

# **COURSE OVERVIEW RE0225 Certified Maintenance Planner (CMP) Professional Maintenance Planner**

(Accredited by ILM)

## **Course Title**

Certified Maintenance Planner (CMP): Professional Maintenance Planner (Accredited by ILM)

#### Course Date/Venue

December 01-05, 2024/Tamra Meeting Room, Al Bandar Rotana, Dubai Creek, Dubai, UAE

## **Course Reference**

RE0225

### Course Duration/Credits

Five days/3.0 CEUs/30 PDHs





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

This course is designed to provide participants with a detailed up-to-date overview Certified and Maintenance Planner (CMP). It covers maintenance planning and integrated maintenance production management partnership; the planning, coordination and scheduling to management and operations; the good maintenance practices and the responsible supervisor or team leader; the six planning and scheduling principle; and the wrench time, actual hours to plan estimate, planning variance index and enhancing planner productivity.

During this interactive course, participants will learn the backlog management, existing staffing processes and preventive/predictive maintenance inspections; the steady state backlog relief. deferred maintenance, capital program requirements and other considerations for staffing; the process (micro-planning) and detailed planning process-materials, tools and equipment; the work measurement, analytical estimating, scheduling maintenance work and job execution; and the job close-out and follow-up, managing planning, direct and indirect measure of planning effectiveness and project planning and management.

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#### **Course Objectives**

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

- Get certified as a "Certified Maintenance Planner"
- Discuss maintenance planning and integrated maintenance production management partnership
- Explain planning, coordination and scheduling to management and operations as well as identify work sampling, typical maintenance worker's day and symptoms of ineffective job planning
- Carryout good maintenance practices and identify the responsible supervisor or team
- Discuss the six planning principles and scheduling principles
- Recognize wrench time and the actual hours to plan estimate
- Explain planning variance index and enhance planner productivity
- Discuss backlog management covering ready backlog and planned backlog as well as review checklist for backlog integrity and develop work programs and backlog weeks trend chart
- Apply existing staffing processes and preventive/predictive maintenance inspections
- Explain steady state backlog relief, deferred maintenance, capital program requirements and other considerations for staffing
- Illustrate planning process (micro-planning) including planning process-screening, scoping, research and detailed planning
- Discuss detailed planning process-materials, tools and equipment
- Employ work measurement, analytical estimating, scheduling maintenance work and job execution
- Carryout job close-out and follow-up, managing planning, direct and indirect measure of planning effectiveness and project planning and management

#### 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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a Tablet PC.

#### Who Should Attend

This course covers systematic techniques in maintenance planning, scheduling and work control to assist maintenance team responsible for delivering maximum reliability and availability of equipment at the lowest possible cost. It is intended for plant maintenance engineers, planning engineers, maintenance planners and maintenance coordinators.

To maximize the benefits of the course, delegates should be prepared to actively participate in the course and bring examples of standard work plans, a list of plant performance metrics, the work priority system in-place, and any other planning or scheduling material they would like to review and discuss.























#### **Course Certificate(s)**

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. Successful candidate will be certified as a "Certified Maintenance Planner". Certificates are valid for 5 years.

#### Recertification is FOC for a Lifetime.

## Sample of Certificates

The following are samples of the certificates that will be awarded to course participants: -



































(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.



(3) ILM (City & Guilds Group) Certificates will be issued to participants who have successfully completed the course and passed the exam at the end of the course.





























#### **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations: -



#### ILM (City & Guilds Group)

Haward Technology has been awarded the ILM Recognised status under the City & Guilds Group Business. The ILM stands for excellence in leadership and management qualifications design, development and delivery under the City & Guilds of London Institute as the award-giving body for these qualifications. ILM recognises and approved the programmes of training providers and academic institutions that deliver quality-assured training and accredited qualifications. As an Approved Provider of ILM Recognised programmes, Haward Technology meets the quality assurance criteria of the ILM to deliver application-based leadership and management programs that meet international standards and professional benchmarks.



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.



## **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.























#### **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. Andrew Ladwig is a Senior Process & Mechanical Engineer with over 25 years of extensive experience within the Oil & Gas, Refinery, Petrochemical & Power industries. His expertise widely covers in the areas of Ammonia Manufacturing & Process Troubleshooting, Distillation Towers, Crude Oil Distillation, Fundamentals of Distillation for Engineers, Distillation Operation and Troubleshooting, Advanced Distillation Troubleshooting, Distillation Technology, Vacuum Distillation, Ammonia Storage & Loading Systems, Ammonia Plant Operation, Troubleshooting & Optimization, Ammonia Recovery, Ammonia Plant Safety, Hazard of Ammonia Handling, Storage & Shipping, Operational Excellence in Ammonia Plants, Fertilizer Storage Management (Ammonia &

Urea), Fertilizer Manufacturing Process Technology, Sulphur Recovery, Phenol Recovery & Extraction, Wax Sweating & Blending, Petrochemical & Fertilizer Plants, Nitrogen Fertilizer Production, Petroleum Industry Process Engineering, Refining Process & Petroleum Products, Refinery Planning & Economics, Safe Refinery Operations, Hydrotreating & Hydro-processing, Separators in Oil & Gas Industry, Gas Testing & Energy Isolations, Gas Liquor Separation, Industrial Liquid Mixing, Wax Bleachers, Extractors, Fractionation, Operation & Control of Distillation, Process of Crude ATM & Vacuum Distillation Unit, Water Purification, Water Transport & Distribution, Steam & Electricity, Flame Arrestors, Coal Processing, Environmental Emission Control, R&D of Wax Blending, Wax Molding/Slabbing, Industrial Drying, Principles, Selection & Design, Certified Process Plant Operations, Control & Troubleshooting, Operator Responsibilities, Storage Tanks Operations & Measurements, Tank Design, Construction, Inspection & Maintenance, Atmospheric Tanks, Process Plant Troubleshooting & Engineering Problem Solving, Process Plant Performance, Efficiency & Optimization, Continuous Improvement & Benchmarking, Process Troubleshooting Techniques, Oil & Gas Operation/Introduction to Surface Facilities, Pressure Vessel Operation, Process Equipment Performance & Troubleshooting, Plant Startup & Shutdown, Startup & Shutdown the Plant While Handling Abnormal Conditions, Flare & Relief System, Process Gas Plant Start-up, Commissioning & Problem Solving, Process Liquid and Process Handling & Measuring Equipment. Further, he is also well-versed in Compressors & Turbines Operation, Maintenance & Troubleshooting, Heat Exchanger Overhaul & Testing Techniques, Balancing of Rotating Machinery (BRM), Pipe Stress Analysis, Valves & Actuators Technology, Inspect & Maintain Safeguarding Vent & Relief System, Certified Inspectors for Vehicle & Equipment, Optimizing Equipment Maintenance & Replacement Decisions, Certified Maintenance Planner (CMP), Certified Planning and Scheduling Professional (AACE-PSP), Material Cataloguing, Specifications, Handling & Storage, Steam Trap Design, Operation, Maintenance & Troubleshooting, Steam Trapping & Control, Column, Pump Technology, Pump Selection & Installation, Centrifugal Pumps Troubleshooting, Pumps Design, Selection & Operation, Pump & Exchangers, Troubleshooting & Design, Rotating Equipment Operation & Troubleshooting, Control & ESD System, Detailed Engineering Drawings, Codes & Standards, Budget Preparation, Allocation & Cost Control, Root Cause Analysis (RCA), Production Optimization, Permit to Work (PTW), Project Engineering, Data Analysis, Process Hazard Analysis (PHA), HAZOP Study, Sampling & Analysis, Training Analysis, Job Analysis Techniques, Storage & Handling of Toxic Chemicals & Hazardous Materials, Hazardous Material Classification & Storage/Disposal, Dangerous Goods, Environmental Management System (EMS), Supply Chain, Purchasing, Procurement, Logistics Management & Transport & Warehousing & Inventory, Risk Monitoring Authorized Gas Tester (AGT), Confined Space Entry (CSE), Personal Protective Equipment (PPE), Fire & Gas, First Aid and Occupational Health & Safety.

During his career life, Mr. Ladwig has gained his practical experience through his various significant positions and dedication as the Mechanical Engineer, Project Engineer, Reliability & Maintenance Engineer, Maintenance Support Engineer, Process Engineer, HSE Supervisor, Warehouse Manager, Quality Manager, Business Analyst, Senior Process Controller, Process Controller, Safety Officer, Mechanical Technician, Senior Lecturer and Senior Consultant/Trainer for various companies such as the Sasol Ltd., Sasol Wax, Sasol Synfuels, just to name a few.

Mr. Ladwig has a **Bachelor's** degree in **Chemical Engineering** and a **Diploma** in **Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) and has delivered various trainings, workshops, seminars, courses and conferences internationally.





















#### **Training Methodology**

All our Courses are including Hands-on Practical Sessions using equipment, Stateof-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.

#### **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:

Sunday, 01th of December 2024 Day 1.

Day I.	Sunday, or or becember 2024
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Introduction to Maintenance Planning
	Integrated Maintenance & Production Management Partnership • Definitions •
	Why Plan, Coordinate & Schedule Maintenance Jobs? • Objectives of Work
	Preparation • Prerequisites • Understanding the Nature of Maintenance
	Activities & Organizing Accordingly • Organization by Work Type
0930 - 0945	Break
	Selling Planning, Coordination & Scheduling to Management &
	Operations
0945 - 1045	Selling Management • Work Sampling • Typical Maintenance Worker's Day –
	With & Without Planning & Scheduling • Symptoms of Ineffective Job Planning
	• Convey the Many Benefits that Accrue to Each Stakeholder
1045 - 1145	Where Planning Fits into Good Maintenance Practices
	Should Work Preparation be a Separate and Distinct Function? • The Assigned
	Craftsman • The Responsible Supervisor or Team Leader • The Proven Answer •
	Channels of Coordination and Communication • Working Liaisons •
	Maintenance Liaisons • Should Planning be Separate from Scheduling? •
	Clarification of Roles • Relationship with other Functions
1145 – 1200	Break























1200 – 1300	Planning Principles Six Principles • The Planning Vision; The Mission • Planning Principle 1: Separate Department • Principle 2: Focus on Future Work • Principle 3: Component Level Files • Principle 4: Estimates Based on Planner Expertise • Principle 5: Recognize the Skill of the Crafts • Principle 6: Measure Performance with Schedule Compliance
1300 – 1420	Scheduling Principles Why Maintenance does not Assign Enough Work • Advance Scheduling in an Allocation • Principle 1: Plan for Lowest Required Skill Level (Prerequisites of Scheduling) • Principle 2: Schedules & Job Priorities are Important (Prerequisites of Scheduling) • Principle 3: Schedule from Forecast of Highest Skills Available (Advance Scheduling Process) • Principle 4: Schedule for Every Work Hour Available • Principle 4 Brings the Previous Scheduling Principles Together • Principle 5: Crew Leader Handles Current Day's Work • Principle 6: Measure Performance with Schedule Compliance
1420 - 1430	Recap 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. Monday, 02th of December 2024

Day 2:	Monday, 02 <sup>th</sup> of December 2024
0730 - 0930	Wrench Time
	Definition • Objectives • Formula • Qualifications • Ample Calculation • Observations • Management of Planners
0930 - 0945	Break
	Actual Hours to Planning Estimate
0045 1150	Definition • Objectives • Formula • Component Definitions • Actual Work
0945 – 1150	Order Hours • Planned Work Order Hours • Qualifications • Sample
	Calculation • Best in Class Target Value
	Planning Variance Index
1150 – 1215	Definition • Objectives • Formula • Component Definitions • Sample
	Calculation
1215 - 1230	Break
	Planner Productivity
1230 – 1330	Definition • Objectives • Formula • Sample Calculation • Sample #2 Using
	Job Plans
1330 - 1420	Backlog Management: Ready Backlog
	Definition • Objectives • Formula • Component Definition • Sample
	Calculation • Best in Class Target Value: 2 to 4 Weeks
1420 - 1430	Recap
	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 Two





















Day 3: Tuesday, 03 <sup>th</sup> of De	ecember 2024
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Day 3:	ruesday, 03" or December 2024
0730 - 0930	Backlog Management: Planned Backlog
	Definition • Objectives • Formula • Component Definitions • Ready Work •
	Sample Calculation • Job Status • Checklist for Backlog Integrity •
	Development of Work Programs • A Weekly Example of a Work Program •
	Backlog Weeks Trend Chart
0930 - 0945	Break
	Sizing the Maintenance Staff
	Existing Staffing Processes • Preventive/Predictive Maintenance Inspections •
0945 - 1045	Steady State Backlog Relief • Deferred Maintenance • Capital Program
	Requirements • Summary of Requirements • Other Considerations for Staffing
	Another Approach to the Staffing Question
1045 - 1145	The Planning Process (Micro-Planning)
1045 - 1145	Steps of the Planning Process • The Planned Job Package
1145 – 1200	Break
	The Planning Process-Screening, Scoping, Research & Detailed Planning
1200 - 1420	Screening of Work Requests • Job Assessment & Scoping Check-list • Dealing
	with Scope Creep • Job Research • Job Preparation • Feedback on the Plan • Job
	Planning Survey • Coordination of Equipment Access, Permitting, Safety &
	Statutory Permission
1420 - 1430	Recap
	<i>Using this Course Overview, the Instructor(s) will Brief Participants about the</i>
	Topics that were Discussed Today and Advise Them of the Topics to be
	Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4:	Wednesday, 04th of December 2024
0730 - 0930	Detailed Planning Process-Materials, Tools & Equipment
	Planner/Scheduler Responsibilities to the Material Management Process •
	Material Related Steps in the Planning of Specific Jobs are Summarized • The
	Planner's Role in Rebuilding • Controlling the Maintenance Storeroom with
	Statistical Inventory Control • JIT Versus SIC
0930 - 0945	Break
	Work Measurement
0945 - 1045	Adjusted Averages • Analytical Estimates • Job Slotting & Labor Libraries •
	Universal Maintenance Standards • Building an Estimate • Job Creep
	Analytical Estimating
1045 1145	Common Job Sequence • Travel-Time Table • Miscellaneous Provision Table •
1045–1145	The Labour Library • Development of Slotting Tables • Slotting Table
	Cataloguing • Job Estimating Worksheet • Coordination with Operations
1145 – 1200	Break
1200 – 1420	Scheduling Maintenance Work
	The Weekly Expectation • Scheduling Techniques • Instruction for Preparing
	Schedules • Completing the Scheduling Process
1420 - 1430	Recap
	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:	Thursday, 05 <sup>th</sup> of December 2024
0730 - 0930	Job Execution
	Three Important Functions • Daily Schedule Adjustment • Planner Support of
	Job Execution • The Morning Meeting
0930 - 0945	Break
	Job Close Out & Follow Up
0945 – 1045	Schedule Compliance • Reasons for Non-Compliance • Reason for Schedule
0943 - 1043	Non-Compliance • Calculation of Schedule Compliance • Sample Calculation •
	Supplementary Metrics
	Planner & Scheduler Metrics
1045 - 1215	Managing Planning • Direct Measure of Planning Effectiveness • Indirect
1045 - 1215	Measures of Planning Effectiveness • The Follow-Up Critique • Activity
	Sampling • Using CMMS to Aid Planning and Scheduling
1215 - 1230	Break
	Planning & Management of Projects
	Project Management Process • Phase One – Project Definition • Phase Two –
1230 - 1300	Preliminary Engineering • Phase Three – Justification and Funding • Phase
1230 - 1300	Four - Detailed project Planning • Phase Five - Project Execution • Phase Six
	– Project Completion and Close-Out • Phase Seven – Project Review (6
	Months After Completion)
	Course Conclusion
1300 – 1315	Using this Course Overview, the Instructor(s) will Brief Participants about the
	Course Topics that were Covered During the Course
1315 – 1415	COMPETENCY EXAM
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

# **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 "Mindview Software".



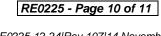




















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