



Lean & Six Sigma Guide

2018



Coalition Trading 616

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Contents

Accreditation	4
Results that your company can expect	5
What you can expect	5
Why choose 2KO as your Training Provider?	6
Some of the companies we've trained in 2016:	6
Difference between LEAN and DMAIC	7
Difference between the different belts	8
Courses and outlines:	9
Six Sigma Yellow Belt Certification:.....	9
Six Sigma Green Belt Certification:	10
Six Sigma DMAIC Black Belt Certification:	12
Six Sigma and Lean Principles:.....	14
Lean Six Sigma Green Belt:	15
Lean Six Sigma Black Belt Certification	17
Six Sigma Champion	19
2 Day – Leadership Champion Training for Six Sigma-Schedule	20
Design for Six Sigma	21
Lean Six Sigma IT.....	22
Six Sigma Green Process Management	24
Lean Office and Service.....	25
Lean Product Development.....	26
Two-Day Toyota Kata	28
Online Courses	29
Six Sigma White Belt	29
Six Sigma Yellow Belt	31
Six Sigma Green Belt: SigmaXL-based Anywhere Online Training	33

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Green Belt: Minitab-based.....	35
Six Sigma Black Belt: SigmaXL Based.....	37
Black Belt training: MiniTab Based.....	40
Champion training.....	43
Lean Methodology (Level 1 -3) and Tools	45
Design for Six Sigma (DFSS).....	47

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



2KO International – Six Sigma South Africa is the leading Six Sigma Training provider for many of the largest companies in South Africa, as well as neighboring African countries. Choosing the correct training provider is crucial in a successful Six Sigma/Lean process. At 2KO International we work closely together with companies to assist them according to their specific training needs.

1. Accreditation

2KO International has achieved both International and local accreditation for our Six Sigma courses. Providing our clients with the peace of mind that our training is of the highest standard.

IASSC Accredited training provider: The International Association for Six Sigma Certification (IASSC) is a Professional Association dedicated to growing and enhancing the standards within the Lean Six Sigma Community. <http://www.iassc.org/>

Six Sigma Council Registered Training Provider: We are a professional accrediting body within the Six Sigma industry that does not provide training, mentoring, coaching, or consulting services. Our objective is to ensure that Six Sigma Certified individuals have been exposed to the complete Six Sigma Body of Knowledge and have been required to meet a minimum standard of proficiency for Six Sigma and its implementation.

<http://www.sixsigmacouncil.org/>

MICT SETA Accreditation: 2007/01/215

- **SAQA Unit Standard:** 243816 | Developing a project quality management plan for a simple to moderately complex project | Level 5
- **SAQA Unit standard ID:** 252037 | **Title:** Build teams to achieve goals and objectives | Level 5
- **SAQA Unit standard ID:** 110021 | **Title:** Achieve personal effectiveness in business environment | Level 4
- **SAQA Unit standard ID:** 15234 | **Title:** Apply efficient time management to the work of a department/division/section | Level 5



Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



2. Results that your company can expect

- Improved Customer Service Loyalty
- Time Management and efficiency
- Reduced Cycle Time
- Employee Motivation
- Strategic Planning
- Supply Chain Management
- Bottom line cost savings (5%-20% of turnover per annum)
- Improved quality of product or service as perceived by the customer (internal and external customers)
- Development of staff skills
- Common language throughout the organisation
- World class standard
- Creates a competitive edge
- Improve ROI
- Drive sales growth

3. What you can expect

- Improved knowledge and skills
- Ability to use a wide range of tools and techniques
- A status that is recognised world wide

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



4. Why choose Six Sigma South Africa | 2KO International as your Training Provider?

- 2KO International has prompt response time in addressing the needs of your company
- 2KO International provides 2 sets of certifications, once students have successfully completed the training and the project.
- Worldwide, the practice is that Six Sigma/Lean certification is awarded by an institution that employs a certified and qualified Six Sigma/Lean black belt trainer (which is what we do). There is no central certifying body like there is for say Microsoft. For this reason, Six Sigma/lean certification is recognized worldwide provided it came from a certified organization.
- 2KO International provides a flexible training schedule to suit delegates
- 2KO International offers training in Johannesburg, Cape Town, Durban and George, as well as onsite elsewhere in the world and we are well-established

5. Some of the companies we've trained in 2017:

- Anglo American
- FNB
- Nedbank
- SCAW
- Vodacom
- Bridgestone
- Truworths
- Landis + Gyr
- Matthey Africa
- Siyaduma Auto Ferriers
- Detpak
- The Biovac Institute
- Momentum
- SekelaXabiso
- Easylife Kitchens
- Torreparts
- KPMG
- Airports
- Natref
- UTi Worldwide
- RB
- Fourier
- And Many More

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



6. Difference between LEAN and DMAIC

Lean Six Sigma:

Goal: Reduction of waste in all of its forms throughout the operation

Method: Set operation to order using 5S and visual factory; identify where in the material and information flows waste exist and eliminate it.

Measure: Operational costs.

Industry: Manufacturing

DMAIC Six Sigma:

Goal: Reduction of variation in all processes of the operation

Method: Search for differences in performance between groups, within groups, and over time to identify primary contributions of variation; develop additional understanding of multivariate causes by studying relationships between process inputs and outputs; put controls in place to minimize the contribution of input variation on output variation.

Measures: Variance, standard deviation, Process Capability (Cp and Cpk), sigma value, operational costs.

Industry: Process environments



7. Difference between the different belts

Yellow Belt Training:

- The most basic level that covers the understanding of the Six Sigma style.
- **Role:** The employee will be part of a project team where he will review process improvements that support the project.

Green Belt Training:

- During the course, the delegate will learn the tips and techniques that make for a good Six Sigma execution, and receive fundamental training in Define, Measure, Analyze, Improve and Control.
- **Role:** People with this certification are often referred to as worker bees because they do the majority of the work during projects. They gather the necessary information, experiments and tests throughout the project.

Black Belt Training:

- Focus on additional training in deeper analysis tools (think stats) and perhaps even some instruction on change management or stakeholder influence.
- **Role:** These are the people who are in charge of the Six Sigma Projects within their respective companies. Most of the time, these are the people who are asked to take on this task on a full time basis. Along with heading the project, they also are expected to coach, develop and advise other managers so the entire company can achieve this goal. Leads problem-solving projects. Trains and coaches project teams.

Master Black Belt Training:

- This is the highest of the Six Sigma belts one can achieve. Focus on Change Management techniques.
- **Role:** The master black belt will make sure everything continues running smoothly and all the training the company learned stays in the company. They are there to execute the practices throughout the company, not just within the project. A Six Sigma master black belt course is all the above, plus will have mentored or coached about 20 or more green belts and black belts, has more developed statistical and analysis skills, plus is well versed in change management techniques.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



8. Courses and Outlines:

Six Sigma Yellow Belt Certification:

Six Sigma Yellow Belt certification provides an overall insight into the techniques of Six Sigma, its metrics, and basic improvement methodologies. A yellow belt must know how to integrate Six Sigma methodologies for the improvement of production and transactional systems to better meet customer expectations and bottom-line objectives of their organization. A Yellow Belt typically has a basic knowledge of Six Sigma, but does not lead projects on their own. The Yellow Belt is needed to gather data, participate in problem solving, and add their expertise to the exploration process.

Course content

- Comprehending and creating the SIPOC Diagram
- Overview of Process Mapping (the 6-foot view)
- C&E Matrix
- Effects Analysis along with Failure Modes
- Fundamental Statistics
- Minitab Introduction
- Developing Graphs (fundamental quality tools)

Course Duration: 2 Days (8:45 -16:00)

Cost: R 6 995 per person | **Course only runs for group bookings of 7 or more delegates.**

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Green Belt Certification:

Six Sigma Green Belt courses prepare candidates for Greenbelt Certification on DMAIC principles. Green Belt requires candidates to demonstrate a skill set which includes starting and completing projects and using a data-based approach to solving practical problems.

Who Should Attend Six Sigma Green Belt?

Process engineers and managers, Quality Engineers and managers, Manufacturing/Production engineers and managers, Service Process Improvement personnel, Customer Service Officers, etc.

Course Duration:	5 days (8:45 – 15:30) on the Friday you write an exam that you need to pass before you can complete the project.
Project Durations:	3 months to complete the project
Total Cost:	R19 999 per person
Venue:	Johannesburg, Durban and Cape Town / Onsite Training for groups of 7 or more delegates at a lower rate

Accreditation:

- **IASSC Accredited training provider:** The International Association for Six Sigma Certification (IASSC) is a Professional Association dedicated to growing and enhancing the standards within the Lean Six Sigma Community.
- **Six Sigma Council Registered Training Provider:** We are a professional accrediting body within the Six Sigma industry that does not provide training, mentoring, coaching, or consulting services. Our objective is to ensure that Six Sigma Certified individuals have been exposed to the complete Six Sigma Body of Knowledge and have been required to meet a minimum standard of proficiency for Six Sigma and its implementation.
- **MICT SETA Accreditation:** 2007/01/215 | **Unit Standard:** 243816 | Developing a project quality management plan for a simple to moderately complex project | Level 5

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Introduction:	Define and Measure Phase:
<ul style="list-style-type: none"> • Course Logistics (rules, program layout, expectations) • What is Six Sigma? (introductory overview) • Project Selection • Project Planning and Charters • Internal Process Measures • Introduction to DMAIC project management 	<ul style="list-style-type: none"> • Basic Statistical Concepts • Control Charts • The Define Phase • Process Mapping • Measuring System Analysis • Process Capability Analysis
Analyze Phase:	Control Phase:
<ul style="list-style-type: none"> • Root Cause Problem Solving Tools • Basic Experimental Design (Hypothesis Testing) • Linear Regression • Introduction to DOE • The Improve Phase 	<ul style="list-style-type: none"> • The Control Phase • Basic Cost Benefit Analysis • The Control Plan Strategy • Error proofing • Levels of Control • Review and Wrap-up



Six Sigma DMAIC Black Belt Certification:

The DMAIC Six Sigma Black Belt course provides you with knowledge of the philosophies and principles of Six Sigma. It is a tool that helps you to exhibit teams (leadership, dynamics, responsibilities and roles). The Black Belt provides you with complete understanding of the DMAIC model in according with the Six Sigma principles.

Who Should Attend?

Process engineers and managers, Quality Engineers and managers, Manufacturing/Production engineers and managers etc.

Course Duration:	10 non-consecutive days (full time). On each Friday, you write an exam that you need to pass before you can complete the project.
Project durations:	Maximum of 6 Months
Total Cost:	R35 995 per person
Venue:	Johannesburg

Accreditation:

- **IASSC Accredited training provider:** The International Association for Six Sigma Certification (IASSC) is a Professional Association dedicated to growing and enhancing the standards within the Lean Six Sigma Community.
- **Six Sigma Council Registered Training Provider:** We are a professional accrediting body within the Six Sigma industry that does not provide training, mentoring, coaching, or consulting services. Our objective is to ensure that Six Sigma Certified individuals have been exposed to the complete Six Sigma Body of Knowledge and have been required to meet a minimum standard of proficiency for Six Sigma and its implementation.
- **MICT SETA Accreditation:** 2007/01/215
SAQA Unit standard ID: 252037 | **Title:** Build teams to achieve goals and objectives | Level 5, **SAQA Unit standard ID:** 110021 | **Title:** Achieve personal effectiveness in business environment | Level 4 and **SAQA Unit standard ID:** 15234 | **Title:** Apply efficient time management to the work of a department/division/section | Level 5

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



<p>Introduction</p> <ul style="list-style-type: none"> • Course Logistics (program layout, expectations, etc.) • Six Sigma Introductory Overview • Project Selection • Process and Financial Metrics • Project Reporting Expectations • PDCA (Plan Do Check Adjust) 	<p>Measurement System Analysis</p> <ul style="list-style-type: none"> • Variable Gage R&R • Attribute Agreement Analysis • Variables Data Capability Analysis • Attribute Agreement Analysis
<p>Project Definition</p> <ul style="list-style-type: none"> • Project Charters • Estimating Financial Metrics • Definition of process outputs (characteristics, defects, defectives) • Process Mapping • Strategic Alignment with Project Selection • Project Selection Facilitation 	<p>Basic Statistics</p> <ul style="list-style-type: none"> • Fundamental Statistical Measures • Control Charts • Common and Special Cause Improvement Strategies • Introduction to Minitab • Quality Tools • Introduction to Hypothesis Testing • 1 proportion Tests and 2 proportion Tests • Chi Square Testing • T Tests • ANOVA • Correlation Analysis • Single Regression • Normality and Distributions • Anderson-Darling Test for Normality
<p>Design of Experiments (DOE)</p> <ul style="list-style-type: none"> • Introduction to Design of Experiments • Non Parametric tests and analysis • General Full Factorial Designs • Two-Level Factorial Designs • Three-Level Factorial Designs • Post-hoc Analysis • Fractional Factorials 	<p>Improve and Control</p> <ul style="list-style-type: none"> • Solution Selection and Prioritization • Pilot Studies (assessing countermeasures) • Final Capability Analysis • Process Controls • Wrap-Up



Six Sigma and Lean Principles:

This course is targeted at delegates that would like an overview of both Lean and Six Sigma core principles. Delegates will then decide whether to go the Six Sigma route or the Lean route.

Course outline:

- Change Management
- Define Phase - VOC, SIPOC, Process Map, CCR
- Measure Phase – Indicators, Data, Examples, MSA
- Analyze Phase – Statistics, Ishikawa, C&E, Root Causes
- Improve Phase - Evaluation & Selection, Process Map, Presentation
- Control Phase - Scheduling, RACI, PCS & Documentation
- Lean - Kaizen, RIW, Spaghetti Map, VSM, 5S, 8 Waste

Course Duration: 5 days (8:45 -16:00)

Course only runs for a group of 7 or more delegates

Venue: Onsite Training

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Six Sigma Green Belt:

Green Belts play an important role in your company's Lean Six Sigma implementation strategy. They are the problem solvers assigned to Black Belt projects. Learn how to apply the right tools at the right time to maximize efficiency in defining, measuring, analyzing, improving, and controlling critical processes to increase cost savings.

Who Should Attend?

Problem solvers, data analysts, and project team members in manufacturing and service industries. Individuals seeking to bring significant cost savings to their organization and those interested in becoming a Six Sigma Green Belt and/or sitting for the ASQ Six Sigma Green Belt certification exam will benefit from this training.

Course Duration: 5 days (8:45 – 15:30) on the Friday you write an exam that you need to pass before you can complete the project.

Project durations: 3 months to complete the project

Total Cost: R19 999 per person

Venue: Johannesburg, Durban, George and Cape Town / Onsite Training for groups of 7 or more delegates at a lower rate

Accreditation:

- **MICT SETA Accreditation:** 2007/01/215 **Unit Standard:** 243816 | Developing a project quality management plan for a simple to moderately complex project | Level 5
- **IASSC Accredited training provider:** The International Association for Six Sigma Certification (IASSC) is a Professional Association dedicated to growing and enhancing the standards within the Lean Six Sigma Community.
- **Six Sigma Council Registered Training Provider:** We are a professional accrediting body within the Six Sigma industry that does not provide training, mentoring, coaching, or consulting services. Our objective is to ensure that Six Sigma Certified individuals have been exposed to the complete Six Sigma Body of Knowledge and have been required to meet a minimum standard of proficiency for Six Sigma and its implementation.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Introduction <ul style="list-style-type: none"> • Lean Six Sigma Definitions • Understanding Six Sigma • Understanding Lean Principles • Understanding Losses Attributable to “Waste” • Interrelationship of Lean Six Sigma • Six Sigma Fundamentals 	Control phase <ul style="list-style-type: none"> • Principles of Statistical Process Control • Process Capability • Error Proofing • Reliability & Asset Utilization • Standardized Work • Pull Systems • Understand the 5 phases of the Control Plan
The Define Phase <ul style="list-style-type: none"> • Selecting an Output Characteristic (“Y”) • Defining Performance Standards • Describing the Process • Value Stream Mapping • Swim Lane Mapping • Project Charters • Cost of Poor Quality • Understanding Basic Statistics 	The Measure Phase (Measurement System Analysis) <ul style="list-style-type: none"> • Variable Gage R&R • Attribute Agreement Analysis • Variables Data Capability Analysis • Attribute Data Capability Analysis • Process Discovery • Six Sigma Statistics • Measurement System Analysis • Process Capability
The Analyse Phase <ul style="list-style-type: none"> • Identification of Potential Causes • Hypothesis Testing • Chi-Square & ANOVA • Correlation Analysis • Regression Analysis • Basic Design of Experiments • Quick Changeover (SMED) • Inferential Statistics 	The Improve Phase <ul style="list-style-type: none"> • Establishing Operating Tolerances • Re-evaluating the measurement system • Total Productive Maintenance • Cellular Manufacturing • 5S – Visual Management • Process Modelling Regression • Designing Experiments
Kaizen <ul style="list-style-type: none"> • Developing the Action Plan • Kaizen Outcomes • Project Background and Description of Exercise 	



Lean Six Sigma Black Belt Certification

Black Belts play an important role in your company's Six Sigma implementation strategy. They lead the efforts to breakthrough improvement. This program combines Six Sigma's DMAIC methodology and quality tools with the power of lean manufacturing. Learn how to apply the right tools at the right time to maximize efficiency in defining, measuring, analyzing, improving, and controlling critical processes to improve business performance.

Who Should Attend?

Team Leaders/Potential Team Leaders of Lean Six Sigma Efforts, Manufacturing/Industrial Engineers

Course Duration: 10 non-consecutive days (full time). On each Friday, you write an exam that you need to pass before you can complete the project.

Project durations: maximum of 6 Months

Total Cost: R35 995 per person

Venue: Johannesburg / Onsite Training for groups of 7 or more delegates at a lower rate

Accreditation:

- **IASSC Accredited training provider:** The International Association for Six Sigma Certification (IASSC) is a Professional Association dedicated to growing and enhancing the standards within the Lean Six Sigma Community.
- **Six Sigma Council Registered Training Provider:** We are a professional accrediting body within the Six Sigma industry that does not provide training, mentoring, coaching, or consulting services. Our objective is to ensure that Six Sigma Certified individuals have been exposed to the complete Six Sigma Body of Knowledge and have been required to meet a minimum standard of proficiency for Six Sigma and its implementation.
- **MICT SETA Accreditation:** 2007/01/215
SAQA Unit standard ID: 252037 | **Title:** Build teams to achieve goals and objectives | Level 5, **SAQA Unit standard ID:** 110021 | **Title:** Achieve personal effectiveness in business environment | Level 4 and **SAQA Unit standard ID:** 15234 | **Title:** Apply efficient time management to the work of a department/division/section | Level 5

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Week 1	
<ul style="list-style-type: none">• Green Belt Review and Exercises• Central Limit Theory• Project Presentations• Advanced MSA• Advanced Capability• Project Presentations• Multiple Regression	<ul style="list-style-type: none">• Nested Anova• DOE Planning• Project Presentations• Randomized Block Design• Full Factorials• Project Planning & Deliverables• Project Review & Support
Week 2	
<ul style="list-style-type: none">• Week 1 Review• Factorial Designs• Fractional Factorial Designs• General Factorial Designs• Sample Size• Project Reviews• Optimization Designs	<ul style="list-style-type: none">• Multiple Responses• EVOP• Competition• Change Management• Control Methods• Final Reviews

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Champion

Course only runs for a group of 7 or more delegates

The Six Sigma Champion Leadership program takes a verified approach for enhancing business performance. Essentially, this is recognized as Six Sigma. Our integrated and methodical style of process improvement concentrates on results which are based on the statistical examination of data rather than theories. The purpose of Six Sigma is to finish projects with quantifiable business results that yields wither a soft-money or hard-money saving for the business.

Managers or administrators who patron projects and make sure that Six Sigma processes are being put into an organization are known as “Champions”. These people are provided training in regards to the fundamentals of Six Sigma methods. The primary objective of Six Sigma Champion Leadership training is to educate the individuals in the class and provide them with the necessary skills in order to select useful projects that are centered on the mission and objectives of the company. Moreover, Champions not only have to choose which projects are meaningful to the larger aims of the business, but they have the task of selecting and teaching Six Sigma project leaders. These project leaders are called “Belts”. The Champion’s main function is to lend support and implement Six Sigma processes and methods within the company while making sure that the process correlates with larger business objectives and initiatives. Six Sigma South Africa is a subsidiary of 2KO International in Cape Town, conducting instructor led Six Sigma training and certification for blue chip companies in and around Africa.

Our On-Site Six Sigma Champion Leadership Training Covers:

- Live contact with a certified Master Black Belt teacher that has actual real-world experience with Six Sigma projects
- Assistance involving implementing Six Sigma
- All-inclusive samples of projects and Detailed Project Charter models
- Reduced rate for any kind of onsite implementation assistance
- There is a snack given out during the morning hours and afternoon
- An enticing light lunch is given to students every day except on Fridays for most localities
- We provide manuals to our students, and they are color and laser printed
- Practice exercises that are educational, entertaining and fun!
- Gratifying environment suitable for training and one that students appreciate

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



2 Day – Leadership Champion Training for Six Sigma-Schedule

- Introduction to Six Sigma
- Tactics and advantages involving Six Sigma
- How to begin with Six Sigma
- Project definition for Six Sigma
- Six Sigma Example Projects
- Process involving project selection
- Six Sigma Distribution and how to choose Black Belts
- Development of metrics with Six Sigma Projects
- Recognition of Six Sigma
- Learning what Lean Six Sigma is all about
- Incorporation of Six Sigma and Lean methods
- Fundamental tools of Six Sigma
- Systems of Measurement
- Capability Study
- How to apply Six Sigma to Business Processes
- Keeping track and the management of Six Sigma Projects
- Handling alterations within the Six Sigma Process
- Monetary Strategies for Six Sigma Projects

Pre-requisite:

Black Belt

Course Duration:

2 days (full time)

Course only runs for a group of 7 or more delegates

Venue:

Onsite Training

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Design for Six Sigma

Design for Six Sigma (DFSS) uses Six Sigma methodology to develop products, services, and processes which result in increased efficiency, added profitability, and greater customer satisfaction. DFSS or Design for Six Sigma uses Six Sigma methodologies and tools during the development phase of a new product, service, or process. Furthermore, our program goes one step further by including “the voice of the customer” and simulation or testing techniques that are used to show the effectiveness or weaknesses of new designs.

Although individuals without prior knowledge can take the DFSS program, students who are already versed in the Six Sigma methodology will often receive the most benefits. In many cases, students will complete a Six Sigma Green Belt or Black Belt course, while the DFSS – Design for Six Sigma program supplements learning and provides more knowledge.

With this in mind, who should attend Design for Six Sigma (DFSS)?

This program is perfectly suited for students involved in marketing or product development. It is also a great match for anyone who is tasked with implementing a new process, developing a new product, or creating a new service. As mentioned above, students with no prior experience may join this training, but Green Belts and Black Belts who are familiar with Six Sigma methodologies may get the most benefit from these concepts.

Throughout this training, we will look at proven methods to determine a client’s needs. As with any Six Sigma methodology, this is done through statistical analysis by translating the information into QFD used within the design model creation and valuation. There is no guesswork in Six Sigma or Design for Six Sigma.

Six Sigma South Africa is a subsidiary of 2KO International in Cape Town, conducting instructor led Six Sigma training and certification for blue chip companies in and around Africa.

Course Duration:

5 days (full time)

Course only runs for a group of 7 or more delegates

Venue:

Onsite

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Six Sigma IT

This program has been created to deliver real-world examples along with optimal practices for the industry, including Software Application Development and IT Management, and integrating precise Six Sigma Lean tools for maximum performance. It also integrates foundational comprehension regarding Business Process Management as a discipline and the role that Information Technology plays in these programs. The courses are taught by qualified Lean Six Sigma and IT Experts.

Focused toward organizations and individuals who desire to streamline his or her MIS/IT functions and augment overall customer satisfaction, Six Sigma South Africa offers IT training using successfully-proven techniques. This program is delivered over four successive days. No Preconditions are needed for the Lean Six Sigma IT program.

Key Learning Goals:

- Comprehend the critical things so you can measure in engineering situations.
- Comprehend opportunity areas in order to augment quality and speed.
- Recognize what makes software dissimilar to various other Six Sigma applications.
- How to rapidly detect the highest error-prone areas within the process.
- Know the large areas to control when it comes to maturity frameworks (ITIL and CMM).
- How to succeed and control the SDLC without causing delays.
- Be able to overcome the infamous “not invented here” syndrome.
- Comprehend how to utilize repetitive DMADV techniques within the SDLC.
- Software Topics and Lean Six Sigma IT.
- Understand the application of Six Sigma methods in CMM frameworks.
- Be able to utilize Six Sigma within ITIL & CobiT governance contexts
- Use Six Sigma methods when it comes to Iterative Software Development Lifecycles, also known as SDLC.
- Understand the famous DMAIC method for software product engineering.
- Learn the DMAIC method for package creation or custom deployments.
- Develop software by utilizing QFD, DFSS and Kano Analysis.

Obtain adoption regarding Six Sigma within the MIS/IT groups.

Software Topics and Lean Six Sigma IT

- The application of Six Sigma methods in CMM frameworks
- Six Sigma utilization within ITIL & CobiT governance contexts

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- How to use Six Sigma methods when it comes to Iterative Software Development Lifecycles, also known as SDLC
- The famous DMAIC method for software product engineering
- DMAIC method for package creation or custom deployments
- Developing software by utilizing QFD, DFSS and Kano Analysis
- Obtaining adoption regarding Six Sigma within the MIS/IT groups
- IT Project Manager receiving techniques of Six Sigma

Six Sigma South Africa is a subsidiary of 2KO International in Cape Town, conducting instructor led Six Sigma training and certification for blue chip companies in and around Africa.

Pre-requisite:

IT and Six Sigma expertise

Course Duration:

4 days (full time)

Course only runs for a group of 7 or more delegates

Venue:

Onsite

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Green Process Management

Are you someone that is not sure about what it means to be “Going green?” Do you need to know about Green for business operations in contemporary society? No matter what kind of business you are involved in, whether it is the service industry or industrial sector, you have to have a good comprehension of what Green is and its associated environmental necessities and how this plays a role within your company and the work you do.

The term “Going green” has become a common catchphrase over the last few years, and now more than ever, numerous businesses are making the claim that their company is “green.” Whether or not this is actually true really depends on your understanding of what “green” truly means. Ironically, many people use the term “green” without a clue to its integral meaning. Only the small picture of this word is seen, not the larger one. Many people have various belief systems regarding climate change and impacts from businesses that produce toxins into the atmosphere (and we are not only talking about your typical factory setting that is burning waste and emitting smoke from the tall chimney stack). The concept of “green” will be sticking around regardless of where your belief system lies. In modern day society, it is becoming more apparent that in order to stay successful, your company may have no alternative but to address this problem and the environmental issues that have made headline news. Now is the perfect time for your business to “go green.”

Course Duration:

5 days (full time)

Course only runs for a group of 7 or more delegates

Venue:

Onsite

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Office and Service

Take Lean beyond the Shop Floor to Improve Profitability

Administrative functions account for sixty to eighty percent of the cost of meeting customer demand. Streamlining and eliminating waste from your office and administrative processes using Lean concepts, tools, and methods will help you achieve significant bottom-line savings. This five-day certificate program presents a structured way to understand how a firm delivers value in its services, how to prioritize operational improvement opportunities, and how to link them to strategic priorities.

Key Learning Outcomes

- Identify what you need to do better in your services to support your strategy
- Understand how to improve efficiency of your office/service processes
- Create an action plan for your Lean improvement initiative
- Translate your Lean efforts into financial terms
- Learn easy hands-on tools that anyone can implement in an office/back-office/service setting

Experienced Faculty

This experiential course focused on Lean office and business process improvement. Our instructors have years of industry experience coaching and training Lean implementations.

Hands-On Practice and Real World Examples

Hands-on simulations supplement lectures, exercises, and case studies to make this training meaningful and enlightening. We prepare you to take these tools and techniques back to your facility so you can begin implementing and transforming your traditional operations to Lean.

Course only runs for a group of 7 or more delegates

Venue:

Onsite

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Product Development

Capture the Potential of Lean Thinking

Learn essential strategies and key tools that will decrease time-to-market, reduce waste, streamline product development processes, enhance product quality, and fully integrate new product designs into a Lean production environment.

This five-day program trains product development engineers and new product team members in Lean concepts, tools, and methods essential to the Toyota Product Development System (TPDS). Each day offers a set of learning objectives that enable participants to understand and appreciate the Lean product development process and its tools. Collectively, these objectives prepare participants to implement Lean development in their organization.

Lean Product Development Program Component

Overview of Lean Product Development:

- Introduction to the Toyota Product Development System: How It Works and Key Benefits
- Problems with traditional product development
- Overview of workflow within a lean product development system
- The role of the customer, employees and organization
- Traditional Lean Product Development Simulation
- Illustrates typical wastes
- Tracks metrics associated with traditional wastes

The Lean Tools of Toyota Product Development System:

- Principles of Nemawashi
- Principles of Ringi
- Creating effective A3 reports for Lean Product Development
- Hoshin management

Lean Value Stream Mapping for Lean Product Development:

- Introduction to value stream mapping
- Mapping the current state
- Lean product development principles

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- Mapping the future state
- Creating an implementation plan

Survey of Advanced Design Tools in a Lean Product Development System:

- Error proofing
- Process for systematic error proofing
- Definitions and applications

Tools for Lean Launch and Implementation Planning

- Introduction to the 3P
- Lean Manufacturing Cell Design
- Material Flow Planning
- Lean Part Presentation

Lean Product Development

- Simulations
- Apply lean tools and techniques to the product development process
- Track the metrics and realize the impact

Course Duration:

5 days (full time)

Course only runs for a group of 7 or more delegates

Venue:

Onsite

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Two-Day Toyota Kata

Six Sigma South Africa now supplies Toyota Kata training in Johannesburg, South Africa. If you need more detailed information about this course, please download the course outline at the bottom of the page. If you need more information about our Six Sigma courses, onsite training, course specials, different course requirements or six sigma consultation.

Course only runs for a group of 7 or more delegates

Participants Benefits

During this workshop, participants will:

- Obtain a basic understanding of the Toyota Improvement kata trajectory (i.e., Vision/Challenge, Current Condition, Target Condition, Obstacles, PCDA)
- Have an appreciation for the value of the Toyota Coaching Kata Methodology (i.e., how the value Adders, Learner and first and second Coaches interact)
- Gain an appreciation of how the Toyota Improvement and Coaching Kata can rejuvenate a Lean Initiative and supply a basis for moving confidently/successfully into the future.

Course Duration: 2 days (full time)

Course Overview:

Day One

- Kata Overview
- Direction
- Current Condition
- Round 1 Simulation (block diagrams, obstacles, exit-cycle times, run charts)
- Round 2 Simulation (planned cycle time, run charts, current conditions)
- Target Condition
- PDCA Cycles (systematic iteration)
- Round 3 Simulation (1st PDCA on a selected obstacle)

Day Two

- Coaching Kata
- Round 4 Simulation (2nd PDCA on a selected obstacle)
- Participants experience the roles of Learners and 1st Coach
- Overview of Example Kata Journeys. Examples of La-Z Boy and other company Kata deployments and details of their journey
- Participants share individual/team observations and participate in group Q&A

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



9. Online Courses

Six Sigma White Belt

Anywhere Online Training

Exam	None
Certification	White Belt
Cost	R1499.00
Training Available	Online 30 days

Course Info:

This is the full, completely online White Belt course offering the student an overview and introduction to Six Sigma and the DMAIC methodology. With White Belt, you will be able to begin your journey toward the professional competencies of the Yellow Belt, Green Belt, Black Belt, and Master Black Belt. After obtaining this first level belt, you can become a qualified team member of a Green Belt or Black Belt project.

- Access to the training manual in electronic format with the ability to print a copy for your own use.
- Ability to upgrade at a later date to the Yellow, then Green and then Black Belt online programs, at a discounted rate
- Once we process your payment we will provide you with your personal online training account.

Online Program Includes:

- 30 days of access to online program materials
- Online Quizzes after every module
- Six Sigma White Belt Training Certification upon completion of Online Training
- Downloadable Manual for the program

Online Program Requirements:

- A computer with online access to the internet with a browser
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (provided free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent
- For all the White Belt program no statistical software application is required.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Online Course syllabus:

- Six Sigma Overview
- Six Sigma Define Phase
- Six Sigma Project Deployment

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Yellow Belt

Anywhere Online Training

Exam	None
Certification	Yellow Belt
Cost	R3799
Training Available	Online 90 DAYS
Inquiries about course	Email info@2ko.co.za

Course Info

This is the full, completely online Yellow Belt course offering the student an overall insight into the techniques of Six Sigma, its metrics, and basic improvement methodologies. A Yellow Belt participates as a core team member or subject matter expert (SME) on a project or projects. Six Sigma Yellow Belt training provides an introduction to process management and the basic tools of Six Sigma.

Six Sigma Yellow Belt Online Features

- Access to the training manual in electronic format with the ability to print a copy for your own use.
- Ability to upgrade at a later date to the Green and then Black Belt online programs.
- Once we process your payment we will provide you with your personal online training account.

Online Program Includes

- 90 days of access to online program and materials
- Digital Manual for the program with the ability to print 1 copy for personal use (requires use of the security program)
- Online Quizzes after every module
- Six Sigma Yellow Belt Training Certification upon completion of Online Training

Online Program Requirements

- A computer with online access to the internet with a browser
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (provided free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- For all the White Belt program no statistical software application is required.
- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Online Course Syllabus:

- Six Sigma Overview
- Six Sigma Define Phase
- Six Sigma Project Deployment
- Process Mapping
- Cause and Effect
- FMEA

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Green Belt: SigmaXL-based
/ Anywhere Online Training

SigmaXL is a commonly used tool for statistical and graphical data analysis. It is also often used in Six Sigma training and implementation. In addition to being a standalone software package, SigmaXL is also included in the DiscoverSim software package, created by SigmaXL Inc.

Certification	Six Sigma Green Belt SigmaXL
Price	R17 500
Accreditation	IASSC, MICT SETA and Six Sigma council MICT SETA Accreditation: 2007/01/215 Unit Standard: 243816 Developing a project quality management plan for a simple to moderately complex project Level 5
Training Available	Online 1 year access
Inquiries about course	Email info@2ko.co.za

About this course

This online, on demand Six Sigma Green Belt training program using SigmaXL software examples leads to obtaining your Six Sigma Green Belt certificate. Upon completion, this program will help you strengthen your organization by understanding, interpreting and using the core concepts of Six Sigma. Designed for professionals with little or no prior experience with Six Sigma methodologies, this course helps develop critical skills required for participating in successful Six Sigma projects.

Product Description

- Digital version of the same, complete Green Belt program delivered to our live classroom attendees
- On demand, 24/7 access for ONE year of access to professionally narrated online training courses
- ONE year of access to the training manual in electronic format with the ability to print a copy for your own use.
- Perpetual License of SigmaXL Software for either Mac or PC
- Numerous Project Templates and Job Aids for Six Sigma Projects

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



On Completion of the course you would need to complete

- 1 X 90 minutes' online exams done through 2KO International
- 3 months to complete a work based project through 2KO International
- Email support provided by Six Sigma Expert
- Additional access to 2KO International Library with additional Six Sigma resources
- Certification provided on successful completion of Exam and Project

Online Program Requirements

- A computer with online access to the internet with a browser
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (provided free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent
- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Online Course Syllabus

Six Sigma Green Belt Session 1

Lean Six Sigma Overview
Define Phase
Six Sigma Project Deployment
Process Mapping
Cause & Effect Matrix
Failure Mode Effect Analysis (FMEA)
Basic Statistics
Introduction to SigmaXL
Basic Quality Tools
Introduction to Statistical Process Control
Measurement Systems Analysis
Capability
MultiVari Planning
Lean Tools
Green Belt Wrap Up and Action Planning

Six Sigma Green Belt Session 2

Hypothesis Testing
Correlation and Regression
t-Test
ANOVA
Chi Square Test
DOE
Mistake Proofing
Control Plan
Documentation
Green Belt Wrap Up Session 2
Comprehensive

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Green Belt: Minitab-based
Minitab-based | Anywhere Online Training

Certification	Green Belt
Price	R18 995
Accreditation	IASSC, MICT SETA and Six Sigma council MICT SETA Accreditation: 2007/01/215 Unit Standard: 243816 Developing a project quality management plan for a simple to moderately complex project Level 5
Training Available	Online 1 year access
Inquiries about course	Email info@2ko.co.za

About this course

This online, on demand Six Sigma Green Belt training program using Minitab software examples leads to obtaining your Six Sigma Green Belt certificate. Upon completion, this program will help you strengthen your organization by understanding, interpreting and using the core concepts of Six Sigma. Designed for professionals with little or no prior experience with Six Sigma methodologies, this course helps develop critical skills required for participating in successful Six Sigma projects.

Product Description

- On demand, 24/7 access for ONE year of access to professionally narrated online training courses
- ONE year of access to the training manual in electronic format with the ability to print a copy for your own use.
- Numerous Project Templates and Job Aids for Six Sigma Projects

On Completion of the course you would need to complete

- 1 X 90 minutes' online exams done through 2KO International
- 3 months to complete a work based project through 2KO International
- Email support provided by Six Sigma Expert
- Additional access to 2KO International Library with additional Six Sigma resources
- Certification provided on successful completion of Exam and Project

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Online Program Requirements

- A computer with online access to the internet with a browser and Microsoft Windows
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (provided free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent
- Minitab software (version 17). A free 30 demo available through Minitab (we have versions of training for Minitab 15 & 16 upon request) (Note: Minitab is not a MAC compatible program)
- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Online Course Syllabus

Six Sigma Green Belt Session 1

Lean Six Sigma Overview
Define Phase
Six Sigma Project Deployment
Process Mapping
Cause & Effect Matrix
Failure Mode Effect Analysis (FMEA)
Basic Statistics
Introduction to Minitab
Basic Quality Tools
Introduction to Statistical Process Control
Measurement Systems Analysis
Capability
MultiVari Planning
Lean Tools
Green Belt Wrap Up and Action Planning Session 1
Comprehensive

Six Sigma Green Belt Session 2

Hypothesis Testing
Correlation and Regression
t-Test
ANOVA
Chi Square Test
DOE
Mistake Proofing
Control Plan
Documentation
Green Belt Wrap Up
Session 2 Comprehensive

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Six Sigma Black Belt: SigmaXL Based
SigmaXL-based Anywhere Online Training

Certification	Black Belt XL
Price	R24 995
Accreditation	<p>IASSC, MICT SETA and Six Sigma council</p> <p>MICT SETA Accreditation: 2007/01/215</p> <ul style="list-style-type: none"> • SAQA Unit standard ID: 252037 Title: Build teams to achieve goals and objectives Level 5 • SAQA Unit standard ID: 110021 Title: Achieve personal effectiveness in business environment Level 4 • SAQA Unit standard ID: 15234 Title: Apply efficient time management to the work of a department/division/section Level 5
Training Available	Online 1 year access
Inquiries about course	Email info@2ko.co.za

About this course

This online, on demand Six Sigma Black Belt training program using SigmaXL software examples leads to obtaining your Six Sigma Black Belt certificate. Upon completion, you will be able to join successful project managers who are saving billions by improving productivity, reducing waste, variation and defects. Since this program includes the full Green Belt curriculum, professionals with little or no prior experience with Six Sigma methodologies can enroll and work towards one of the most sought-after credentials in business today, the Six Sigma Black Belt certificate. As a Six Sigma, Black Belt, your mastery of Six Sigma techniques and strategies will help you lead top-quality projects and mentor Green Belts in your organization, where together you will identify and implement breakthrough improvements for enhanced bottom-line results.

Product Description

- Includes Green Belt
- On demand, 24/7 access for **ONE year of access** to professionally narrated online training courses
- ONE year of access to the training manual in electronic format with the ability to print a copy for your own use.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- Perpetual License of SigmaXL Software for either Mac or PC
- Numerous Project Templates and Job Aids for Six Sigma Projects

On Completion of the course you would need to complete

- 2 X 90 minutes' online exams done through 2KO International
- 6 months to complete a work based project through 2KO International
- Email support provided by Six Sigma Expert
- Additional access to 2KO International Library with additional Six Sigma resources
- Certification provided on successful completion of Exam and Project

Online Program Requirements

- A computer with online access to the internet with a browser
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent
- SigmaXL software. (A free license is included with the purchase of this program)
- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Online Course Syllabus

Six Sigma Green Belt Session 1

Lean Six Sigma Overview
Define Phase
Six Sigma Project Deployment
Process Mapping
Cause & Effect Matrix
Failure Mode Effect Analysis (FMEA)
Basic Statistics
Introduction to Minitab
Basic Quality Tools
Introduction to Statistical Process Control
Measurement Systems Analysis
Capability
MultiVari Planning
Lean Tools
Green Belt Wrap Up and Action Planning
Session 1 Comprehensive

Six Sigma Black Belt Session 3

Green Belt Review
Central Limit Theorem
Advanced MSA
Advanced Capability
Multiple Regression
DOE Planning
Full Factorials
Black Belt Wrap up
Session 3 Comprehensive

Six Sigma Green Belt Session 2

Hypothesis Testing
Correlation and Regression
t-Test
ANOVA
Chi Square Test
DOE
Mistake Proofing
Control Plan
Documentation
Green Belt Wrap Up
Session 2 Comprehensive

Six Sigma Black Belt Session 4

Fractional Factorials Designs
General Factorial Designs
Sample Size Calculations
Optimization Designs
Multiple Response Optimization
EVOP
SPC
Control Plan
Change Management
Black Belt Wrap Up
Session 4 Comprehensive

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Black Belt training: MiniTab Based

Minitab based | Anywhere Online Training

Certification	Black Belt Minitab
Price	R28 995
Accreditation	<p>IASSC, MICT SETA and Six Sigma council</p> <p>MICT SETA Accreditation: 2007/01/215</p> <ul style="list-style-type: none"> • SAQA Unit standard ID: 252037 Title: Build teams to achieve goals and objectives Level 5 • SAQA Unit standard ID: 110021 Title: Achieve personal effectiveness in business environment Level 4 • SAQA Unit standard ID: 15234 Title: Apply efficient time management to the work of a department/division/section Level 5
Training Available	Online 1 year access
Inquiries about course	Email info@2ko.co.za

About this course

This online, on demand Six Sigma Black Belt training program using Minitab software examples leads to obtaining your Six Sigma Black Belt certificate. Upon completion, you will be able to join successful project managers who are saving billions by improving productivity, reducing waste, variation and defects. Since this program includes the full Green Belt curriculum, professionals with little or no prior experience with Six Sigma methodologies can enroll and work towards one of the most sought-after credentials in business today, the Six Sigma Black Belt certificate. As a Six Sigma Black Belt, your mastery of Six Sigma techniques and strategies will help you lead top-quality projects and mentor Green Belts in your organization, where together you will identify and implement breakthrough improvements for enhanced bottom-line results.

Product Description

- Digital version of the same, complete Black Belt (includes Green Belt) program delivered to our live classroom attendees
- On demand, 24/7 access for ONE year of access to professionally narrated online training courses

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



- ONE year of access to the training manual in electronic format with the ability to print a copy for your own use.
- Numerous Project Templates and Job Aids for Six Sigma Projects

On Completion of the course you would need to complete

- 2 X 90 minutes' online exams done through 2KO International
- 6 months to complete a work based project through 2KO International
- Email support provided by Six Sigma Expert
- Additional access to 2KO International Library with additional Six Sigma resources
- Certification provided on successful completion of Exam and Project

Online Program Includes

- Secure PDF Viewer from LockLizard (free)
- Digital Manual for the program with the ability to print 1 copy for personal use (requires use of the security program)
- Online Quizzes after every module.

Online Program Requirements

- A computer with online access to the internet with a browser and Microsoft Windows
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Secure PDF Viewer from LockLizard (free)
- Flash Player
- Access to Microsoft Office 2000 or newer or equivalent
- Minitab software (version 17). A free 30 demo available through Minitab (We have versions of training for Minitab 15 & 16 upon request) (Note: Minitab is not a MAC compatible program)
- You are not to provide your login information to other users. Your online account is for your personal use.

Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Online Course Syllabus

Six Sigma Green Belt Session 1

Lean Six Sigma Overview
Define Phase
Six Sigma Project Deployment
Process Mapping
Cause & Effect Matrix
Failure Mode Effect Analysis (FMEA)
Basic Statistics
Introduction to Minitab
Basic Quality Tools
Introduction to Statistical Process Control
Measurement Systems Analysis
Capability
MultiVari Planning
Lean Tools
Green Belt Wrap Up and Action Planning
Session 1 Comprehensive

Six Sigma Black Belt Session 3

Green Belt Review
Central Limit Theorem
Advanced MSA
Advanced Capability
Multiple Regression
DOE Planning
Full Factorials
Black Belt Wrap up
Session 3 Comprehensive

Six Sigma Green Belt Session 2

Hypothesis Testing
Correlation and Regression
t-Test
ANOVA
Chi Square Test
DOE
Mistake Proofing
Control Plan
Documentation
Green Belt Wrap Up
Session 2 Comprehensive

Six Sigma Black Belt Session 4

Fractional Factorials Designs
General Factorial Designs
Sample Size Calculations
Optimization Designs
Multiple Response Optimization
EVOP
SPC
Control Plan
Change Management
Black Belt Wrap Up
Session 4 Comprehensive

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Champion training

Certification	Champion
Price	R5995
Training Available	Online 90 days
Inquiries about course	Email info@2ko.co.za

About this course

The success of a Lean Six Sigma business strategy is dependent upon the support and actions of Lean Six Sigma Champions. Typically, Champions are senior managers that have access to organizational resources needed to drive and support the implementation of Six Sigma projects. Champions help remove any roadblocks the Lean Six Sigma Black Belts encounter, and in general “champion” the cause and needs of the black belts to deliver maximum benefit to the organization.

In this training course, you’ll learn the skills needed to mentor and support Black Belts and their projects, as well as learn the process to select effective Black Belt candidates and projects that will support organizational goals. We’ll also outline the organizational roles and responsibilities and deployment structure needed to lead to project success.

We emphasize the strategy and process of the five phases of the Six Sigma implementation DMAIC (define, measure, analyze, improve, and control) and proper use of statistical tools at each phase so that you will be able to “ask the right questions” when giving leadership and support to Black Belts.

In addition to learning the implementation process, we also cover the following topics:

- Gain insight into the background and intended use of a Six Sigma business strategy
- Understand how Six Sigma compares to other methods
- Develop a strategy for integrating Six Sigma into the operating plan
- Use the process for establishing Six Sigma project and Black Belt selection criteria
- Become familiar with the proper use of statistical methods
- Become proficient in guiding project leaders (Black Belts, Green Belts) through each phase of the DMAIC

Who Should Register?

Mid to upper-level managers responsible for top-line growth will gain skills to implement cost reductions and improved organizational capability and capacity.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Prerequisites

Black Belt

What You Will Receive

- Access to the online Champion training for 90 days in our online Learning Center portal
- Access to the online companion manual, delivered using LockLizard for secure access
- Downloadable library of Six Sigma templates and files to use and modify as you see fit
- Certificate of completion upon successfully passing the final comprehensive exam

Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Methodology (Level 1 -3) and Tools

Certification	Lean Methodology (Level 1 -3) and Tools
Price	R13 995
Training Available	6 months
Inquiries about course	Email info@2ko.co.za

Online Program Level 1 -2 Includes:

- 30 days of access the Online Program Materials Level 1
- 90 days of access the Online program materials Level 2
- Downloadable Manual for the course

Online Program Level 3 Includes:

- 6 months of access to Online program materials
- Lean Methodology & Tools course Certificate printable upon completion of Online Training
- Secured Downloadable Manual for the course (Security program included)

Online Program Requirements

- A computer with online access to the internet with a browser and Microsoft Windows
- Sound Card and Speakers
- Display Settings of at least 1024 X 768 Screen Size
- Adobe Acrobat Reader
- Flash Player
- Access to Microsoft Office 2000 or newer
- You are not to provide your login information to other users. Your online account is for your personal use.
- Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Lean Level 1:

- Integrating Six Sigma & Lean
- Muda Elimination

Lean Level 2:

- Integrating Six Sigma & Lean
- Muda Elimination
- Current Value Stream Mapping
- Future State Value Stream Mapping
- Kaizen Lean Events
- SMED

Lean Level 3:

- Integrating Six Sigma & Lean
- Muda Elimination
- Current Value Stream Mapping
- Future State Value Stream Mapping
- Kaizen Lean Events
- SMED
- Pull and Kanban
- Poka Yoke
- 5S
- Lean Management

Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za



Design for Six Sigma (DFSS)

Certification	Design for Six Sigma
Price:	R 2 995
Training Available	3 month access
Inquiries about course	Email info@2ko.co.za

Design for Six Sigma (DFSS) is about developing a new product or service that is defect free AND meets customer needs and expectations. DFSS combines many of the tools that are used to improve existing products or services and integrates voice of the customer and simulation methods to predict new process and product performance. Six Sigma training for new products is called Design for Six Sigma Training or DFSS Training.

This course is well suited for Marketing and Product Development professionals with little to no exposure to Six Sigma methodologies and current Six Sigma Green or Black Belts will also benefit from the materials included.

What you'll get:

- Digital version of the same, complete Design for Six Sigma program delivered to our live classroom attendees
- On demand, 24/7 access for 3 months of access to this professionally narrated online training course
- 3 months of access to the training manual in electronic format with the ability to print 1 copy for your own use.

Modules in this training include:

- DFSS – StageGate Process
- Value Propositions
- Creating Value for Customers
- Customer Involvement
- Voice of the Customer (VOC) Overview
- Creating Customer Requirements
- Introduction to QFD (Quality Function Deployment)

Please note there are no refunds once the program has been started.

Six Sigma South Africa | 2KO International | Lean & Six Sigma Training Guide

Contact us on info@2ko.co.za

Tel no: 021 426 5300

www.sixsigmasouthafrica.co.za