Syllabus
EIN 4453 Advanced Lean Six Sigma

3 credit hours - counts as an elective for the BSIE degree in the IMSE Department

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Telephone: 813-974-3352
Office hours: TBD

Required Textbooks:

Course Description:
Advanced Lean Six Sigma expands upon your initial exposure to one of the most successful business strategies in operations: the lean philosophy, as seen at Toyota and other companies; as well as six sigma, as made famous by General Electric and Motorola.

Objectives:
Students will gain the following abilities:

1) Ability to apply lean six sigma techniques, skills, and tools to process improvement tasks
2) Ability to apply the DMAIC problem solving methodology to solve process related problems

Achievement of objectives will be measured by the student’s ability to:

Students will be able to:

1) Demonstrate the ability to create a value stream map to identify process related problems and identify potential solutions; this will be measured via a compulsory team project.

2) Demonstrate the ability to follow the DMAIC problem solving methodology and to apply lean six sigma techniques, skills, and tools to improve a process; this will be measured via a compulsory team project.
**Prerequisites:** EIN 4933 Lean Six Sigma (new proposed course number EIN 4452)

**Detailed course Outline:** A detailed course outline that includes lectures, assignment deadlines, office hours, grading policies and expectations, and exam dates will be posted online.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11-Jan</td>
<td>Course Introduction</td>
<td>Read Chapter 1 (Liker &amp; Meier) [Read Chapters 1-3 (Pande et al.)]</td>
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<tr>
<td>2</td>
<td>18-Jan</td>
<td>Defining Your Corporate Philosophy</td>
<td>Read Chapters 2-3 (Liker &amp; Meier) [Read Chapters 6-8 (Pande et al.)]</td>
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<tr>
<td>3</td>
<td>25-Jan</td>
<td>Create Initial Process Stability</td>
<td>Read Chapters 4-5 (Liker &amp; Meier) [Read Chapter 9 (Pande et al.)]</td>
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<tr>
<td>4</td>
<td>1-Feb</td>
<td>Standardized Processes and Procedures</td>
<td>Read Chapters 6-7 (Liker &amp; Meier) [Read Chapters 10-11 (Pande et al.)] [Current State Map Due]</td>
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<tr>
<td>5</td>
<td>8-Feb</td>
<td>Build a Culture That Stops to Fix Problems</td>
<td>Read Chapters 8-9 (Liker &amp; Meier) [Read Chapter 12 (Pande et al.)]</td>
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<tr>
<td>6</td>
<td>15-Feb</td>
<td>Problem Solving the Toyota Way</td>
<td>Read Chapters 13-14 (Liker &amp; Meier) [Read Chapters 13-14 (Pande et al.)] [Revised Current State Map Due]</td>
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<tr>
<td>7</td>
<td>22-Feb</td>
<td>Problem Solving the Toyota Way</td>
<td>Read Chapters 15-16 (Liker &amp; Meier) [Read Chapters 15-17 (Pande et al.)] [Future State Process Map Due]</td>
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<tr>
<td>8</td>
<td>1-Mar</td>
<td>Problem Solving the Toyota Way</td>
<td>Read Chapters 17-18 (Liker &amp; Meier) [Read Chapters 18-20 (Pande et al.)] [Future State Process Map Due]</td>
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<tr>
<td>9</td>
<td>8-Mar</td>
<td>Develop Leaders Who Live Your System and Culture</td>
<td>Read Chapters 10 (Liker &amp; Meier) [Draft of A3 Report Due]</td>
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<td>10</td>
<td>15-Mar</td>
<td>Spring Break</td>
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<tr>
<td>11</td>
<td>22-Mar</td>
<td>Develop Exceptional Team Associates</td>
<td>Read Chapters 11 (Liker &amp; Meier)</td>
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<tr>
<td>12</td>
<td>29-Mar</td>
<td>Develop Suppliers and Partners as Extensions of the Enterprise</td>
<td>Read Chapters 12 (Liker &amp; Meier)</td>
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<tr>
<td>13</td>
<td>5-Apr</td>
<td>The Deming Management Method</td>
<td>Project Reviews and/or Case Studies</td>
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<tr>
<td>14</td>
<td>12-Apr</td>
<td>Project Reviews and/or Case Studies</td>
<td></td>
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<tr>
<td>15</td>
<td>19-Apr</td>
<td>Project Reviews and/or Case Studies</td>
<td></td>
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<tr>
<td>16</td>
<td>26-Apr</td>
<td>Project Presentations</td>
<td>Final Projects Due</td>
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**Grading:** Grades for this course will be comprised of the following breakdown of assignments and assessments:

**Grading scale:**

- 91-100 = A+
- 93-96 = A
- 90-92 = A-
- 87-89 = B+
- 83-86 = B
- 80-82 = B-
- 77-79 = C+
- 73-76 = C
- 70-72 = C-
Policies:

- Attendance is expected at all class sessions. Please email the instructor if you have to miss a class for a major reason.
- Students who anticipate the necessity of being absent from class due to a religious day observance must provide notice of the date(s) to the instructor, in writing, by the second class meeting.
- Always be on time to class.
- Be courteous to your fellow classmates and your instructor. During class time, please turn off or set all cell phones in vibration mode. If you need to take a phone call please leave the classroom.
- Classes will be transmitted through Elluminate for Distance Learning students. You may either connect in real-time and participate in the live session or watch the recorded session at a later time.
- Students are responsible for all information conveyed during class and on CANVAS (Learn.USF Portal).
- Assignment due dates are included in the course schedule and posted on Blackboard with each assignment. It is the student’s responsibility to learn and track these postings.
- All reports must be handed in on the scheduled due date. No late reports will be accepted.
- Communication in the course will be done through official electronic means: USF assigned email address and the course web site in the USF portal (https://learn.usf.edu). It is the student’s responsibility to make sure they are receiving their official USF email.
- All students in the College are required to have access to a laptop.
- If you are a distance learning student you will need a computer microphone and headset.
- Students who copy or provide material to others to copy, or who show dishonesty in their work as described in the university catalog, will be subject to disciplinary action, typically the receipt of an F in the course, but also possible dismissal from the program.
- Students who are absent on the first day of class from the live lecture section, and do not contact the instructor prior to the first class, may be marked absent and are subject be being automatically dropped from the class per the university’s first day attendance policy.