

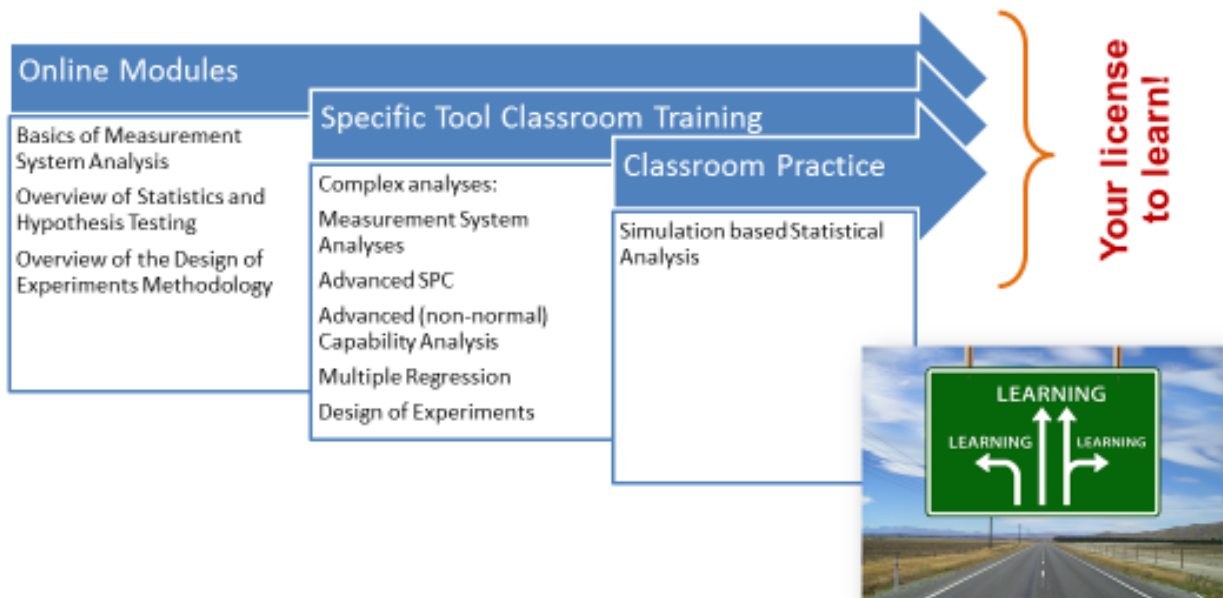
## COURSE OUTLINE | USC Six Sigma Black Belt Certificate Program

The Six Sigma Green 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
Weeks 1 & 2	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. <b><u>Measure I - Measurements and Basic Statistics</u></b>	None
	6. <b><u>Measure II - Measurement System Analysis</u></b> 7. <b><u>Measure III - Charting Process Behavior</u></b> 8. Analyze I - Potential Root Causes	
Weeks 3 & 4	None	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

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