Clemson University - Center for Corporate Learning
1 North Main Street, 7th Floor,
Greenville, SC 29601
http://www.clemson.edu/online/
Contact: Juanita Durham | 864.656.3984 | jdrhm@clemson.edu

Lean Six Sigma Green Belt (CSSGB)

Format:	Self-Pace Online / eLearning
Program Duration:	6 Months
Course Contact Hours:	150

The Six Sigma Green Belt (CSSGB) Specialist

Six Sigma Specialists are tasked with supporting the project lead, most likely a Six Sigma Black Belt and provides a stepping stone to this advanced classification as well. Successful participants in this class will be poised to work on small, defined Six Sigma projects within an organization, requiring less oversight by the assigned manager (presumably a Six Sigma Black Belt). This ability to free up supervisory time reduces costs and increases productivity for entire projects, which presents significant value to both current and prospective employers. Whether in healthcare, finance, government, manufacturing or any other industry, Six Sigma Green Belt training is ideal for current professionals looking toward advancement in their current position as well as individuals looking to gain employment with any firm that utilizes these concepts and techniques.

The Six Sigma Green Belt (CSSGB) Program

The Six Sigma Specialist program helps professionals to strengthen organizations by employing the core concepts of Six Sigma geared toward enhanced problem-solving skills with an emphasis on the DMAIC (Define, Measure, Analyze, Improve, and Control) model. The Six Sigma Specialist program presents an overview of the key concepts for the Six Sigma Green Belt Certification exam. Students will explore processes and team management, operational metrics, and key tools and techniques to achieve process excellence. This program is designed to prepare students to sit for the Six Sigma Green Belt Certification exam offered by the American Association for Quality.

Education and National Certifications

- Students should have or be pursuing a high school diploma or GED.
- There are no state approval and/or state requirements associated with this program.
- National Certification:
  - **American Society for Quality (ASQ) Certified Six Sigma Green Belt (CSSGB) Exam**
  - **The IASSC Certified Lean Six Sigma Green Belt™ (ICGB™)**
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- The Six Sigma Green Belt certification requires 3 years of work experience in one or more areas of the Six Sigma Green Belt Body of Knowledge.
- Work experience must be in a full time, paid role. Paid intern, co-op or any other course work cannot be applied

Six Sigma Green Belt (CSSGB) Program Objectives

At the conclusion of this program, students will be able to:

- Justify the value of Six Sigma metrics
- Analyze customer information within a potential Six Sigma project
- Apply the design for Six Sigma (DFSS) process
- Apply theories of team dynamics to improve Six Sigma process
- Apply the Define-Measure-Analyze-Improve-Control (DMAIC) process
- Generate process management documentation
- Analyze the effects of statistical process control (SPC) on performance Analyze process capability in the context of performance
- Apply design of experiments (DOE) to a potential project

Six Sigma Specialist Program Detailed Student Objectives:

SIX SIGMA METRICS

- Describe the four key business drivers of Six Sigma
- Discuss the value of Six Sigma to a company
- Use Six Sigma metrics and scorecards to evaluate projects

SIX SIGMA CUSTOMERS

- Describe the goals of Six Sigma
- Describe methods to collect customer data
- Utilize customer data to provide customer feedback
- Apply quality function deployment (QFD) to a project

DESIGN FOR SIX SIGMA

- Describe how organizations design for Six Sigma (DFSS)
- Explain the differences between design and process failure mode and effects analysis (DFMEA and PFMEA)
- Describe failure mode and effects analysis (FMEA)
- Explain how quality function deployment (QFD) relates to Six Sigma (DFSS) process

SIX SIGMA QUALITY MASTERS

- Identify key individuals in the quality field
- Explain how the teachings of key individuals in the quality field affected the Six Sigma methodology

SIX SIGMA PROBLEM-SOLVING

- Explain the Define-Measure-Analyze-Improve-Control (DMAIC) problem-solving process
- Use Define-Measure-Analyze-Improve-Control (DMAIC) to solve problems in business

SIX SIGMA PROCESS MANAGEMENT

- Identify the relationships between process input and output variables
- Use a process map to define the scope of a project

SIX SIGMA CONTROL CHARTS

- Describe the goals and benefits of statistical process control (SPC)
- Describe rational subgrouping
- Complete a control chart

SIX SIGMA PROCESS CAPABILITY

- Describe the process of designing and conducting process capability studies
- Differentiate between process performance and specifications
- Compute process capability and process performance indices

SIX SIGMA LEAN TOOLS

- Describe Six Sigma lean tools
- Explain how lean tools relate to lean manufacturing