systematic techniques on maintenance planning, estimating and scheduling techniques
- Discuss concepts, tools and techniques for estimating with focus upon using the ACE Team Benchmarking process
- Explain how planning and scheduling can be the cornerstone for a broader approach to reliability and maintenance improvement within their organization
- Manage and improve maintenance processes and craft productivity
- Improve accuracy and quality of estimating
- Develop more effective repair methods and standard job plans for benchmarking
- Develop and implement a maintenance excellence index
- Validate results of maintenance investments
- Improve use of an existing or future CMMS

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 covers systematic techniques and methodologies on maintenance planning, estimating and scheduling for maintenance managers, plant managers, routine work managers, operations managers, technical maintenance managers, production managers, engineering managers, team leaders, engineers, planners, superintendents and supervisors.

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.

Course 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




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.


Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

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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.

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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 **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.

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:



Dr. Maged Elhefnawey, PhD, MSc, BSc, ASNT (RT-PT-MT & UT), SMRP-CMRP, is a **Senior Mechanical & Maintenance Engineer** with **extensive years** of experience within the **Power & Water Utilities** and other **Energy Sectors**. His expertise widely covers in the areas of **Maintenance Management Best Practices, Rotating Equipment Reliability Optimization, Maintenance Planning & Scheduling, Practical Machinery Vibration, Vibration Techniques, Effective Reliability Maintenance, Excellence in Maintenance & Reliability**

Management, Preventive & Predictive Maintenance, Machinery Failure Analysis (RCFA), Reliability Optimization & Continuous Improvement, Maintenance Planning, Scheduling & Work Control, Maintenance Management Strategy, Mechanical & Rotating Equipment Troubleshooting, Preventive Maintenance, Predictive Maintenance, Reliability Centered Maintenance (RCM), Condition Based Monitoring (CBM), FMEA, Rotating Equipment Selection, Operation, Maintenance, Inspection & Troubleshooting, Maintenance Management & Planning, Tank Farm Operations & Performance, Pumps, Motors, Turbo-expanders, Gears, Compressors & Turbines, Heat Exchanger, Variable Speed Drives, Seals, Valves, Dry Seal, Fired Heaters, Air Coolers, Crude Desalter, Process Vessels, Gas Transmission & Piping Distribution System (ASME B31.8), Cathodic Protection, Welding Technology, Material Selection Codes & Standards, Pipe Stress Analysis, Boiler Plant Operation, Mechanical Engineering, Piping, Pipelines, Lubrication Technology, Vibration Analysis, Power System Hydraulics, Security Detection Systems & Operation, Process Plant Equipment and Troubleshooting Process Operations.

During his career life, Dr. Maged has gained his expertise and thorough practical experience through several positions and dedication as the Acting **Department Head, Section Head Projects Engineer, Mechanical Engineer, Reliability Maintenance Engineer** and **Mechanical Supervisor** for various international companies and institutions such as the Gulf of Suez Petroleum Co. (GUPCO), British Petroleum (BP), BETROBEL, **KNPC**, SAIPEM Engineering, Natural Gas Pipeline, TRACTEBEL Engineering, Suez and TransGas Company to name a few. He also worked as **Mechanical/NDT Supervisor** wherein he was responsible for executing the scheduled inspections for welding, coating, pipeline, painting, hydrotest of pipeline & piping and fabrication and assembly.

Dr. Maged has **PhD** and **Master's** degree in **Mechanical Production Engineering** and a **Bachelor's** degree in **Mechanical Power Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified ASNT Level II Inspector** in Radiography Testing (**RT**), Liquid Penetrant Testing (**PT**), Magnetic Particle Testing (**MT**) and Ultrasonic Testing (**UT**), a **Certified Maintenance and Reliability Professional (CMRP)** from the Society of Maintenance & Reliability Professionals (**SMRP**), **published numerous academic papers** and delivered various trainings, courses, workshops, seminars and conferences worldwide.





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

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| 0730 - 0745 | Registration & Coffee |
| 0745 - 0800 | Welcome & Introduction |
| 0800 - 0815 | PRE-TEST |
| 0815 - 0930 | Building the Foundation Introduction/Overview of MPES & CMMS • Practical Exercise/Discussion: Define your top five priorities for improvement • Teams Assigned for Presentation on Day 4: What is our plan of action to improve your top 5 priorities • The Role of Effective Maintenance Planning, Estimating and Scheduling (MPES) • Today's Maintenance Challenges-Planning is Critical • Continuous Reliability Improvement: MPES is very important |
| 0930 - 1100 | Building the Foundation (cont'd) Profit Service & Service-Centered Maintenance: Effective MPES is the foundation • Selling the Significant Benefits of Planning and Scheduling • Ensuring your Maintenance Storeroom Supports the Planning Process • Impact of Materials Management on Planned Maintenance • Practical Exercise: How does your storeroom compare • How Planning and Scheduling Improves Craft Productivity • Practical Exercise: What is the value of craft productivity improvement at LGN? |
| 1100 - 1115 | Break |
| 1115 - 1300 | Building the Foundation (cont'd) Organizing and Managing a Maintenance Planning and Scheduling Process • Planner/Scheduler Selection and Key Roles Responsibilities • Planner/Scheduler Job Description Examples • Pre-requirements for an effective MPES Process • Backlog Management and Planning for Maintenance Excellence • Balancing Workload with Maintenance Resources • Practical Exercise: Developing Backlogs |
| 1300 - 1315 | Break |
| 1315 - 1420 | Planning & Estimating Key Steps for an Effective Planning Process • How Much Planning is Enough? • Informational Support-the Maintenance Technical Library • Work Breakdown Structures • The Planned Job Package • Work Screening, Job Scoping, Research and Detailed Planning |
| 1420 - 1430 | Recap |
| 1430 | Lunch & End of Day One |

Day 2

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| 0730 - 0900 | Planning & Estimating (cont'd) Detailed Planning of Materials, Tools and Equipment • Responsibilities of the Materials Management Process • Planner's Role in Project Type Work • Materials Management's Support to Planned Maintenance • Effective Estimating for Achieving Reliable Planning Times |
| 0900 - 0915 | Break |
| 0915 - 1100 | Planning & Estimating (cont'd) Different Types of Maintenance: "Operational vs. Project" • Different Types of Estimating Techniques • The ACE Team Benchmarking Process |



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| 1100 – 1230 | Planning & Estimating (cont'd) Practical Exercises: Developing job estimates and spread sheets • Brief Review of Estimating Software |
| 1230 – 1245 | Break |
| 1245 – 1420 | Effective Scheduling Coordination Required for Successful Scheduling • Scheduling Techniques • The Critical path Method/PERT • Preparing Schedules, Job Loading, and Schedules |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Two |

Day 3

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| 0730 – 0900 | Effective Scheduling (cont'd) Key Guidelines for Completing the Scheduling Process |
| 0900 – 0915 | Break |
| 0915 – 1100 | Effective Scheduling (cont'd) Measuring Performance of the Planning and Scheduling Function • Measuring the Performance of the Overall Maintenance Operations |
| 1100 – 1230 | Focus on Effective Scheduling Scheduling Multiple Projects • Dealing with Estimating Uncertainties (Estimating, Probability and Risk) • MPES Impact on Budgeting, Cost and Progress Control • The Earned Value Analysis Technique |
| 1230 – 1245 | Break |
| 1245 – 1420 | Focus on Effective Scheduling (cont'd) Linking Performance Measures to Action • Improving the Quality of MPES • Linking Planning and Scheduling to Craft Productivity • Conclusion and Final Review |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Three |

Day 4

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| 0730 – 0900 | Maximizing Your CMMS Investment Introduction and Course Objectives • CMMS: A Maintenance Business System for Profit and Customer-Centered Results |
| 0900 – 0915 | Break |
| 0915 – 1100 | Maximizing Your CMMS Investment (cont'd) How to Improve Operations Culture for CMMS Acceptance • Return on CMMS: Show me the money and improved customer service! |
| 1100 – 1230 | Maximizing Your CMMS Investment (cont'd) CMMS Success Stories and Case Studies • Practical Exercise: Review of Participant's CMMS Benchmarking System Results |
| 1230 – 1245 | Break |
| 1245 – 1420 | Maximizing Your CMMS Investment (cont'd) Improving Existing CMMS Databases • Practical Exercise: Review scoreboard, results and define priority of best practice needs |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Four |

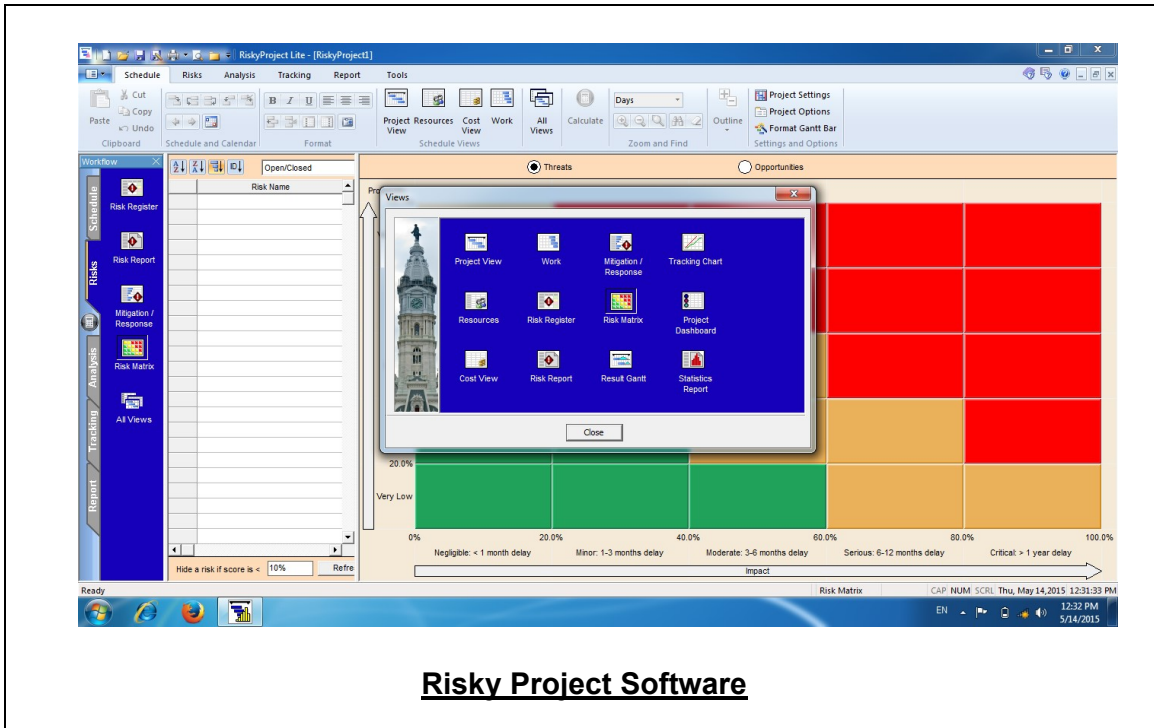
Day 5

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| 0730 – 0900 | Measuring Results for Effective Planning & Scheduling <i>How CMMS Can Improve</i> |
| 0900 – 0915 | <i>Break</i> |
| 0915 – 1045 | Measuring Results for Effective Planning & Scheduling (cont'd) <i>Working Smarter so CMMS Works for You • CMMS Functionality Evaluation: Determining the things your CMMS need to do</i> |
| 1045 – 1200 | Measuring Results for Effective Planning & Scheduling (cont'd) <i>Practical Exercise: Developing a plan of action to increase value of your CMMS • Achieving and Validating Results with Your Maintenance Excellence Index</i> |
| 1200 – 1215 | <i>Break</i> |
| 1215 – 1330 | Measuring Results for Effective Planning & Scheduling (cont'd) <i>Continuous Reliability Improvement: Going Well Beyond TPM & RCM to Improve All Six Maintenance Resources • Team Presentations: Our Plan of Action to Improve Our Top 5 Areas for Improvement</i> |
| 1330 – 1345 | <i>Course Summary</i> |
| 1345 – 1400 | Course Conclusion |
| 1400 – 1415 | POST-TEST |
| 1415 – 1430 | <i>Presentation of Certificates</i> |
| 1430 | <i>Lunch & End of Course</i> |

Simulator (Hands-on 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 various exercises using the “MS Project” and “Risky Project Software”.





Course Coordinator

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