

COURSE OVERVIEW SS0004
Six Sigma Fundamentals

Course Title

Six Sigma Fundamentals

Course Date/Venue

October 13 -17, 2024/ Al Aziziya Hall,
 The Proud Hotel Al Khobar, Al Khobar,
 KSA

Course Reference

SS0004

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



80% of this course is practical sessions where participants will be engaged in a series of interactive small groups, class workshops and role-plays.



Six Sigma is a set of techniques and tools for process improvement. It seeks to improve the quality of the output of a process by identifying and removing the causes of defects and minimizing variability in manufacturing and business process. It uses a set of quality management methods, mainly empirical, statistical methods, and creates a special infrastructure of people within the organization, who are experts in these methods. Each Six Sigma project carried out within an organization follows a defined sequence of steps and has specific value targets, for example: reduce process cycle time, reduce pollution, reduce costs, increase customer satisfaction, and increase profits.



The aim of this course is to provide participants with a complete and up-to-date overview of six sigma. It covers the basics of six sigma; the principles and language of six sigma; DMAIC; and forecasting future performance, designing, conducting, and analyzing experiments.

At the completion of the course, participants will be able to maintain gains through statistical process control; recognize six sigma technology tool landscape; identify the tools for performing six sigma analysis; manage six sigma; enumerate the top ten do's and don't's of six sigma; and list the ten ways to gain synergies with lean and six sigma as well as the ten places to go for help.

Course Objectives

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

- Apply and gain an in-depth knowledge on six sigma
- Get acquainted with six sigma basics through defining six sigma and linking quality and business
- Examine the principles and languages of six sigma and organize for improvement
- Define, measure and analyze DMAIC
- Improve and control DMAIC through forecasting future performance and designing, conducting and analyzing experiments (DOE)
- Implement standardizing on improvement and maintain gains through statistical process control
- Recognize six sigma technology tool landscape covering process characterization and optimization technologies
- Identify the tools for performing six sigma analysis and manage six sigma
- Enumerate the top ten do's and don't's of six sigma
- List the ten ways to gain synergies with lean and six sigma as well as the ten places to go for help

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Howard 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 six sigma for those who are interested in six sigma concepts and methodology.

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 Fee

US\$ 7,000 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 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. Mario Gabrael, MBA, BSc, PMP, CAPM, CSM is a **Senior Management Consultant** with **25** years of extensive experience within the **Oil, Gas, Petrochemical, Refinery & Power** industries. His expertise widely covers in the areas of **Complexity in Decision-Making, Dealing with Ambiguity, Adaptive Leadership, Communication Mastery, Emotional Intelligence, Mindfulness and Resilience Training, Innovative Thinking, Capstone Project Presentations, Strategic Planning in VUCA, Petrochemical, Refinery & Power** industries, **Machine Learning** for Instrumentation and Control, **Artificial Intelligence** for IoT Sensors, **AI & Automation** in **Process Control Systems, AI in Healthcare Instrumentation**, Predictive Maintenance with **Artificial Intelligence** and **AI & Data Analytics**. Further, he is also well-versed in **Project & Construction** Management, **Project** Planning, Scheduling & Control, **Project** Management, Project Delivery & Governance Framework, **Project** Management Practices, **Project** Management Disciplines, **Project** Risk Management, **Risk** Identification Tools & Techniques, **Project** Life Cycle, **Project** Stakeholder & Governance, **Project** Management Processes, **Project** Integration Management, **Project** Management Plan, **Project** Work Monitoring & Control, **Project** Scope Management, **Project** Time Management, **Project** Cost Management, **Project** Quality Management, **Quality** Assurance, **Project** Human Resource Management, **Project** Communications Management and **Contract** Management.

During Mr. Gabrael's career life, he has gained his practical experience through several significant positions and dedication as the **Senior Project Manager, Project Manager, Data Manager, Program Manager, Senior Instructor/Trainer** and **Agile Scrum Trainer** from various companies, colleges and institutes like the LAUNCHMETRICS, Higher Colleges of Technology, Bahrain Polytechnic, CCH Wolters Kluwer, Sydney's Bridge Business College, News Digital Media Ltd, Ge Finance and Sydney University

Mr. Gabrael has a **Master's of Business Administration** in **Human Resources & Finance** and a **Bachelor's Degree** in **Marketing & Economics** from the **University of Sydney, Australia**. Further, he is a **Certified Instructor/Trainer**, a Certified Scrum Master - AGILE (**CSM**) from the Scrum Alliance, a Certified Project Management Professional (**PMI-PMP**), a Certified Associate in Project Management (**PMI-CAPM**), a Member of the Artificial Intelligence for Human Resources (**AIHR**) and delivered numerous trainings, courses, workshops, seminars and conferences internationally.

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, 13th of October 2024

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Getting Acquainted with Six Sigma Basics Better Business & Better Performance: Defining Six Sigma • Linking Quality & Business
0930 – 0945	Break
0945 – 1100	Getting Acquainted with Six Sigma Basics (cont'd) Examining the Principles & Language of Six Sigma • Organizing for Improvement
1100 – 1215	DMAIC: Defining & Measuring Identifying & Right-Sizing Projects • Launching a Project • Mapping to Identify Possible Factors
1215 – 1230	Break
1230 – 1420	DMAIC: Defining & Measuring (cont'd) Diagramming to Identify Possible Factors • Describing Performance with Numbers
1420 – 1430	Recap
1430	Lunch & End of Day One

Day 2: Monday, 14th of October 2024

0730 – 0930	DMAIC: Analyzing Depicting & Analyzing Data through Charts & Graphs • Analyzing for Value
0930 – 0945	Break
0945 – 1100	DMAIC: Analyzing (cont'd) What's Normal? Recognizing Normally-Shaped Variation • Assessing Capability: Comparing the Voices of the Customer & the Process
1100 – 1215	DMAIC: Analyzing (cont'd) Gauging Gauges: Measurement System Analysis (MSA) • Mining Data & Processes for Insight

1215 – 1230	<i>Break</i>
1230 – 1420	DMAIC: Analyzing (cont'd) <i>Making Confident Decisions</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3: Tuesday, 15th of October 2024

0730 – 0930	DMAIC: Improving & Controlling <i>Forecasting Future Performance</i>
0930 – 0945	<i>Break</i>
0945 – 1100	DMAIC: Improving & Controlling (cont'd) <i>Designing, Conducting & Analyzing Experiments (DOE)</i>
1100 – 1215	DMAIC: Improving & Controlling (cont'd) <i>Standardizing on Improvement</i>
1215 – 1230	<i>Break</i>
1230 – 1420	DMAIC: Improving & Controlling (cont'd) <i>Maintaining Gains through Statistical Process Control</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4: Wednesday, 16th of October 2024

0730 – 0930	Looking at the Six Sigma Technology Tool Landscape <i>Eyeing Process Characterization & Optimization Technologies</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Looking at the Six Sigma Technology Tool Landscape (cont'd) <i>Eyeing Process Characterization & Optimization Technologies (cont'd)</i>
1100 – 1215	Looking at the Six Sigma Technology Tool Landscape (cont'd) <i>Tools for Performing Six Sigma Analysis</i>
1215 – 1230	<i>Break</i>
1230 – 1420	Looking at the Six Sigma Technology Tool Landscape (cont'd) <i>Managing Six Sigma</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Four</i>

Day 5: Thursday, 17th of October 2024

0730 – 0930	The Part of Tens <i>Ten Top Do's and Don'ts of Six Sigma</i>
0930 – 0945	<i>Break</i>
0945 – 1100	The Part of Tens (cont'd) <i>Ten Top Do's & Don'ts of Six Sigma (cont'd)</i>
1100 – 1215	The Part of Tens (cont'd) <i>Ten Ways to Gain Synergies with Lean & Six Sigma</i>
1215 – 1230	<i>Break</i>
1230 – 1345	The Part of Tens (cont'd) <i>Ten Places to Go for Help</i>
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Practical Sessions

80% of this highly-interactive course is practical sessions. Theory learnt (20%) will be applied using various role-plays, case studies and practical sessions.



Course Coordinator

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