EMgt 5710
Six Sigma
Course Syllabus

Format

Advanced statistical analysis for quality control in a variety of environments and industries; methods for collecting and statistically analyzing process data; graphical representation of process data; experimentation to improve process quality; data driven decision-making; process improvement methods to reduce risk from potential failure modes; implementation of process improvement recommendations; validation of improvements.

Required Text

The required text for the course is:

Course Objectives

Upon completion of this course students will have learned or be able to:
• Quantitatively and qualitatively identify and effectively communicate a process problem.
• Select appropriate statistical analysis and quality methods to analyze a quality defect.
• Quantify and graphically display baseline process performance.
• Interpret statistical analyses to make appropriate recommendations for process requirements to meet or exceed customer expectations.
• Optimize process performance using appropriate advanced statistical analysis.
• Effectively implement process improvement recommendations.
• Verify process capability for the improved process.
• Document and quantitatively/qualitatively demonstrate improvement.

Semester Project Teams

The class will be divided into teams of three members each. Teams are encouraged to meet together outside of regular class hours to study together, work on the semester project together, and discuss course related issues.

Grades

The students’ ability to carry out the course objectives and the final grade will be determined by their performance in the following way:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-class tests (20%x3)</td>
<td>60%</td>
</tr>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Semester Project</td>
<td></td>
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<tr>
<td>Oral presentation</td>
<td>10%</td>
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<tr>
<td>Written report</td>
<td>20%</td>
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Dr. Beth Cudney
217 Engineering Management
Office Hours: 10:00-11:00am on Tuesday and Thursday
(573) 341-7931 cudney@mst.edu
Class Information

Class Attendance and Participation
Class attendance is required for on-campus students. Students who miss three classes without permission will be dropped on the next absence regardless of grade in the course. Distance students are expected to watch the recorded lecture the same day. Distance students are required to participate in the final semester project presentations via WebEx (dates provided in course schedule). It is the student’s responsibility to make sure they are dropped from a class if they wish/need to withdraw. Any student still enrolled at the end of the semester who has not been in attendance will receive an “F”.

Academic Dishonesty
http://registrar.mst.edu/academicregs/index.html Page 30 of the Student Academic Regulations handbook describes the student standard of conduct relative to the System’s Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism, or sabotage. Additional guidance, including a description of the process for dealing with issues related to academic dishonesty, is available on-line at http://ugs.mst.edu.

Distance Students
Distance students will take their exams the same date listed in the course schedule. However, the test will be available at 7:00pm CST. In addition, distance students will be required to virtually attend their semester project presentation. This is the only class distance students are required to virtually attend. Distance students are expected to watch the remaining recorded classes within 24 hours.

Disability Support Services
http://dss.mst.edu
It is the policy and practice of Missouri University of Science and Technology to promote inclusive learning environments. If you have a documented disability you may be eligible for reasonable accommodations in compliance with university policy, the Americans with Disabilities Act of 1990, the Americans with Disabilities Amendment Act (ADAAA) of 2008, and Section 504 of the Rehabilitation Act of 1973. Please note, students are not encouraged to negotiate accommodations directly with professors.

To request accommodations or assistance, please self-identify with Disability Support Services (DSS), 203 Norwood Hall. For more information or to register for services, contact DSS at (573) 341-6655 or by email at dss@mst.edu.

Title IX
Missouri University of Science and Technology is committed to the safety and well-being of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises.

Missouri S&T’s Title IX Coordinator is Vice Chancellor Shenethia Manuel. Contact her directly (manuels@mst.edu; (573) 341-4920; 113 Centennial Hall) to report Title IX violations. To learn more about Title IX resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit http://titleix.mst.edu.

Classroom Exit Procedure
Please familiarize yourself with emergency exit procedures and classroom egress maps posted on-line at http://designconstruction.mst.edu/floorplan/
S&Tconnect

S&Tconnect provides an enhanced system that allows students to request appointments with their instructors and advisors via the S&Tconnect calendar, which syncs with the faculty or staff member’s Outlook Exchange calendar. S&Tconnect will also facilitate better communication overall to help build student academic success and increase student retention. S&Tconnect Early Alert has replaced the Academic Alert system used by Missouri S&T. If training is needed, please contact Rachel Morris at rachelm@mst.edu or 341-7600.

The Burns & McDonnell Student Success Center

The Student Success Center is a centralized location designed for students to visit and feel comfortable about utilizing the campus resources available. The Student Success Center was developed as a campus wide initiative to foster a sense of responsibility and self-directedness to all S&T students by providing peer mentors, caring staff, and approachable faculty and administrators who are student centered and supportive of student success. Visit the B&MSSC at 198 Toomey Hall; 573-341-7596; success@mst.edu; facebook: www.facebook.com/SandTssc; web: http://studentsuccess.mst.edu/