

# Six Sigma Green Belt Certification: Process Improvement

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Brussels (Belgium)

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## Six Sigma Green Belt Certification: Process Improvement

~~R20230461149653~~ **Location:** Brussels (Belgium) **Fees:** 5200 GBP

### Why This Course

In today's competitive landscape, organizations must continuously improve processes, eliminate inefficiencies, and deliver consistent quality. Six Sigma Green Belt professionals play a critical role in driving operational excellence through structured problem-solving and data-driven decision-making.

The Six Sigma Green Belt Certification Masterclass is an intensive 5-day program designed to equip participants with the practical skills, analytical tools, and leadership capabilities needed to lead impactful improvement projects. Through hands-on exercises, real data analysis, and project-based learning, participants will gain the confidence and expertise required to deliver measurable, sustainable improvements.

### What You'll Learn and Practice

By the end of this program, participants will be able to:

- Apply the DMAIC Define, Measure, Analyze, Improve, Control methodology to real-world challenges.
- Use statistical and analytical tools to identify process inefficiencies and root causes.
- Implement Lean principles to reduce waste and improve operational flow.
- Lead Six Sigma projects with strong planning, communication, and change management skills.
- Execute advanced problem-solving techniques to deliver long-term quality improvements.

### Program Flow

#### Day 1: Introduction to Six Sigma & Define Phase

- Understanding Six Sigma principles, roles, and the DMAIC roadmap.
- Selecting improvement projects and developing SMART project charters.
- Capturing customer requirements using VOC and translating them into CTQs.
- Creating process maps using SIPOC and Value Stream Mapping to visualize workflows.
- Workshop: Building a project charter and mapping a real process.

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A graphic illustration of a chessboard with several chess pieces (king, queen, rook, knight, and pawns) in gold and silver, set against a background of concentric circles.

## Day 2: Measure Phase

- Planning data collection strategies and selecting appropriate sampling methods.
- Conducting Measurement System Analysis MSA and Gage R&R studies.
- Evaluating baseline performance through process capability indices Cp, Cpk.
- Introduction to Minitab for data entry, visualization, and statistical analysis.
- Exercise: Evaluating measurement variation and baseline capability.

## Day 3: Analyze Phase

- Applying Exploratory Data Analysis EDA to understand data patterns.
- Conducting hypothesis testing to validate findings.
- Using correlation and regression analysis to identify key drivers of performance.
- Root cause identification using Fishbone diagrams, 5 Whys, and other tools.
- Case Study: Root cause analysis of a real-world defect scenario.

## Day 4: Improve & Control Phases

- Introduction to Design of Experiments DOE for optimizing processes.
- Evaluating and selecting improvement solutions using prioritization matrices.
- Planning and managing implementation using change management principles.
- Applying Statistical Process Control SPC and control charts to sustain gains.
- Workshop: Creating a control plan and designing an improvement pilot.

## Day 5: Lean Principles & Project Management

- Applying Lean tools: 5S, Visual Management, Standard Work, and waste elimination.
- Strengthening project management capabilities for Six Sigma initiatives.
- Leading teams effectively through improvement cycles.
- Simulation of a complete Six Sigma project with data, analysis, and solutions.
- Simulation: Capstone project walkthrough from Define to Control.

## Individual Impact

- Confidently lead cross-functional improvement projects that deliver measurable ROI.
- Strengthen analytical thinking and data interpretation skills.
- Gain recognized certification credentials as a Six Sigma Green Belt.
- Build stronger leadership and team collaboration capabilities.

## Organizational Impact

- Improved productivity, quality, and cost efficiency through structured improvement.
- Enhanced problem-solving culture driven by data and continuous improvement.
- Reduced process variation, defects, and operational waste.
- Stronger talent pipeline of certified Six Sigma professionals.

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A decorative graphic in the bottom right corner featuring a chessboard with several chess pieces (a king, a queen, and a pawn) in gold and silver, set against a background of concentric circles.

## Training Methodology

The program uses a practical, hands-on approach through:

- Statistical analysis exercises using Minitab.
- Real-world case studies and project simulations.
- Group collaboration, brainstorming, and problem-solving workshops.
- Expert coaching and guided practice for all DMAIC phases.

## Beyond the Course

Participants will return with a complete toolkit of Six Sigma and Lean methodologies—ready to tackle process challenges, lead improvement teams, and drive operational excellence as certified Green Belt practitioners.

A graphic of a chessboard with several chess pieces. A gold king piece is in the foreground, with a silver pawn and a gold pawn behind it. The board is checkered, and there are concentric circles in the background.

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