

Black Belt Qualification

Lean Six Sigma

Purpose

The purpose of the **Black Belt qualification** is to confirm that a candidate has sufficient knowledge, understanding and application of the Lean Six Sigma process improvement methodology, practice and analytical tools to be able to work effectively as the team leader of complex breakthrough Lean Six Sigma process improvement projects and to support improvement teams operating within an environment supporting Lean Six Sigma.



DEFINE
Define the problem



MEASURE
Quantify the problem



ANALYZE
Identify the cause of the problem



IMPROVE
Implement and verify the solution



CONTROL
Maintain the solution

Continuous Improvement Maturity Model ✓

The syllabus is based on the 'Continuous Improvement Maturity Model' (CIMM). This is a framework that guides an evolutionary staged approach for process improvement from a very early stage to delivering world class products.

CIMM incorporates the best practices methods and techniques of process improvement, quality management and new product development. It includes best practices from Total Quality management (TQM), Kaizen, Total Productive Maintenance (TPM), Lean, Six Sigma and Design for Six Sigma.

V	Creating World Class products & services <ul style="list-style-type: none"> • Product Lifecycle Management • Design for Six Sigma • Enterprise Agility
IV	Creating capable processes <ul style="list-style-type: none"> • Six Sigma • Reducing variation • Statistical analysis
III	Creating stable & efficient processes <ul style="list-style-type: none"> • Lean Management (Flow & Pull) • Waste elimination • Risk Management & First Time Right
II	Creating a Continuous Improvement culture <ul style="list-style-type: none"> • Kaizen events & 'Go to Gemba' • Short Interval Management • Work In Process (WIP) control
I	Creating a solid foundation <ul style="list-style-type: none"> • Organized work environment • Standardized work • Quality control & Quality assurance

Work Class

Capable

Predictable

Managed

Structured



Course Syllabus



- Competitive Strategies
- History of Continuous Improvement
- Philosophy and Principles
- Organizational Process Management
- Project Selection Process
- Management of Change
- Leadership
- Team Development
- Team Formation
- Process Improvement Roadmaps
- Voice of the Customer
- Project Charter
- Project Management Techniques
- Organized Work Environment
- Standardized Work
- Quality Management
- Kaizen
- Basic Quality Tools
- Basic Management Tools
- Process Mapping
- Lean Performance Metrics
- Value Stream Analysis
- Reducing Muda (Waste)
- Reducing Muri (Overburden)
- Reducing Mura (Unevenness)
- Value Stream Improvement
- First Time Right
- Critical to Quality
- Six Sigma Performance Metrics
- Statistics
- Distributions
- Measurement Systems
- Hypothesis Testing & Confidence Intervals
- Correlation and Regression
- Process Capability and Performance
- Design of Experiments
- Statistical Process Control (SPC)
- Product Lifecycle Management (PLM)
- Innovation Management
- Design for Six Sigma Techniques

Who should attend



This qualification is aimed at those who specialize in managing complex business performance breakthrough projects and in supporting the execution of business processes performance improvement projects within an environment supporting Lean Six Sigma.

It is also relevant to those responsible for large or multiple functions or departments who are to program manage and support business processes improvement project teams within their span of authority (e.g. Operational Directors, Programme Directors, Finance Directors, IT Directors and HR Directors).

Assessment



Theory Exam

- Multiple-choice format
- 60 questions
- 63% pass mark (38/60)
- 180 minutes
- Open-book



- This step towards achieving the complete Black Belt certificate involves the submission of two Lean Six Sigma projects to APMG for assessment.
- Each project must demonstrate an achievement of saving / cost avoidance of at least € 50,000 per year.
- Each project must be signed-off by the Champion and Financial Controller.
- The Practical Assessment must be taken within 3 years of successfully completing the theory exam.



Book now
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