



# Healthcare Lean Six Sigma Black Belt (Training and Certification Program)

*Sunday – Saturday May 31<sup>st</sup> - June -6<sup>th</sup>, 2015*



المركز الطبي الدولي  
International Medical Center  
Heal & You Will Be Healed

## Course Description:

Lean Six Sigma is a process improvement program that combines two ideas: Lean as a collection of techniques for improving flow in the value stream and eliminate waste and consequently reducing the time needed to provide products or services, and Six Sigma as a collection of techniques and methodology for uncovering root causes to understand and reduce variation and consequently improving the quality of products and services, substantially contributing to increased customer satisfaction.

By combining the two, Lean Six Sigma is a proven business management strategy that helps organizations operate more efficiently. According to many business analysts and quality improvement experts, Lean Six Sigma is the most popular business performance methodology in the history of corporate development.

## Training Approach:

The training consists of a series of training modules that deal with the six sigma tools and stages, plus sessions on related topics designed to improve the capability of lean six sigma black belts. A series of team exercises, case studies, participant group work, and participant discussions are used to give the attendees a chance to put into practice what they have learnt during the lecture presentations.

The trainer will attempt to acquire an understanding the nature of the client's operations in order to select case studies for evaluation that are relevant and interesting. Effectiveness of the presentation will be assessed by having multiple opportunities for group feedback, hands-on group work, and final exam.

## Course Objectives:

This 5-day training program is designed to deliver expert instruction on how to successfully plan and execute the improvement projects in the figure of six sigma methodology.

At the end of this course, the attendees will have an understanding of the six sigma methodology and the application of lean six sigma tools in different phases.

- This well established, integrated course provides effective lean six sigma training for both team leaders and managers who have not been trained as lean six sigma black belt. As well as presentations covering all essential aspects of the method.
- This workshop imparts the necessary knowledge to participants so as to developing their required skills in identification the opportunities for improvement, defining improvement projects, collecting and measuring the relevant data, analyzing the data, identifying root causes of the issues and executing the necessary actions.

## Course Outcomes:

This course aims to equip the learner with the fundamental knowledge and application skills necessary to participate in and / or perform a six sigma project as a team member and / or team leader.

This will be achieved by performing interactive tasks, to achieve the following learning outcomes:

- Identifying the critical business issues
- Understanding the purpose and scope of using six sigma methodologies to tackle the identified issues
- Understanding the purpose and scope of LEAN SIX SIGMA toolbox and application of each tool in the LEAN SIX SIGMA project
- Understanding associated project risks and the methods for mitigating or eliminating them
- Understanding project management purpose and learning applying the project management tools to manages the LEAN SIX SIGMA projects
- Facilitating the LEAN SIX SIGMA projects and managing team dynamics
- Recording and reporting findings and recommendations as lessons learned

## Pre-Requisite:

As the course is designed as black belt; Green belt incorporated is formal pre-requisites.

## Assessment:

A certification exam will be held in the last day of training and the participants who pass the criteria (75% marks) will be certified by Comprehensive Business Improvement Solutions (CBIS).

## Learning Material:

A comprehensive lean six sigma Black Belt course manual is included to be kept by delegates as a permanent reference and guide.

A comprehensive six sigma work book including all required forms, formats, spreadsheets, etc.

A comprehensive project map guide in order to have consistent project report.

Topics
• Multiple Regressions
• Advanced Multi-Variation
• Attribute Measurements
• Attribute Measurement Systems
• Sample Size Calculations
• Six Sigma for Service
• Managing Change
• Introduction to DOE
• Full Factorial Experiments
• Full Factorial Simulations
• Fractional Factorials Designs
• DOE Sample Size Selection
• In class DOE Project
• Project Planning & Deliverables
• Project Reviews Measurement
• Design of Experiments Review
• Blocking in Experiments
• General Factorial Experiments
• Six Sigma Residual Analysis
• Non-Normal Data – Transformations
• Non-Normal Data in Experiments
• Sequential Experimentation
• Response Optimization Designs
• Multiple Response Optimizations
• Transactional Improvements
• Simulations for Improvement
• Applied Experimentation
• Statistical Process Control
• Mistake Proofing
• Control Methods
• Project Closure and Synergy
• Class Project
• Project Reviews
• Final Exam

**Who should attend?**

- Process/Plant/Project/ engineers and other technical personnel
- Operation management team
- Quality, Process improvement managers and leaders
- Project managers

**Courses Instructor:**

**Arash Niavarani** is a highly experienced Business Process Improvement (BPI) trainer and consultant with about 17 years experience in implementing, consulting, training and coaching of BPI methodologies such as Lean and Six Sigma with a proven record of unprecedented accomplishments including:

- B.Sc. and M.Sc. - Industrial Engineering, PhD. , Mechanical Engineering, PhD. Business IT
- Highest level (Master Black Belt) of LEAN SIX SIGMA and implementing more than 100 successful lean six sigma projects in servicing and manufacturing industry (DMAIC, DFSS, Lean,TPS,) in different areas including productivity, quality, cost reduction, customer satisfaction, resource utilization in a vast range of industries such as manufacturing, Servicing, healthcare, supply chain, mining.
- Internationally recognized Lean Six Sigma expert accredited by ASQ and IASSC as Lean Six Sigma Trainer and coach,
- Strong leadership and influencing skills with the ability to engage stakeholders at all levels in a cross-functional environment to continue to drive process improvement with 15 years management and leadership experience as, Quality manager, Project manager, Process improvement manager,
- Expert in applying project management concepts as “Project Management professional (PMP)” with in-depth knowledge of PMBOK, PRINCE2 and ISO 10006,
- Expert in applying business data analysis and BPI tools and software
- Certificate IV in Training and Assessment with 13 years of experience in teaching a vast range of training courses relevant to quality and process improvement.
- Publishing more than 50 books, papers and training course materials in quality and process improvement.

**Time:** 8:00 am – 5:00 pm

**Location:** The International Medical Center,  
Main Auditorium

**Fee:**

	Early Birds Before 05 / 30 / 2015	Onsite Registration
Healthcare Professionals	<b>6,000</b>	<b>6,500</b>
Groups 3 or more	<b>5,500</b>	<b>6,000</b>

*Registration fees include Material, CBIS exam and certificate*

**Bank:** Saudi Fransi Bank - Main Branch,  
Jeddah, Saudi Arabia

**Account Name:** International Medical Center  
**IBAN #:** SA56 5500 0000 0052 6850 1650

**For Registration, Payments & Further Information:**

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**Email:** [academy@imc.med.sa](mailto:academy@imc.med.sa)

- Certificates of attendance will be distributed at the end of the event

## Comprehensive Business Improvement Solutions (CBIS)

CBIS is a training and consulting firm that works collaboratively with organizations to achieve compliance and excellence by drawing on cross-disciplinary expertise in business improvement (Lean and Six Sigma), management systems (ISO Standards) and project management.

CBIS is partnership with below companies:



**Minitab**



## Organized By:

IMC Academy, Medical Education Department, International Medical Center in collaboration with Comprehensive Business Improvement Solutions (CBIS)



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