COURSE OVERVIEW LE1012
Lean for Quality Control Excellence

Course Title
Lean for Quality Control Excellence

Course Date/Venue
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3.0 CEUs (30 PDHs) AWARD

Course Reference
LE1012

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 Lean for Quality Control Excellence. It covers the benefits of Lean in quality control, Lean thinking and the quality control process; The lean five principles, Kaizen, value stream mapping (VSM) and the role of quality control in Lean; the 5S methodology and its benefits for quality control; the standardized work, just-in-time, root cause analysis (RCA), Kanban systems and poka-yoke; the key performance indicators (KPIs) for quality control, control charts and statistical process control (SPC); the first pass yield (FPY) and defects per million opportunities (DpMO), cycle time and lead time in lean QC.

During this interactive course, participants will learn the Six Sigma and Lean in quality control, benchmarking in quality control and the A3 problem-solving approach; the root cause analysis (RCA) advanced techniques, failure mode effects analysis (FMEA) and fishbone diagram (Ishikawa) for quality control; the value engineering and Lean in quality control as well as PDCA (plan-do-check-act) cycle in quality control; the Lean in quality control, sustaining Lean in quality control and teamwork and employee involvement in Lean QC; selecting the right tools for the job and creating an action plan for implementing tools; and the future trends in lean and quality control.

Course Objectives

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

- Apply and gain a comprehensive knowledge on lean for quality control excellence
- Discuss the benefits of lean in quality control including lean thinking and the quality control process
- Explain the lean five principles, Kaizen, value stream mapping (VSM) and the role of quality control in lean
- Identify the 5S methodology and its benefits for quality control
- Determine standardized work, just-in-time, root cause analysis (RCA), Kanban systems and poka-yoke
- Apply key performance indicators (KPIs) for quality control, control charts and statistical process control (SPC)
- Discuss first pass yield (FPY) and defects per million opportunities (DpMO), cycle time and lead time in lean QC
- Carryout Six Sigma and lean in quality control, benchmarking in quality control and the A3 problem-solving approach
- Employ root cause analysis (RCA) advanced techniques, failure mode effects analysis (FMEA) and fishbone diagram (Ishikawa) for quality control
- Apply value engineering and lean in quality control as well as PDCA (plan-do-check-act) cycle in quality control
- Implement lean in quality control, sustain lean in quality control and apply teamwork and employee involvement in lean QC
- Select the right tools for the job, create an action plan for implementing tools and discuss the future trends in lean and quality control

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 lean for quality control excellence for quality control inspectors, quality assurance engineers, process improvement specialists, lean coordinators / facilitators, manufacturing / production supervisors, operations managers, industrial / process engineers, six sigma practitioners, continuous improvement team members, compliance and regulatory officers, R&D and product development staff, internal auditors, supply chain and procurement professionals and other technical staff.

Course Date/Venue

Session(s)	Date	Venue
1	June 15-19, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
2	August 17-21, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
3	October 06-10, 2025	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
4	December 07-11, 2025	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

Course Certificate(s)

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

Certificate Accreditations

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**. 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 **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. Paul Patsi, MSc, BSc, is a **Senior Management Consultant** and an **International Expert** in **Analytical Chemistry Water & Treatment Technology** with over **20 years** of extensive experience in **Analytical Laboratory** and **Water & Wastewater Treatment Engineering**. His expertise covers **Laboratory Assessment**, **Microbiological Quality Assurance**, **Analytical Chemistry**, **Statistical Analysis**, **Laboratory Safety**, **Equipment & Infrastructure Management**, **Budgeting & Planning of Laboratory Consumables**, **Business Administration**, **Personnel Management**, **Laboratory Management**, **Chemical Analysis**, **Laboratory Auditing**, **Risk Assessment**, **Microbiological Analysis of Water & Waste Water**, **Waste Water Treatment Analysis**, **Water Chemistry**, **HACCP**, **ISO 22000**, **ISO 17025**, **ISO 9001**, Good Manufacturing Practice (**GMP**), Good Hygiene Practice (**GHP**) and Good Laboratory Practice (**GLP**). He is also an expert in microbiological indoor air quality, water biology, food sampling and calibration. He is currently the **Head of Industrial Analytical Laboratory** of PINDOS wherein he is in-charge of the budgeting, auditing, consumables, suppliers, personnel management, equipment and infrastructure management along with waste water treatment and water/environmental legislation.

During his career life, Mr. Paul has held key positions such as the **Head of Microbiology & Chemical Laboratory**, **Head of Quality Control**, **Technical Consultant**, **Research Projects Specialist**, **Scientific Consultant**, **Biologist-Scientific Expert** and **Biologist** for multi-billion companies like the **European Union**, **Help LTD**, **Lake Pamvotis Municipality Company**, **Hellenic Centre for Marine Research**, **Cargill** and **Nestle** just to name a few.

Mr. Paul has a **Master** degree in **Food Science and Food Technology** from the **University of Ioannina** (**Greece**) and a **Bachelor** degree in **Biology** from the **Aristotle University of Thessaloniki** (**Greece**). He is a **Certified Instructor/Trainer** and a **Member** of the **Society for Applied Microbiology**, **Society of Biological Scientist** and the **Global Coalition for Sustained Excellence in Food & Health Protection**.

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.

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Lean*** *History & Evolution of Lean • Key Lean Principles: Value, Value Stream, Flow, Pull, Perfection • Lean versus Traditional Manufacturing • Benefits of Lean in Quality Control*
0930 – 0945	*Break*
0945 – 1030	***Lean Thinking & The Quality Control Process*** *Understanding Waste (Muda) in Quality Control • Types of Waste in Manufacturing • How Lean Thinking Applies to Quality Control • Case Studies on Lean Quality Improvements*
1030 – 1130	***The Lean Five Principles*** *Define Value from the Customer's Perspective Identify the Value Stream • Create Flow by Eliminating Waste • Establish Pull Systems • Pursue Perfection Through Continuous Improvement*
1130 – 1230	***Kaizen: Continuous Improvement*** *Kaizen Basics: Incremental Improvement • Role of Kaizen in Quality Control • Implementing Kaizen Events • Measuring Kaizen Impact on Quality Control*
1230 – 1245	*Break*
1245 – 1330	***Value Stream Mapping (VSM)*** *What is Value Stream Mapping? • Tools for Mapping the Value Stream • Identifying Non-Value-Adding Activities • Practical Exercises in Value Stream Mapping*
1330 – 1420	***The Role of Quality Control in Lean*** *How QC Integrates with Lean Principles • The Importance of Quality in Lean Systems • Managing Quality in a Lean Environment • Key QC Metrics in Lean*
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

0730 – 0830	***5S System: Organizing the Workplace*** *The 5S Methodology (Sort, Set in Order, Shine, Standardize, Sustain) • Implementing 5S in QC Departments • Benefits of 5S for Quality Control • Case Studies of Successful 5S Implementation*
0830 – 0930	***Standardized Work*** *Importance of Standardized Work in Quality Control • Developing Standardized Work Instructions • Training for Standardized Work • Monitoring & Improving Standardized Work*
0930 – 0945	*Break*
0945 – 1045	***Just-In-Time (JIT) & QC*** *Understanding Just-In-Time Production • JIT & its Impact on Quality Control • Minimizing Defects Through JIT • Real-World JIT Applications in Quality Control*
1045 – 1200	***Root Cause Analysis (RCA)*** *Methods of Root Cause Analysis in Lean • Tools: 5 Whys, Fishbone Diagram • Identifying & Eliminating Defects • Practical Exercises in RCA*
1200 – 1215	*Break*
1215 – 1330	***Kanban Systems*** *Overview of Kanban • Using Kanban for Quality Control • Pull Systems & their Role in QC • Kanban Examples in QC Processes*
1330 – 1420	***Poka-Yoke: Error Proofing*** *Introduction to Poka-Yoke (Error Proofing) • Techniques for Designing Error-Proof Systems • Case Studies of Poka-Yoke in Quality Control • Poka-Yoke in Reducing Defects & Waste*
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

0730 – 0830	***Key Performance Indicators (KPIs) for Quality Control*** *Defining KPIs for Lean Quality Control • Measuring Effectiveness & Efficiency • Common Quality Control KPIs • Aligning KPIs with Lean Goals*
0830 – 0930	***Control Charts & Statistical Process Control (SPC)*** *Understanding Control Charts • Types of Control Charts for Quality Control • SPC Techniques in Lean Environments • Analyzing Data with SPC to Drive Improvements*
0930 - 0945	*Break*
0945 – 1130	***First Pass Yield (FPY) & Defects Per Million Opportunities (DPMO)*** *Calculating & Interpreting FPY • Understanding DPMO in Lean Quality Control • Tracking & Reducing Defects • Using FPY & DPMO as Performance Metrics*
1130 - 1230	***Cycle Time & Lead Time in Lean QC*** *Defining Cycle Time & Lead Time • Measuring & Reducing Cycle Times in Quality Control • Impact of Cycle Time on Lean & QC • Case Study: Reducing Cycle Time to Improve Quality*
1230 - 1245	*Break*

1245 - 1330	***Six Sigma & Lean in Quality Control*** *Introduction to Six Sigma Methodology • How Six Sigma Complements Lean for Quality Control • Tools for Measuring Quality: DMAIC Process • Combining Lean & Six Sigma for Greater Results*
1330 - 1420	***Benchmarking in Quality Control*** *What is Benchmarking? • Tools & Techniques for Benchmarking • Using Benchmarking to Improve Lean Quality Control • Real-World Examples of Benchmarking for Quality Improvement*
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

0730 – 0830	***The A3 Problem-Solving Approach*** *Overview of A3 Thinking • A3 Problem-Solving Process in QC • Applying A3 to Real-World Quality Issues • Practical Examples of A3 Reports*
0830 – 0930	***Root Cause Analysis (RCA) Advanced Techniques*** *Advanced RCA Tools: Fault Tree Analysis (FTA), Failure Mode Effects Analysis (FMEA) • How to Combine RCA with Lean Practices • Identifying Hidden Causes of Defects • Case Study Analysis of a Failed Quality Control Process*
0930 - 0945	*Break*
0945 – 1130	***Failure Mode Effects Analysis (FMEA)*** *Introduction to FMEA • FMEA Process Steps for QC • Prioritizing Failure Modes for Corrective Actions • Using FMEA to Prevent Defects*
1130 - 1230	***Fishbone Diagram (Ishikawa) for Quality Control*** *Understanding the Fishbone Diagram • Identifying Causes of Defects with Fishbone Analysis • Using Fishbone for Continuous Improvement • Case Study: Solving QC Issues Using Fishbone*
1230 - 1245	*Break*
1245 - 1330	***Value Engineering & Lean in Quality Control*** *What is Value Engineering? • Applying Value Engineering in Lean Quality Control • Identifying Cost-Saving Opportunities in QC • Real-World Case Studies of Value Engineering in QC*
1330 - 1420	***PDCA (Plan-Do-Check-Act) Cycle in Quality Control*** *Understanding the PDCA Cycle • Using PDCA for Quality Improvement • Implementing PDCA for Problem-Solving • Practical Examples of PDCA in QC Operations*
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

0730 – 0930	***Implementing Lean in Quality Control*** *Steps for Introducing Lean Principles in QC • Overcoming Resistance to Change in Quality Control • Role of Leadership in Lean Implementation • Measuring the Success of Lean Implementation*
0930 - 0945	*Break*
0945 – 1030	***Sustaining Lean in Quality Control*** *Key Challenges in Sustaining Lean Practices • Creating a Culture of Continuous Improvement • Ensuring Management Support & Engagement • Using Lean Audits to Sustain Gains*
1030 – 1115	***Teamwork & Employee Involvement in Lean QC*** *The Role of Team Involvement in Lean Success • Empowering Employees for Lean in QC • Developing Cross-Functional Teams • Team-Based Problem-Solving Techniques*
1115 - 1230	***Lean Quality Control Tools & Techniques Recap*** *Recap of Key Lean Tools for QC • Selecting the Right Tools for the Job • Creating an Action Plan for Implementing Tools • Case Study of Successful Lean Tool Application*
1230 - 1245	*Break*
1245 - 1345	***Future Trends in Lean & Quality Control*** *The Future of Lean in Quality Control • Digital Tools & Lean Integration • Industry-Specific Trends in Lean QC • Innovations in QC Through Lean Practices*
1345 – 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*

Practical Sessions

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

Course Coordinator

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