



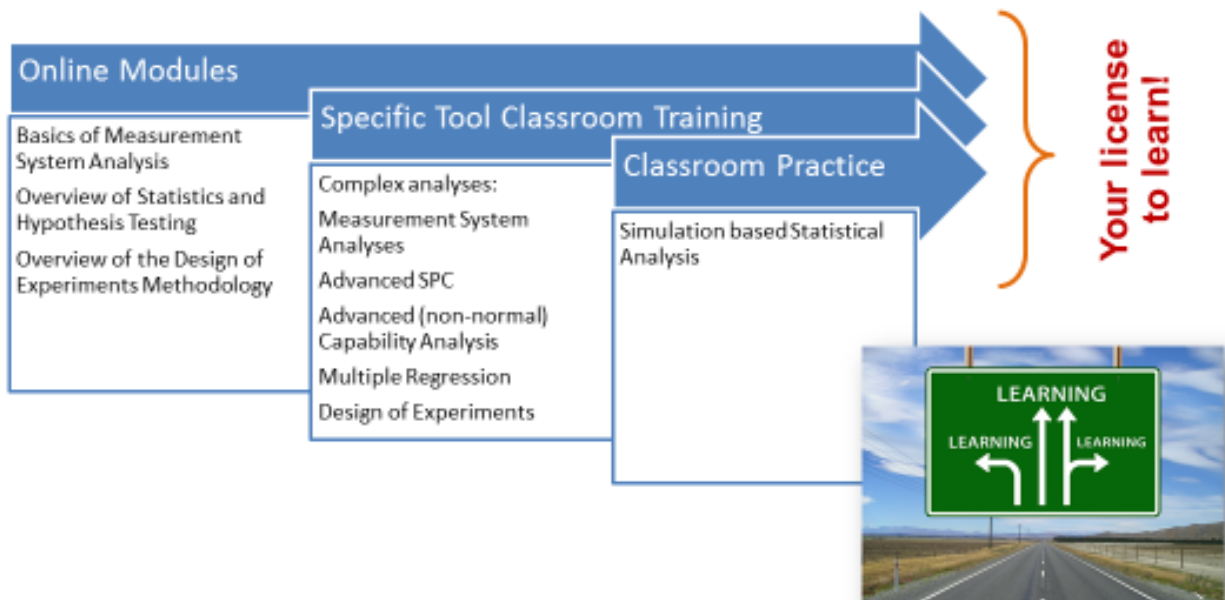
COURSE OUTLINE | USC Six Sigma Black Belt Certificate Program

The Six Sigma Black Belt program is an in-depth, interactive learning experience that combines online modules with online classroom learning. Our Six Sigma program is based on a case study approach so that participants apply training directly to a real-world example.

The program is structured in the following way:

- **Weeks 1 & 2:** 15-30 hours (per week) of self-paced online modules to prepare for Week 3 & 4 of virtual classroom training
- **Weeks 3 & 4:** 20 hours of instructor-led online training class sessions scheduled Monday – Thursday from 6:30 – 9:00 pm
- **Weeks 5 & 6:** 15-30 hours (per week) of self-paced online modules to prepare for Week 7 & 8 of virtual classroom training
- **Weeks 7 & 8:** 20 hours of instructor-led online training class sessions scheduled Monday – Thursday from 6:30 – 9:00 pm
- The final examination and project completion determine whether or not students have mastered the topics necessary to receive their Six Sigma Black Belt certification.

Structure of this Course



SYLLABUS | USC Six Sigma Black Belt Certificate Program

- For your convenience, this agenda is flexible. The instructor led modules may shift as necessary based on your class needs and focus.
- Self-paced modules are typically completed in about 10 to 15 hours per week, however, students times will vary based on skill level.
- Modules that are **underlined in bold** are required for all students. All other online modules are recommended as preparatory to the instructor led training.
- If a student has previous training or experience, he/she may attempt the end-of-session quizzes without going through the modules if desired.
- Instructor-led modules will go into significantly greater depth in the complex topics than the self-paced modules. Attendance in the instructor-led sessions is required.

Dates	Online Modules	Instructor Led Online Modules
<p style="text-align: center;">Weeks 1 & 2</p>	<ol style="list-style-type: none"> 1. Introduction to Lean Six Sigma 2. Define I - Starting a Project and Leading Teams 3. Define II - Voice of the Customer 4. Define III - Mapping the Process 5. <u>Measure I - Measurements and Basic Statistics</u> 	<p>None</p>
	<ol style="list-style-type: none"> 6. <u>Measure II - Measurement System Analysis</u> 7. <u>Measure III - Charting Process Behavior</u> 8. Analyze I - Potential Root Causes 	
<p style="text-align: center;">Weeks 3 & 4</p>	<p>None</p>	<p>Review of GB: Processes, Systems, Improvement Methodologies and Data Based Decisions Understanding Data and Variation – Advanced Topics in probability distributions and variation FOV Review and VOC Identification Attribute and Variable MSA Advanced topics in SPC Advanced topics in Capability: Distribution Identification Introduction to statistical testing Identifying relationships - making inferences based on data: The Hypothesis Testing methodology Testing Shape Testing Spread Testing Center</p>

Dates	Online Modules	Instructor Led Online Modules
<p>Weeks 5 & 6</p>	<p>9. <u>Analyze II - Hypothesis Testing</u> 10. <u>Analyze III - Design of Experiments</u> 11. Improve 12. Control</p>	<p>None</p>
<p>Weeks 7 & 8</p>	<p>None</p>	<p>Identifying relationships - making inferences based on data: Proportions & Chi Square Identifying relationships - making inferences based on data: Correlation and Regression</p> <p>Full Data Based Simulation Part 1: Planning the Study Full Data Based Simulation Part 2: Identifying Relationships Full Data Based Simulation Part 3: Defining Direction</p> <p>Exploiting system relationships - Experimenting on the system: Fundamentals of Design of Experiments (DOE) Summary and Close</p>