Lean Six Sigma
Black Belt Certification
Online Training Program

Program starts May 17, 2021
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OVERVIEW
Lean Six Sigma is a strategy that supports an organization’s short-term need to survive and rapidly reduce cost, while looking at its long-term road to transform into an agile, high-performing organization with sustainable growth. The 144 hours of Lean Six Sigma Black Belt (LSSBB) training at the Asian Institute of Management prepares you as a major performance contributor and an improvement leader in your organization. In addition to the comprehensive tools in the Black Belt repertoire, AIM focuses on critical leadership skills necessary to get the job done.

Our Master Black Belt (MBB) facilitators with many years of solid working and consulting experience in manufacturing, service, healthcare, finance, pharmaceutical, BPO, IT, and public sectors will provide personal insights and practical applications from actual work experiences throughout the program. The AIM LSSBB sessions will also make use of relevant cases and examples, leveraging on its learning resources and its network of international community alliances.

PROGRAM OBJECTIVES
The program aims to develop the participants as Process and Quality Leaders in their respective organizations. The program will enable them to:

1. Acquire the knowledge and skills necessary to apply the LSSBB DMAIC concepts in solving complex problems by:
   a) Understanding theoretical and practical applications of LSSBB DMAIC concepts through examples and case studies
   b) Using critical, creative and systems thinking in decision-making
   c) Using statistical and other related software to aid in problem analysis and project management (e.g., Minitab, SigmaXL, etc.)

2. Become a Lean Six Sigma practitioner and help achieve organizational goals by:
   a) Managing various stakeholders and getting their support in pursuit of process improvement initiatives aligned with the organization’s strategic goals
   b) Leading high-stake projects of the organization (e.g., Revenue increase, Cost Reduction, Delivery improvement, Customer Satisfaction, Innovation projects, etc.)
   c) Driving the organization towards continuous improvement, be it incremental or radical innovation for creating and reinforcing its competitive advantage

KEY BENEFITS
- Learn from the faculty team, and listen to their solid lean six sigma experiences
- Become an extraordinary problem solver, and learn how to better apply critical thinking, creative thinking, and systems thinking in solving problems
- Career opportunity advancement for gaining a LSSBB
- Networking opportunity with the Lean Six Sigma Faculties and fellow Black Belt candidates

WHO SHOULD ATTEND
- The program is a must for anyone with at least 3 years of work experience in any industry
- Enrollees will be assessed by the AIM LSSBB technical committee to ensure right fit and profile. This is to manage mutual expectations beforehand and ensure that the Black Belt candidate is highly committed to the rigor of the AIM LSSBB Certification Training.

FOR INQUIRIES:
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WHAT YOU WILL LEARN

DEFINE
The Black Belt as a Change Agent
- Basic Critical Thinking
- Assertiveness Communication
- Stakeholder/Change Management
- Team Management
- Basic Project Management
- Roles and Responsibilities
- Project Identification (Strategic Alignment, COPQ)

High-level Mapping using SIPOC
Understanding the Customer wants and needs
- Voice of the Customer (VOC) and Critical to Quality (CTQ) or Critical Customer Requirements (CCRs)
- KANO model to stratify customer needs to rank which needs are important than the rest to ensure customer retention and loyalty
- Quality Function Deployment to understand core capability against customers’ requirements and needs and align with competitor’s capability

Developing the Project Charter (i.e., Business Case, Scope, Problem Statement, Goal Statement, Benefit Statement, Milestones, Team Members)

MEASURE
Data Door
- Introduction to Minitab
- Basic Statistics (i.e., Data centering and spread)
- Basic probability concepts
- Data distributions (i.e., Normal, Non-Normal)
- Operational Definition in Data Collection
- Sampling and Data Collection, Power and Sample Size
- Data Segmentation-Stratification (i.e., Pivot Table in MS Excel)
- Graphical Analysis (i.e., Box plot, Interval plot, Scatter Plot, Time Series Chart, Run Chart, Histogram, Pareto Chart)
- Measurement System Analysis (i.e., Gage R & R, Attribute Agreement Analysis)
- Process capability (i.e., Normal, Non-Normal)

Process Door
- Detailed Process Mapping
  - Cross-functional Deployment Map or Swimlane Map
  - Value Stream Mapping (VSM)
  - Process waste analysis (i.e., manufacturing, service)
  - Process Cycle Efficiency (PCE)
  - Project Little’s Law

ANALYZE

Conceptual Analysis
- Cause and Effect Diagram or Ishikawa Diagram or Fishbone Diagram
- 5 Whys, 5 Why Tree
- Inter-relation diagram
- Fault-free diagram
- Cause and effect matrix

Exploratory Analysis
- Multivariable Chart
- Regression for continuous data (i.e., Simple Linear, Multiple regression)
- Regression for discrete data (i.e., Logistc regression)

Hypothesis Testing
- Continuous data (i.e., Test of means, variance)
- Discrete
- Non-parametric

Time and Motion Study
- Man vs Machine Analysis
- Takt-time Analysis
IMPROVE

Introduction to Design Thinking
- Empathize, Problem Definition, Ideation, Prototyping, Test

Design of Experiment (DOE)
- Full factorial
- Fractional factorial
- Response Surface Design

Lean Practices
- Jidoka and Mistake Proofing
- Andon System
- Heijunka – Production Levelling
- Ikko-Nagashi – One-piece Flow
- Yamazumi – line balancing
- Quick changeover

Process Resilience Techniques
- Process FMEA
- Design FMEA
- Process Decision Program Chart (PDPC)

Pilot Study
- Pilot conditions
- Basic Prototyping

CONTROL

Control Plan
- Process Control Plan
  - Process management chart
- Out of Control Action Plan (OCAP)

Process documentation and standardization (ISO fundamental)
- Process Documentation
- Documentation and Control

Control Charts
- Control chart concepts (i.e., Subgrouping, Common and Special causes, Evaluation limits, Nelson test, Western test)
- Control chart for continuous data (i.e., Imr, XbarR, XbarS)
- Control chart for discrete data (i.e., U, C, P, NP)

Introduction to Design to Six Sigma
- Basic TRIZ

Case Studies
- Harvard Business Cases

Project Coaching
- Free project coaching of 1 hour per month per person by any LSS faculty for next 6 months

CERTIFICATION REQUIREMENTS

- Must pass the AIM LSSBB written exam
- Must complete one high-impact Black Belt project (i.e., Project is benefit is approved and validated by any leadership team member of the company or organization where the BB project was completed)
- Must submit the LSSBB project report to the AIM School of Executive Education and Lifelong Learning Lean Six Sigma technical committee for proficiency assessment relevant DMAIC concepts and tools application. The proficiency of LSSBB tools and techniques can be verified during the conduct of project coaching sessions between the candidate and assigned AIM MBB coach.
Your Program Faculty

Edgar D. Flores
Adjunct Faculty
Asian Institute of Management

Ed Flores is a project manager, coach, consultant, trainer, leader, and mentor of continuous improvement for many years in multi-national companies like in Mitsumi as production supervisor, Essilor as production and continuous improvement manager, Genpact as AVP in operations, Pfizer as regional Asia Continuous Improvement Director, and Shell as regional Asia Operational Excellence Lead.

A practicing Master Black Belt, Ed is instrumental in the deployment of continuous improvement programs in Essilor-Optodev manufacturing plants, in Pfizer in all its commercial operations offices located in 13 countries of Asia, and in Shell in its finance operations also in Asia region. Apart from being an adjunct professor at AIM, Ed is also a trainer/facilitator at the Philippine Institute of Supply Management and the Founder Managing Consultant of INNOSIGMA Consulting. He completed BS in Electrical Engineering at FEU and MBA Degree at the Ateneo Graduate School of Business.

Christian M. Orias
Asian Institute of Management

He is currently an ITIL expert, CMO-DE, CMMB, PMP, CISA, CISM, CGEIT, CRISC, ISO 27001 and 9001 Lead Auditor. He has held various positions from Philippine Electricity Market Corporation as Executive Member of the Audit Committee, Cogniseed Consulting, Inc., as Managing Director and President, Teletech Philippines, Inc., as Director for Human Capital Advanced Business Analytics and Reporting, United Health Group Company as Six Sigma Master Black Belt, Oracle Corporation as Principal I.T. Business Implementations Analyst for APAC and Japan, Hewlett Packard [Asia Pacific] Company as Site Quality and Compliance Manager, British Standards Institute - Neville Clark Corporation as Senior Manager Consultant, and Intel Corporation as Senior Product Quality Engineer.

He completed his 2 engineering degrees from University of Santo Tomas [Master of Science in Management Engineering and Bachelor of Science in Electrical Engineering].

Ariel B. Driz
Asian Institute of Management

He is currently the Lean Six Sigma Master Blackbelt of Maxim Philippines, Microchip Philippines, and Eagle Cement. He has held various positions in BPO International as Lean Six Sigma Master Blackbelt, Navitas Semiconductors as Head of Outsourced Operations, Cirtek Electronics as VP for Quality and Strategic Operations, International Rectifier Inc., as Product and Test Engineering Manager for Asia, Pulse Philippines Inc. as Manufacturing Director, Amkor Technology as Operations Department Manager, Best Electronics and Components Company Inc., as Operations Manager, and Motorola Philippines, Inc., as Final Test and Product Engineering Manager.

He completed his Bachelor of Science in Electronics and Communications Engineering at the De La Salle University, Manila.