



Be challenged. Be willing. Be engaged. Be the change.

Lean Six Sigma Black Belt Certification

Course Code: 18PDLSSBB*

Course Dates: Offered once per year in Fall

Course Cost: \$4995

Prerequisite: Lean Six Sigma Green Belt Certification

The Lean Six Sigma Black Belt online non-credit certificate program is an in-depth, interactive learning experience that combines online self-paced modules with online classroom learning. This certification program trains students in advanced problem solving skills and the statistical tools needed to effectively lead process improvement within their organization. It is based on a case study approach so that participants apply training directly to a real world example.

Online class meetings are held Monday-Thursday from 6:30pm-9:00pm ET on Weeks 3 & 4 and Weeks 7 & 8.

In order to earn your Lean Six Sigma Black Belt, you must score at least a 70% on the final exam, successfully complete an independent Black Belt project* and, not miss more than one of the live lectures. *Your independent project consists of improving a process within your own organization. Your instructor will provide additional information and guidance.

Upon successful completion of this course, students are certified as a Lean Six Sigma Black Belt through James Madison University.

Program Structure

	Hours
Week 1 & 2: Self-paced online modules to prepare for Week 3 & 4 of in-class online training	20
Week 3 & 4: Instructor-led online training class sessions scheduled Monday-Thursday 6:30pm-9:00pm	20
Week 5 & 6: Self-paced online modules to prepare for Week 7 & 8 of in-class online training	20
Week 7 & 8: Instructor-led online training class sessions scheduled Monday-Thursday 6:30pm-9:00pm	20
Total Hours	80

*Outlines are subject to change

For more information, visit our website:

sixsigma.jmu.edu

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Lessons

1. Introduction & Course Review
2. Project Management – Team Management
3. Project Management Tools
4. Project Management – Project Selection
5. Black Belt Project
6. The Customer
7. COPQ – Part 1
8. COPQ – Part 2
9. Business Case Financials
10. Distributions – Continuous 1
11. Distributions – Continuous 2
12. Distributions - Discrete
13. Data Collection
14. Acceptance Sampling – Part 1
15. Acceptance Sampling – Part 2
16. Control Charts – Part 1
17. Control Charts – Part 2
18. Control Chart - Interpretation
19. Process Capability
20. Measurement System Analysis
21. Gage and RR
22. Linear and Multiple Regressions
23. ANOVA
24. Hypothesis Testing
25. Reliability
26. System Reliability
27. Common Improvement Techniques
28. Design of Experiments
29. DOE Class Project
30. Other Improvement Techniques
31. Control Techniques
32. Sustaining Improvements
33. Project Closure
34. Final Examination