

COURSE OVERVIEW LM0128

Material Handling, Control & Spare Parts Movements

Course Title

Material Handling, Control & Spare Parts Movements

Course Date/Venue

January 19-23, 2025/Meeting Plus 2, City Centre Rotana Doha, Doha, Qatar

Course Reference

LM0128

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 on Material Handling, Control & Spare Parts Movements. It covers the importance of material handling systems in the petroleum industry; the types, key components and functions of material handling systems; the principles of material handling including material handling equipment and warehouse management systems (WMS); and the inventory management techniques, material flow and layout planning and spare parts management.



Further, the course will also discuss the proper classification and coding of spare parts; the demand forecasting, procurement strategies and inventory control techniques; the lifecycle management of spare parts covering lifecycle stages, obsolescence management and disposal and recycling practices; the automation in material handling as well as the material handling in hazardous environments; the principles of lean management, lean techniques and measuring performance and improvements; and the technology in material handling covering RFID, barcode systems, IoT applications and data analytics.

During this interactive course, participants will learn the energy efficiency and quality control in material handling; the basic concepts, components and types of control systems in material handling; the automated storage and retrieval systems (AS/RS), tracking and monitoring systems and warehouse safety and compliance; and the transport and logistics management, spare parts logistics and evaluation of material handling process.

Course Objectives

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

- Apply and gain in-depth knowledge on material handling, control and spare parts movements
- Discuss the importance of material handling systems in the petroleum industry
- Identify the types, key components and functions of material handling systems
- Recognize the principles of material handling including material handling equipment and warehouse management systems (WMS)
- Carryout inventory management techniques, material flow and layout planning and spare parts management
- Employ proper classification and coding of spare parts as well as demand forecasting, procurement strategies and inventory control techniques
- Determine the lifecycle management of spare parts covering lifecycle stages, obsolescence management and disposal and recycling practices
- Apply automation in material handling as well as the material handling in hazardous environments
- Discuss the principles of lean management, implement lean techniques and measure performance and improvements
- Use technology in material handling covering RFID, barcode systems, IoT applications and data analytics
- Carryout energy efficiency and quality control in material handling
- Identify the basic concepts, components and types of control systems in material handling
- Explain automated storage and retrieval systems (AS/RS), tracking and monitoring systems and warehouse safety and compliance
- Employ transport and logistics management, spare parts logistics and evaluation of material handling process

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 provides an overview of all significant aspects and considerations of material handling, control and spare parts movements for warehouse managers, logistics managers, supply chain managers, maintenance managers, operations managers, project managers, engineering managers, procurement specialists, inventory controllers, technical support staff and consultants.

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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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.

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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.

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. Pan Kidis, MBA, BSc, is a Senior Logistics & Management Consultant with over 30 years of extensive experience in Logistics & Transportation Planning Methods, Forecasting Logistics Demands, Visual Network Model, Logistics Operations, Strategic Transport Planning, Transport System, Fleet Planning, Routing & Scheduling, Transport Cost Concepts & Elements, Costing Vehicles & Trips, Tariff Fixing, Supply Chain & Operations Management, Logistics & Production Planning, Cost Reduction Techniques, Inventory Management, Business Analysis, Risk Management, Production Management, Warehouse Management, Production Planning, Material Requirement Planning, Budgeting, Production & Shop Floor Scheduling, Cost Analysis, Database Design & Implementation, Business Administration, Production Data Acquisition & Analysis, Industrial Logistics, Process Improvement, Team Leadership & Training, Textile Manufacturing, Staff Reduction, Warehouse and Shipping. Further, he is also well-versed in Cash Flow Management, Decision Making Techniques, Production Planning & Scheduling, Production & Product Inventory Control, Inventory Analysis Tools, Stock Management Techniques, Material Handling, Process Improvement & Equipment Selection, Costing & Budgeting, Wastewater Treatment Plant Monitoring & Control, Volume Tank Measurements, Data Acquisition and Energy Conservation. He is currently the Business Analyst of Diasfalis Ltd. wherein he is responsible in the design of the proposed business model and develop and evaluate new applications.

Mr. Kidis had occupied several significant positions as the **Supply Chain Manager, Production Planning & Logistics Manager, Purchasing Office Manager, Project Manager, Assistant Dyeing Manager, Production Supervisor, Production Coordinator** and Design & Analysis Intern for various international companies such as the Hellenic Fabrics, **AKZO Chemicals Ltd.** and **EKO Refinery** and Greek Navy Force.

Mr. Kidis has a **Master** degree in **Business Administration** from the **University of Kent, UK** and a **Bachelor** degree in **Chemical Engineering** from the **Aristotle University of Thessaloniki, Greece**. Further, he is a **Certified Instructor/Trainer** and has delivered numerous trainings, courses, workshops, seminars and conferences internationally.

Course Fee

US\$ 6,000 per Delegate. 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.

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 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, 19th of January 2025

0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	Overview of Material Handling Systems Definition and Importance in the Petroleum Industry • Types of Material Handling Systems • Key Components and Their Functions
0900 - 0930	Principles of Material Handling Fundamental Principles • Cost Considerations • Safety and Ergonomics
0930 - 0945	Break
0945 - 1130	Material Handling Equipment Types of Equipment (e.g., Conveyors, Cranes, Forklifts) • Selection Criteria • Maintenance and Inspection Procedures
1130 - 1230	Warehouse Management Systems (WMS) Introduction to WMS • Functions and Benefits • Integration with Other Systems
1230 - 1245	Break
1245 - 1320	Inventory Management Techniques Just-In-Time (JIT) Inventory • ABC analysis • Economic Order Quantity (EOQ)
1350 - 1420	Material Flow & Layout Planning Principles of Efficient Material Flow • Layout Design Considerations • Case Studies and Examples
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
1400	Lunch & End of Day One



Day 2: Monday, 20th of January 2025

0730 – 0830	Basics of Spare Parts Management Importance in the Petroleum Industry • Challenges and Best Practices • Role of Spare Parts in Maintenance and Operations
0830 – 0930	Classification & Coding of Spare Parts Standard Classification Systems • Developing a Coding System • Benefits of Standardized Classification
0930 – 0945	Break
0945 – 1130	Demand Forecasting for Spare Parts Techniques for Accurate Forecasting • Managing Variability in Demand • Tools and Software for Forecasting
1130 – 1230	Procurement Strategies for Spare Parts Sourcing and Vendor Management • Procurement Processes and Policies • Cost Control Measures
1230 – 1245	Break
1245 – 1330	Inventory Control Techniques Safety Stock Management • Reorder Point Calculation • Inventory Turnover Optimization
1330 - 1420	Lifecycle Management of Spare Parts Lifecycle Stages • Obsolescence Management • Disposal and Recycling Practices
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, 21st of January 2025

0730 – 0830	Automation in Material Handling Types of Automation Systems • Benefits and Challenges • Case Studies of Automation in the Petroleum Industry
0830 – 0930	Material Handling in Hazardous Environments Safety Protocols and Regulations • Equipment for Hazardous Materials • Risk Assessment and Management
0930 – 0945	Break
0945 – 1130	Lean Material Handling Principles of Lean Management • Implementing Lean Techniques • Measuring Performance and Improvements
1130 – 1230	Use of Technology in Material Handling RFID and Barcode Systems • Internet of Things (IoT) Applications • Data Analytics for Material Handling
1230 – 1245	Break
1245 – 1330	Energy Efficiency in Material Handling Energy-Saving Techniques • Sustainable Practices • Cost-Benefit Analysis
1330 - 1420	Quality Control in Material Handling Importance of Quality Control • Techniques for Ensuring Quality • Continuous Improvement Practices
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 Three





Day 4: Wednesday, 22nd of January 2025

0730 – 0830	Control Systems Basic Concepts and Components • Types of Control Systems • Applications in Material Handling
0830 – 0930	Automated Storage & Retrieval Systems (AS/RS) Functionality and Benefits • Design and Implementation • Maintenance and Troubleshooting
0930 – 0945	Break
0945 – 1130	Tracking & Monitoring Systems GPS and Tracking Technologies • Monitoring Software • Real-Time Data Analysis
1130 – 1230	Warehouse Safety & Compliance Safety Regulations and Standards • Implementing Safety Protocols • Training and Emergency Response
1230 – 1245	Break
1245 – 1330	Transport & Logistics Management Coordination of Material Movements • Transport Modes and their Selection • Logistics Planning and Optimization
1330 - 1420	Spare Parts Logistics Managing Inbound and Outbound Logistics • Distribution Strategies • Logistics Performance Metrics
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

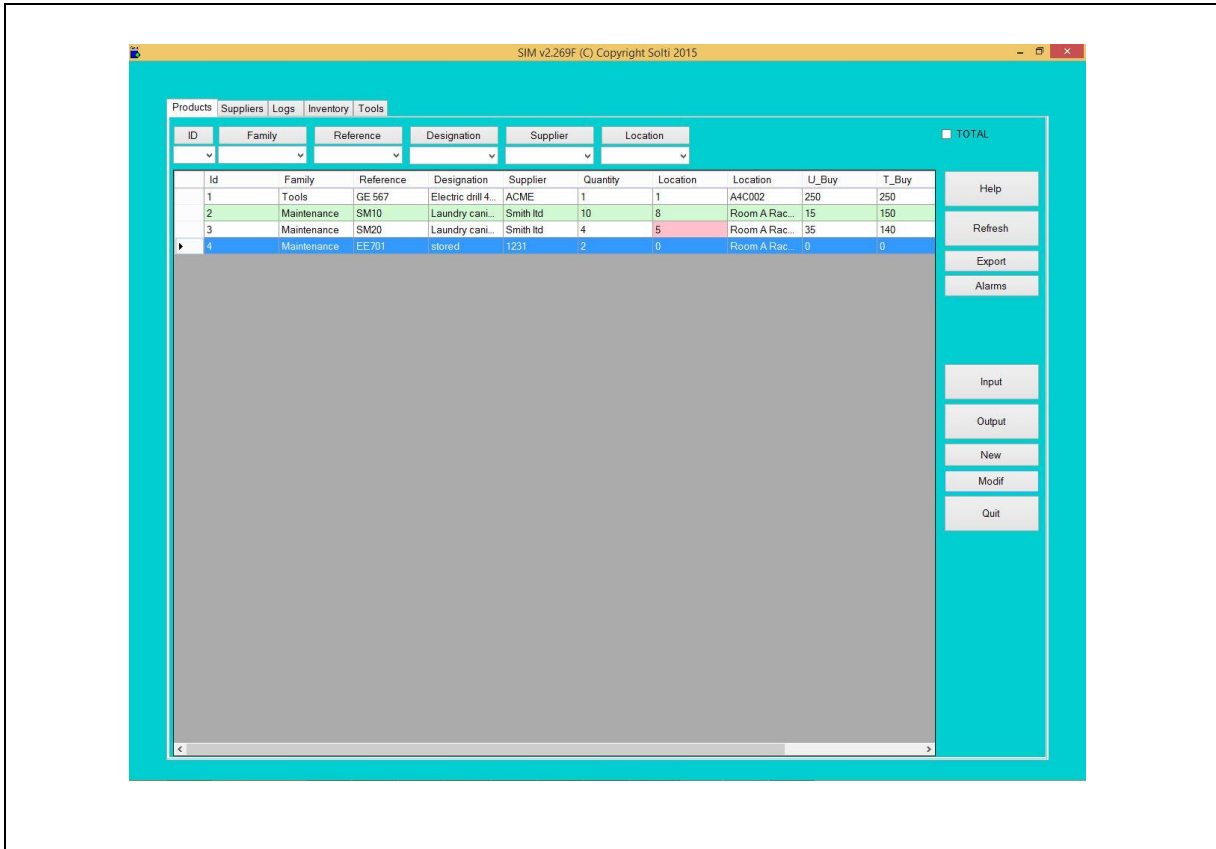
Day 5: Thursday, 23rd of January 2025

0730 – 0830	Case Studies on Material Handling Systems Successful Implementations in the Petroleum Industry • Lessons Learned and Best Practices • Discussion and Analysis
0830 – 0930	Workshops & Hands-On Training Practical Exercises on Material Handling Equipment • Simulation of Control Systems • Interactive Problem-Solving Sessions
0930 – 0945	Break
0945 – 1130	Evaluation of Material Handling Processes Auditing and Assessment Techniques • Identifying Areas for Improvement • Developing Action Plans
1130 – 1230	Spare Parts Management Software Overview of Popular Software Solutions • Features and Functionalities • Implementation and User Training
1230 – 1245	Break
1245 – 1330	Future Trends in Material Handling & Spare Parts Management Emerging Technologies and Innovations • Industry Trends and Predictions • Preparing for Future Challenges
1330 – 1400	Course Conclusion 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



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 state-of-the-art simulator “Simple Inventory Manager” software.



Course Coordinator

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