TMGT 340 MANAGERIAL STATISTICS
COURSE SYLLABUS: FALL 2018

INSTRUCTOR INFORMATION

Instructor: Dr. Marty Yaqub, Ph.D., D.Eng., M.B.A.
Department of Engineering & Technology

Office Location: Charles J. Austin Engineering & Technology Building, Room 220

Office Hours:
Tuesday   01:00 pm to 03:30 pm
Thursday   01:00 pm to 03:30 pm
Office Phone:
903-886-5462
Office Fax:
903-886-5690

University Email Address:
marty.yaqub@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook

Montgomery, Douglas C.. Introduction to Statistical Quality Control, Seventh Edition. John Wiley and Sons, Inc.

Instructor will provide lecture slides and solved problems examples for the topic covered in this course.

Course Description

Explores methods of collecting, analyzing and interpreting data for managerial decision making. Includes data presentation, measures of dispersion, measures of central tendency, and skewness; discrete and continuous probability distributions; data sampling and sample size determination,

graphical charts, and statistical tools to model and control manufacturing processes performance as well as product/ service quality. Prerequisites: TMGT 240.

Student Learning Outcomes

After successfully completing the course, students should be able to do the following:
1. Analyzing and interpreting data for managerial decision making including data presentation, measures of central tendency, dispersion, and skewness.
2. Understand important discrete and continuous probability distributions.
3. Demonstrate the ability to utilize statistical tools to control a manufacturing or service quality process.
4. Data Sampling and sample size determination.
5. Perform statistical analysis of six sigma process implementation.

COURSE REQUIREMENTS

Instructional Methods

This course will be presented by using lectures, in-class exercises, homework and and projects. Student learning outcomes will be evaluated based on homework, a project, and three exams (see course schedule). All exams are closed book and closed notes. Using any other resources during exams is not allowed. Students can bring a calculator during exams. There will be one semester project required related to the course content delivered. A detailed project description will be given mid-semester.

No make-up exams will be permitted unless official documentation for absences is provided. All documented absences due to religious observances and officially approved trips will be guaranteed as a make-up opportunity. Absences due to other unavoidable reasons (e.g., death in the family, illness) will be considered on a case-by-case basis, with appropriate documentation required. Except in the case of an emergency, the student must always seek instructor consent prior to the absence. Typically, make-up exams might occur before the scheduled absence and as close to the original assignment date as possible.

This course utilizes lectures and assignments to assist students in achieving the course learning outcomes. The assessment criteria for the stated student learning outcomes will include assignments, team project, three exams, and presentations of assignments.

Videos will be posted to support the instructional material.

A term project will be assigned to help students use statistical techniques, skills, and modern engineering tools necessary for engineering practice.

Minimal Technical Skills Needed

The use of the learning management system to review class lectures,

The use Microsoft Word and PowerPoint for the term project assignment,
Utilization of Microsoft Excel or Minitab software to generate graphics and statistical anslysis for the term project.

Student Responsibilities or Tips for Success in the Course

Examples include: Regularly logging into the course website, amount of weekly study and reviewing posted course videos as well as preparing for the four (4) required exams for this course.

Activities Assessments

Final grades in this course will be based on the following scale:
A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

Grading:

Exam-1 (covers learning outcomes 1 and 2)	20%
Exam-2 (covers leering outcome 3)	20%
Exam-3 (covers leering outcome 4)	20%
Exam-4 (covers leering outcome 5)	20%
Project (covers all listed leering outcomes)	20%

TECHNOLOGY REQUIREMENTS

The following technologies will be required for this class.
- A scientific calculator for exams.
- Microsoft Word, Excel, PowerPoint.
- Minitab Statistical Software

Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or **point** release of that major version) and the previous major version of iOS (the latest minor or **point** release of that major version). For example, as of June 7, 2017, D2Lsupports iOS 10.3.2 and iOS 9.3.5, but not iOS

Device	Operating System	Browser	Supported Browser Version(s)
			10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - o 512 MB of RAM, 1 GB or more preferred
  - o Broadband connection required courses are heavily video intensive
  - o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- You must have a:
  - o Sound card, which is usually integrated into your desktop or laptop computer
  - o Speakers or headphones.
  - o *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site http://www.java.com/en/download/manual.jsp

- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.
Pop-ups are allowed.
JavaScript is enabled.
Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - o Adobe Reader https://get.adobe.com/reader/
  - o Adobe Flash Player *(version 17 or later)* https://get.adobe.com/flashplayer/
  - o Adobe Shockwave Player   https://get.adobe.com/shockwave/
  - o Apple Quick Time   http://www.apple.com/quicktime/download/

- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT
Brightspace Support

Need Help?
Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words "click here" to submit an issue via email.

System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm-6 am CST.

Interaction with Instructor Statement

The instructor is available via a variety of avenues. The best path depends on the nature of the content you wish to convey or ask. If you have a general question about the class content, the syllabus and course materials are provided within the D2L environment and may already provide the answer you seek. If you have a question or comment of the nature that would be presented in a traditional classroom environment, please do so in the Virtual Classroom so that others might benefit from and participate in the exchange. If you know the answer to a fellow student's question, please respond. Personal content involving grades, progress, etc. should be addressed with me via private e-mail: marty.yaqub@tamuc.edu. Your name, CWID, and course number (if regarding a specific course) must be included in any and ALL electronic correspondence. Emails should receive a response within 24 hours Monday-Friday. Please allow for additional time for emails sent on the weekend.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies
1. One day late assignment is accepted with a 20% grade deduction; after this, no assignment will be accepted.
2. You will be expected to do all the readings throughout the semester.
3. Each exam will be given in class. Exams are closed book and notes (necessary formulas will be provided on a separate page). Students will need a scientific calculator for exams. Cell phones are not acceptable as a calculator. Use of unauthorized aids on exams will result in a grade of zero.
4. There will be one design assignment and it will be a group project.
5. The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.
6. No make-up exams will be permitted unless official documentation for absences is provided (e.g., death in the family, illness).

Syllabus Change Policy
The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette
http://www.albion.com/netiquette/corerules.html

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: StudentDisabilityServices@tamuc.edu

Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.
Web url: http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

WEEK	TOPICS
Week 1	Course Introduction Numerical Summaries of Data and Data Presentation Measures of Data Dispersion Measures of Central Tendency Visual Display of Data

Week 2	Probability Distributions Important Discrete Distributions
Week 3	Probability Distributions Cont. Important Continuous Distributions
Week 4	**Exam-1 (Due September 23rd, 11:59 PM)**
Week 5	Statistical Techniques for Process Control Statistical Basis of Control Charts for Variables
Week 6	**Exam-2 (Due October 7th, 11:59 PM)**
Week 7	Statistical Basis of Control Charts for Attributes
Week 8	Data Sampling and Sample Size Determination
Week 9	**Exam-3 (Due October 28th, 11:59 PM)**
Week 10	Measures of Skewness Skewed Statistical Distributions
Week 11	Statistical and Graphical Methods for Measuring Process Performance Statistical Methods to Implement Six Sigma Process
Week 12	**Exam – 4 (Due November 18th, 11:59 PM)**
Week 13	Term Project Assignment and Guidelines
Week 14	Project Execution
Week 15	**Project Final Report Due (Due December 6th, 11:59 PM)**