

# PROFESSIONAL AND CONTINUING EDUCATION (NON-CREDIT)

## LEAN SIX SIGMA BLACK BELT CERTIFICATE

Lean Six Sigma is a combination of two popular continuous improvement methods—Lean and Six Sigma—that pave the way for operational excellence. It relies on a collaborative team effort to improve performance by systematically removing waste and reducing variation. Westminster's Lean Six Sigma Black Belt Certification consists of a blended program that is focused on getting students to translate the knowledge gained through online learning and practice to real world skills and expertise. Students will learn the Lean Six Sigma Black Belt body of knowledge, practice techniques for both quantitative and non-quantitative analysis, and gain the team leadership skills necessary to get projects across the goal line. Students will be immersed in online training, several online simulations, including a comprehensive simulation that takes them through the DMAIC process as a project. In order to receive the LSSBB certification, students are required to take a comprehensive examination at the completion of the course. Students are encouraged to have a personal project that they are working on throughout the course. After completing this 800 clock hour certification program, students should be able to:

- Communicate using Lean Six Sigma concepts.
- Think about your organization as a collection of processes, with inputs that determine the output.
- Relate Lean Six Sigma concepts to the overall business mission and objectives.
- Use the concept of a Sigma Level to evaluate the capability of a process or organization.
- Understand and apply the five step DMAIC model as a framework to organize process improvement activity.
- Employ a wide range of process improvement techniques, including Design of Experiments, within the DMAIC model.
- Recognize the organizational factors that are necessary groundwork for a successful Lean Six Sigma effort.
- Employ your Six Sigma skills to lead a successful process improvement project delivering meaningful results to the organization.

Certification program modules consist of the following areas of emphasis:

- Introduction to Lean Six Sigma
- Starting a Project and Leading Teams
- Voice of the Customer
- Mapping the Process
- Measurements and Basic Statistics
- Measurement Systems Analysis
- Charting Process Behavior
- Identifying Root Causes
- Hypothesis Testing
- Design of Experiments
- Improve
- Control
- DMAIC Simulation, Exam Prep, and Final Exam

### Course Description

**Courses are awarded as Continuing Education Units or CEUs. CEUs are generally not transferable to other institutions. Successful completion of certificate program makes participants eligible to receive their Lean Six Sigma Green Belt certificate (proctored, nationally normed, criterion-referenced certification exam will be given as part of the course).**

Lean Six Sigma is a combination of two popular continuous improvement methods—Lean and Six Sigma—that pave the way for operational excellence. It relies on a collaborative team effort to improve performance by systematically removing waste and reducing variation. The Lean Six Sigma Black Belt is an expert team leader, statistical analyst, and project manager - all rolled into one. As a Black Belt in training, students will learn how to master this diverse set of "soft" and "hard" skills so that, when the course is completed, students are able to quickly lead critical projects to successful completion.

The Lean Six Sigma Black Belt Certification is an online program that is self-paced according to students' schedules and time constraints, yet rigorous enough for the rewarded Lean Six Sigma Black Belt (LSSBB) certification to carry weight in today's professional environment. The objective of this certification program is to develop a comprehensive set of skills that will allow students to function effectively as a Lean Six Sigma Black Belt.