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.

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.

Required Text
The required text for the course is:
See notes in Canvas on how to access an electronic version through the campus library for free.

Semester Project Teams
The semester project can be conducted individually or in a team of up to three members. Students will organize their own teams. 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:
In-class tests (20% x 3) 60%
Homework 10%
Semester Project
Oral presentation 10%
Written report 20%

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217 Engineering Management
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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 live stream video (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 University of Missouri System’s Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism, or sabotage.

Additional guidance, including the University’s Academic Dishonesty Procedures, is available on-line at http://academicsupport.mst.edu. Other informational resources for students regarding ethics and integrity can be found online at: http://academicsupport.mst.edu/academicintegrity/studentresources-ai.

Distance Students

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.

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 interim chief diversity officer Neil Outar. Contact him (naoutar@mst.edu; (573) 341-6038; Temporary Facility A-1200 N. Pine Street) 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.
Accessibility and Accommodations

It is the university’s goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please contact Student Disability Services at (573) 341-6655, sdsstmst@mst.edu, or visit http://dss.mst.edu/ for information, or go to mineraccess.mst.edu to initiate the accommodation process.

*Please be aware that any accessible tables and chairs in this room should remain available for students who find that standard classroom seating is not usable.

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

https://canvas.mst.edu (S&Tconnect icon on left toolbar)

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/