Instructor Contact

Dr. Nathan L. Anderson, nlanderson@csuchico.edu, Office: OCNL 427, Office Phone: (530) 898-5976

Office Hours

TR: 3-4:50PM
https://csuchico.zoom.us/j/8375880302?pwd=TmNWdk5UMkwvUHczbU5MdXBlT0Nodz09

Other times/locations may be available upon request. Times/locations also subject to change, updates will be sent via Blackboard and email.

Course

Lecture/Discussion: MWF: 12-12:50PM online.
3.0 Unit Course Credit

Course Description

This course is an introduction for students to manufacturing quality systems. Particular attention is paid to statistical techniques and their practical application to design, processes, and services

Prerequisites

Prerequisites: OSCM 306.

Text/Requirements

Required: Laptop/computer with internet access to: Blackboard Learn, Zoom, and Microsoft Office (or similar Google, etc).
Student Learning Objectives

Students are expected to acquire knowledge of the following major topics.
1. Statistical process control
2. Reliability testing
3. Sampling
4. 6 sigma
5. Value stream mapping
6. Prioritization matrices
7. DMAIC
8. FMEA
9. Gauge R&R
10. QFD
11. Hypothesis testing

Required Skills

If at any time you are experiencing technical difficulties you should contact ITSS.

During this course you may be expected to:

- Use the chat, response, and poll features in Zoom.
- Use the text editor in Blackboard (or elsewhere; e.g., discussion board, blog, short-answer essay question).
- Submit assignments via Blackboard.
- Attach, open, or create pdf documents.
- Use email professionally (i.e., use proper tone, respond promptly, etc.).
- Watch an online video using a variety of video players (e.g., Quickime, YouTube, etc.).
- Create and post your own web video using a web camera.
- Create and post your own presentation using a variety of software (i.e., PowerPoint and Prezi).
- Take an online, traditional assessment (i.e., quiz, test).
- Take a screenshot.
- Hyperlink a URL.
- Embed an image in a text document.
- Edit an image.
- Use chat applications—both text and video.

Homework

Homework assignments will be posted to Blackboard and will be due as noted. Homework will typically consist of computer and handwritten assignments to be uploaded to Blackboard. Late homework will not be accepted!

Projects

During this course you will be learning about various quality tools. You will be given three projects during the course of the semester (DMAIC 1 and 2, QFD) in which you will write a document and create a presentation about. The document details will be given at a later date and submitted as a Word (Google Docs, etc). The presentation should highlight these things and be recorded as a voiced over Powerpoint (Google Slides, etc).
Quizzes/Participation

Sometimes in class there will be in class breakout activities. There will also occasionally be short quizzes based on the homework or previous class discussion. These activities will all contribute to your Quizzes/Participation score.

Exams

There will be a midterm and a final exam. The exams will take place at the regularly scheduled class time with additional time. Final day/time will be announced when made available. If extenuating circumstances prevent you from attending an exam, contact me as soon as possible for other arrangements to be made.

Grading

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes/Participation</td>
<td>20%</td>
</tr>
<tr>
<td>Projects</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

If you feel that there is an error in the grading, please submit to me in writing a short statement of why you think that you deserved more credit along with the original graded work. This must be done within a week of the assignment being returned, or will lose consideration.

Final grades will be given according to the following distribution after the weighting above has been performed for each category.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94-100%</td>
</tr>
<tr>
<td>A-</td>
<td>90-93%</td>
</tr>
<tr>
<td>B+</td>
<td>88-89%</td>
</tr>
<tr>
<td>B</td>
<td>83-87%</td>
</tr>
<tr>
<td>B-</td>
<td>80-82%</td>
</tr>
<tr>
<td>C+</td>
<td>78-79%</td>
</tr>
<tr>
<td>C</td>
<td>73-77%</td>
</tr>
<tr>
<td>C-</td>
<td>70-72%</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>0-59%</td>
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</tbody>
</table>

Note: This distribution is subject to change during the course of the semester.

Resources

There are a number of resources available to assist you through this course. In addition to coming to my office hours or scheduling a meeting with me, there is free tutoring available from multiple student organizations. My schedule/availability will be posted on the MMEM website, and additional meeting times can be scheduled in advance.
**Online Etiquette**

A distinguishing feature of any online class is that most communication occurs through the written word. Due to this the body language, voice, tone, and instantaneous listener feedback of a traditional class are all absent. Please take this into consideration when taking part in a discussion or class communication. Key points to consider:

- Respect others and their opinions
- Avoid inappropriate material
- Be forgiving
- Consider others privacy
- Use the right tone
- Be as concise as possible
- Stick to the point
- Take a pause before you send

**Disruptive Behavior**

Students are required to adhere to the behavior standards articulated in the Campus Policies and Code of Student Conduct, and to refrain from disrupting classes and other academic settings. "Disruptive behavior" means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting.

Disruption in the classroom may include but is not limited to:

- Engaging in activities not related to the class, or other overt inattentiveness including but not limited to sleeping, talking to others, doing work for another class, reading the newspaper, checking e-mail, and exploring the Internet
- Monopolizing class discussion and refusing to defer to instructor, or listen to others; persisting when the instructor has indicated that the student’s remarks are off topic and it is time to move on
- Disputing authority or arguing with faculty and other students
- Inappropriate, disrespectful, or uncivil responses to the comments, opinions, presentations, etc. of others in the classroom
- Failure to adhere to the instructor’s rules or instructions
- Vulgar or obscene language, slurs, memes or other forms of intimidation
- Showing up to class under the influence of alcohol/drugs
- Threats of any kind
- Improper use of equipment, materials or resources
- Any behavior that puts the health or safety of the instructor or other students in the class in jeopardy

**Academic Integrity**

Read and understand the university policy (http://www.csuchico.edu/sjd/integrity.shtml). Examples of academic dishonesty include: a) copying the work/assignment of others, and b) allowing others to copy yours.

**Americans with Disabilities Act**

If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please make an appointment
with me as soon as possible, or see me during office hours. Please also contact Accessibility Resource Center (ARC) as they are the designated department responsible for approving and coordinating reasonable accommodations and services for students with disabilities. ARC will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations.

**Accessibility Resource Center**

530-898-5959  
Student Services Center 170  
arcdept@csuchico.edu

**Schedule (Tentative)**

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic</th>
<th>Work Due (Note: Tentative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Defining Quality</td>
<td>Groups Vote/Meet</td>
</tr>
<tr>
<td>2</td>
<td>Stats for Variables</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Global Considerations</td>
<td>HW 1</td>
</tr>
<tr>
<td>4</td>
<td>Tools</td>
<td>HW 2</td>
</tr>
<tr>
<td>5</td>
<td>Stats for Attributes</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Product Design</td>
<td>DMAIC I</td>
</tr>
<tr>
<td>7</td>
<td>Theories</td>
<td>HW 3</td>
</tr>
<tr>
<td>8</td>
<td>Review and Midterm</td>
<td>Midterm</td>
</tr>
<tr>
<td>9</td>
<td>Supplier Quality</td>
<td>HW 4</td>
</tr>
<tr>
<td>10</td>
<td>Voice of the Customer</td>
<td>HW 5</td>
</tr>
<tr>
<td>11</td>
<td>Voice of the Market</td>
<td>HW 6</td>
</tr>
<tr>
<td>12</td>
<td>Six Sigma and Lean</td>
<td>House of Quality Face Off</td>
</tr>
<tr>
<td>13</td>
<td>Thanksgiving Break</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Service Design</td>
<td>HW 7</td>
</tr>
<tr>
<td>15</td>
<td>Planning</td>
<td>DMAIC II</td>
</tr>
<tr>
<td>16</td>
<td>Managing Projects</td>
<td>HW 8</td>
</tr>
<tr>
<td>17</td>
<td>Implement &amp; Validate</td>
<td>Final Exam</td>
</tr>
</tbody>
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*Note that modifications to the syllabus may be made throughout the semester. Please check back to Blackboard for the most current version.*