

Six Sigma Yellow Belt Certification Exam and Preparation Course

The Six Sigma Yellow Belt is an ASQ certification aimed at those new to the world of Lean and Six Sigma. Yellow belts can be entry-level employees or executives who want an overview of Lean, Six Sigma and (DMAIC) process. The Yellow Belt certification requires one year of work experience. The Six Sigma Yellow Belt is a lifetime certification. There are no recertification requirements.

The Six Sigma Yellow Belt Certification is a two-hour, open book, 75 - question examination. Exams are conducted twice a year, in March and October. The exam fee is \$189 for ASQ Members and \$339 for non-members. The Six Sigma Yellow Belt Exam covers five areas, as follows:

1. Six Sigma Fundamentals (21 Questions)

The purpose of six sigma (reducing variation), the DMAIC methodology and the value of six sigma to the entire company

- A. **Lean principles** including waste elimination, Just-In-Time, Poka-Yoke, Kanban and Value Stream Mapping (VSM)
- B. Six sigma roles and responsibilities including team members, yellow belt, green belt, black belt, master black belt, process owner, champion and sponsor.
- C. **Team Basics** including stages of team development: forming, storming, norming, performing, and adjourning. Team decision-making tools: brainstorming, multi-voting, and nominal group technique. Meeting agendas, meeting minutes, and project status reports.
- D. **Quality tools** including: Pareto charts, cause and effect diagrams, flowcharts, run charts, check sheets, scatter diagrams, and histograms. Six sigma metrics such as: defects per unit, defects per million opportunities, rolled throughput yield, cycle time, and cost of poor quality.

2. Define Phase (12 Questions)

Project identification including the voice of the customer and how customer needs are translated into quantifiable, critical-to-quality characteristics. Identification of end users, subject matter experts, process owners and other people or factors that will impact and be affected by a project. Use SIPOC (suppliers, inputs, process, outputs, customers) to identify and define important elements of a process.

- A. **Project Management** basics such as project charter: problem statement, project scope, baseline data, and project goal. The benefits of a communication plan. Project planning tools such as work breakdown structure (WBS) and Gantt charts used to plan and monitor projects.
- B. **Project management** tools such as: activity network diagrams, affinity diagrams, matrix charts, and tree diagrams. Project tollgate or phase reviews used throughout the DMAIC lifecycle.

3. Measure Phase (15 Questions)

- A. Basic statistics - measures of central tendency (mean, median, mode) and measures of dispersion (standard deviation, range, variance).
- B. Data collection plans including sources, methods and frequency. Data collection techniques including surveys, interviews, check sheets, and checklists.
- C. Measurement system analysis (MSA) terms and tools such as precision, accuracy, bias, linearity, and stability. Gauge repeatability & reproducibility

4. Analyze Phase (15 Questions)

Process analysis tools such as 5S and value analysis. Failure mode and effect analysis (FMEA) used to identify potential process failures

- A. Root cause analysis - how the 5-whys, process mapping, force-field analysis and matrix charts can be used to identify the root causes of a problem.
- B. Data analysis including normal and binomial distributions and how their shapes (skewed and bimodal) can affect data interpretation. Common and special cause variation
- C. Correlation and regression analysis including the relationships between variables and how regression analysis is used to predict outcomes.
- D. Hypothesis testing including null, alternative, type I and type II errors

5. Improve and Control Phases (12 Questions)

Improvement techniques such as kaizen and kaizen blitz, Plan-do-check-act (PDCA) cycle and Cost-benefit analysis

- A. Control tools and documentation including importance of a control plan for maintaining improvements. How X R charts are used for monitoring and sustaining improved processes.
- B. The importance of documenting changes to a process and communicating those changes to stakeholders.

The CSSYB Exam Preparation Course

The Six Sigma Yellow Belt Certification Preparation Course covers Six Sigma Fundamentals, Team Basics and each phase of the DMAIC Process. The course includes lecture, group discussion, team exercises, video examples, Problem solving tools, statistics, exam question strategies, sample exams and preparation of exam materials. As a result of course participation, homework and preparation of exam materials, students should be very well prepared to pass the Yellow Belt Exam.

The course will be conducted on 7 Saturdays from 8 a.m. to 1PM. Classes will be held at Phenomenex's Training Facility, located at 2341 West 205th Street, Torrance, CA 90501.

Course Fees:

Non Member: \$500

ASQ Member: \$350

ASQ Unemployed: \$200

#	Class Dates	Instructor(s)	Primer Section and Topic
1	August 8, 2015	Lane Parrott	I Certification Overview, Sample Exam, III Team Basics
2	August 15, 2015	Joe DeSimone	II Six Sigma Fundamentals
3	August 22, 2015	Joe DeSimone	II Six Sigma Fundamentals – Continued
4	August 29, 2015	Lane Parrott	IV Define
5	September 5, 2015	Lane Parrott	V Measure
6	September 12, 2015	Joe DeSimone	IV Analyze
7	September 19, 2015	Lane Parrott	VII Improve and Control, Review & Practice Exam

Instructors:

- **Joe DeSimone** – CSSBB, CQE, CRE, CMQ/OE, CQA, etc. Consultant, Instructor and co-author of the Certified Six Sigma Black Belt Primer.
- **Lane Parrott** - CSSBB, CQE, CQA, CMQ/OE, Instructor and Quality Assurance Manager

Deadlines and Action Items:

- ✓ July 24, 2015 - Register for CSSYB Preparation Course, by sending an E-Mail with ASQ Member Number, and Cell Phone Number to ASQ Section 700 Education Chair, Lane Parrott at laneP@phenomenex.com NOTE: Classes without a minimum of five (5) registered students will be cancelled.
- ✓ July 31, 2015 – Purchase CSSYB Primer (\$60) from Quality Council of Indiana at 1-800-660-4215 or www.qualitycouncil.com
- ✓ August 8, 2015 - First class starts promptly at 8:00 a.m. bring the CSSYB Binder, pencil, highlighter, and a check made out to ASQLA in the amount of \$350. Credit Cards are not accepted.
- ✓ August 14, 2015 - ASQ Exam Application Deadline! Go to www.asq.org then click on Certification. Under get started, click on Apply for Certification. Select the Yellow Belt and complete the application on line. You may upload your resume and pay by credit card. Fee is \$189 if you are an ASQ Member. Call 1-800-248-1946 for help.
- ✓ August 15, 2015 – Last day for course payment
- ✓ October 3, 2015 – CSSYB Certification Exam