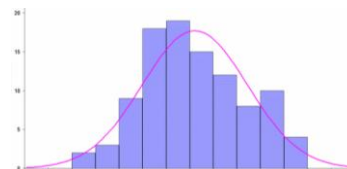




UTTyler
THE UNIVERSITY OF TEXAS AT TYLER

The University of Texas at Tyler
Soules College of Business
Department of Technology



TECH 5320 – TOTAL QUALITY MANAGEMENT

Course Syllabus

Course: TECH 5320
Title: Total Quality Management
Section: 001/060
Prerequisite: None
Semester: Fall 2026
Class Time: 001-M 6-8:45 pm/060-Online
Class Location: 001-SCOB 229/0060-Online

Instructor: Mohammed Ali, PhD, MBA, CSMS, CLSSBB
Office: Dept of Technology, Soules College of Business, COB 225-7
Phone: (903) 566-6255
Email: mohammedali@uttyler.edu
Preferred Method of Contact: email
Office Hours: MR 12:00 – 5:00 pm and by appointment

Course Description:

This is a study of the principles and practices of TQM, including leadership in quality, customer satisfaction, employee involvement, and continuous process improvement. It also examines TQM tools and techniques such as quality function deployment and experimental design.

Lecture Notes and Classroom Environment:

The lecture notes for the course will be available online on the Canvas site. Additionally, students are required to take notes during face-to-face classes (if necessary and take place) on supplemental lecture materials, problem-solving, and diagrams that the instructor writes/draws on the classroom board. A student is **NOT allowed** to take photos of notes on the board.

Textbook (Required)

Donna C. Summers (2017). Quality, 6th Edition, New Jersey: Pearson Education Inc., Prentice Hall. ISBN-13: 978-0134413273.

Course Objectives:

Upon successful completion of this course, participants will be able to:

1. CLO1: Apply established quality measurement criteria to assess and enhance performance within their workplace.
2. CLO2: Evaluate the design, functionality, and overall quality of products and services using industry standards.
3. CLO3: Utilize graphical tools and techniques to identify, analyze, and resolve quality-related issues.
4. CLO4: Identify opportunities for quality improvement and implement effective strategies within service-oriented environments.
5. CLO5: Evaluate and assign appropriate quality control strategies and management levels across administrative, production, sales, and after-sales service functions to support organizational quality objectives.

Student Learning Outcomes:

1. Understand concepts of total quality control by successfully passing quizzes and exams with a 70% or better.
2. Develop proficiency in using various types of sampling and process control charts by successfully passing quizzes and exams with a 70% or better.
3. Analyze statistical process control (SPC) tools for a specific manufacturing or service industry by completing term projects and passing quizzes and exams with a 70% or better.
4. Identify the types and levels of quality control management that should be assigned to the various levels of administration, production, sales, and after-sale service in an organizational setting by completing term projects and passing quizzes and exams with a 70% or better.

Core Competencies

1. Computer-Based Skills – The student will complete written assignments using the word processor.
2. Communication Skills—The student will master both written and oral skills in completing and presenting the assigned projects.
3. Interpersonal Skills – The student will interact in class discussions to clarify thinking regarding technological progress.
4. Problem Solving (Critical Thinking): The student will use conceptual thinking to analyze and make determinations regarding the use of industrial processing equipment.
5. Personal Accountability for Achievement—The student will complete the projects at the time designated by the instructor and will participate in class discussions.
6. Competence in Technology Principles: Participants will apply course concepts to their area(s) of subject matter or majors.

Grading Policy and Criteria to Determine Final Course Grade:

Grading components are assigned weights*

Discussion & Participation	150
Textbook Quizzes	250
Case Studies	200
<u>Exams 1 (150), 2(100) & Final</u>	<u>400</u>
TOTAL POINTS = 1000	

*NOTE: This is NOT set in stone, pending the number of quizzes and assignments given.

Grade Scale Breakdown:

A=90 - 100%
B=80 - 89%
C=70 - 79%
D=60 - 69%
F=BELOW 60%

Course Policies:**Attendance:**

Attendance is mandatory, which will be determined by submitting quizzes, assignments, and exams. No make-ups unless:

1. Organized university trip.
2. Illness or death in the immediate family (mother, father, brother and sister).
3. Illness of student.

Each of these will require either a **doctor's statement** or a **signed statement** from the individual in charge of the trip.

A student will lose a letter grade in the course each time s/he is absent or late three times. Any student entering the classroom 1 minute after the scheduled starting time will be considered delinquent.

Talking:

While the instructor is talking (in a face-to-face class), it is understood that no one should be talking. Students talking in class prevent other students from hearing the instructor and learning the required material to pass the course. You will earn a zero on your daily quiz grade if you are caught talking. On the second offense, you will be **asked to leave**. This behavior is rude and disruptive, and most students who speak in class typically earn lower grades. Students who have been granted permission to speak by the instructor should be able to continue. If a student does not like to listen to the lecture or any personal issue arises, they can leave the classroom gently, but are NOT allowed to disturb or distract their classmates. Please respect your classmates who have paid for this course and want to listen to the lecture and learn the content.

Lectures, Chapter Quizzes and Exams:

Lectures are posted under the Modules section in Canvas. Each PowerPoint Lecture Note is accompanied by a timed quiz (30-180 minutes, based on difficulty and mathematical calculation). There are approximately 12 quizzes in total. These will be available for about one week and will not reopen after the deadline passes. This course emphasizes statistical analysis and quantitative methods; therefore, students will complete three exams covering a subset of chapters to promote focused learning and mastery of key concepts. Exam content will be taken from lectures, worksheets, quizzes, reading and writing assignments, laboratory exercises (if any), and audio-visual materials, i.e., films, tapes, slides, etc. **Cell phones, laptops, iPads, or other electronic communication equipment besides a calculator are not allowed during the exam.** A first violation will result in a warning, and a second violation will result in a fine and forfeiture of the right to take the exam.

Make-up quizzes and examinations are the student's responsibility. **No excuses will be accepted after the due date has passed.** The instructor must be notified **before** the scheduled exam. If not, the student forfeits their right to take the exam. However, make-up exams will be on a different set of questions. Quizzes and assignments will only be made up if the instructor has received a prior acceptable excuse for an absence.

Using Worksheets to Support Your Learning

This course stresses statistical analysis and quantitative methods, which some students may find challenging. I developed a worksheet for each chapter to support your learning and reduce anxiety. These worksheets offer concise, clear, and practical summaries of key concepts, helping you focus on essential material and strengthen your understanding.

I recognize that many of you juggle responsibilities—jobs, families, hobbies, and other coursework. Still, since you've enrolled in this course with the intention of succeeding, I strongly encourage you to dedicate at least a couple of hours per chapter to engage meaningfully with the content.

Each worksheet is designed to direct your attention to specific areas in the textbook for MCQ clues, allowing you to study more efficiently and effectively, based on your own learning pace and capacity. I understand that every student is unique, and abilities vary, so the worksheets help you maximize your efforts within your available time.

The summary description of the chapter topic and knowledge-check questions in the worksheets are self-explanatory. If you encounter any difficulty understanding a concept, please do not hesitate to email me via Canvas. I will do my best to respond within a few hours or by the end of the day. Let's make this a smooth and enriching learning experience together.

Late Work:

All work **not turned in on time will automatically be reduced to 50% of its full value.** Exceptions to this will be as per University Policy concerning absences from class. The students are responsible for taking quizzes and submitting assignments by the due date or the date they were administered. **The instructor is NOT responsible for reminding students about missed quizzes, assignments, or exams.** If you know a quiz/assignment/exam will be late for a valid reason, inform your instructor in advance to avoid unnecessary penalties.

Format for Assignment Reports:

Each assignment must be written so the reader can quickly examine the contents. Materials that are hard to read or require special handling will not be graded. The cover page must contain the following:

1. Assignment Title and Chapter Number bolded
2. Your Name: Prepared by Joe Student
3. Your University I.D Number
4. Course Name and Number
5. The Date
6. Submitted to Dr. Mohammed Ali

Your grade will reflect the quality of the presentation/paper.

Cell Phones:

Cell phones are to be seen and not heard (in a face-to-face class). Ensure you turn off your cell phone during classes or turn it into vibration mode. A ringing cell phone is a distraction and is inappropriate for the classroom. Allowing your cell phone to ring and then answering it is very rude. It is unfair to your classmates who have paid for this course. **Please be considerate and ensure your cell phone is turned off during your classes. Students will be asked to leave for the day if this behavior continues.**

Additional Course Management and Classroom Policies:

1. No retakes of quizzes or exams for "technical difficulties or internet interruptions." Get reliable technology or use the campus resources with Ethernet cabling, NOT Wi-Fi.
2. No excuses to leave the country and miss final exams or final presentations in class. A zero for these and any other assignments will be given.
3. No telephone usage in the classroom - texting, talking, social media, etc. You will be asked to leave the classroom and counted as absent for the day and NOT allowed to make up any assignments, quizzes, etc.

4. Talking during class while the professor is talking, a guest speaker, or during student presentations will be penalized. There will be no class participation points, up to 25% of the overall score.
5. If a student is more than 5 minutes late without an excuse, it is an absence. Three absences are an automatic reduction of a letter grade in the class.

Tentative Schedule

WEEK 1: Aug 24 – Aug 29, 2026

Course syllabus descriptions, class policies, and discussion

Chap 1: Quality Basics

WEEK 2: Aug 30 – Sep 5, 2026

Chap 2: Quality Advocates

WEEK 3: Sep 6 – Sep 12, 2026

Chap 3: Quality Management Sys: ISO 9000, Malcolm Baldrige Award, and Six Sigma

WEEK 4: Sep 13 – Sep 18, 2026

Chap 4: Quality Improvement: Problem-Solving – Plan Do Study Act (PDSA), Pareto Chart, Flow Chart, Cause and Effect Diagram

WEEK 5: Sep 19 – Sep 25, 2026

Chapter 5: Statistics

WEEK 6: Sep 26 – Oct 3, 2026

Exam 1 covers Chapters 1-5

WEEK 7: Oct 4 – Oct 10, 2026

Chapter 6: Variable Control Charts

WEEK 8: Oct 11 – Oct 17, 2026

Chapter 7: Process Capability

WEEK 9: Oct 18 – Oct 24, 2026

Chapter 8: Other Variable Control Charts

WEEK 10: Oct 25 – Oct 31, 2026

Chapter 9: Probability

WEEK 11: Nov 1 – Nov 7, 2026

Exam 2 covers Chapters 6 through 9

WEEK 12: Nov 8 – Nov 14, 2026

Chapters 10 and 11: QC Charts for Attributes and Reliability

WEEK 13: Nov 15 – Nov 21, 2026

Chapters 12 and 13: Advanced Topics in Quality and Quality Costs

WEEK 14: Nov 22 – Nov 28, 2026

Thanksgiving Holidays, No Classes

WEEK 15: Nov 29 – Dec 5, 2026

Chapter 14: Product Liability

WEEK 16: Dec 6 – Dec 12, 2026

The final Exam covers Chapters 10 through 14

Date of Final Exam: Opens on Mon 12/7/2026 at 12:01 am and due Fri 12/11/2026 at 11:59 pm.

Last Date to Withdraw from the course(s): October 30, 2026.

Census Date and Policies: Refer to the respective section below.

COVID Guidance

- ***Information for Classrooms and Laboratories:*** It is essential to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID, and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing, and vaccinations, which have slowed the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is essential to reduce exposure (CDC quarantine/isolation guidelines). Please work with your faculty members to maintain coursework and consult existing campus resources for support.

Technology Access:

This is an online course and will require reliable technology. Required technology includes:

Hardware:

- Desktop or laptop computer with internet access.
 - Note: If your internet connection is down, it is your responsibility to gain access to avenues such as the UTT computer lab (located in BEP 249 or HPR 134) and a public library to complete and submit your work on time.
- A camera, microphone, and speakers.

Software:

- A current operating system (Microsoft or Apple)
- A web browser (Internet Explorer, Chrome, Safari, Firefox, etc.)
- Access to Canvas and Patriot Mail. Note: Google Chrome does not support JAVA. Please do not use it for Soft Chalk lessons.
- Microsoft Office (Available at no charge to the student at <https://www.uttyler.edu/it/office365/proplus.php>)
- Note: Do NOT use Google Docs for writing assignments
- Also, use standard plug-ins such as Java, Flash, QuickTime, Adobe Reader, or another PDF reader like Preview on the Mac.
- Other software, as noted in each module, such as E-Portfolio

Technical Support:

Technology-related problems (e.g., Patriot email, Canvas, access problems to myUTTyler, etc.) can often be solved by calling the UT Tyler Information Technology Hotline (903) 565-5555 x2 or by emailing them at itsupport@patriots.uttyler.edu. In your email, be sure to include:

- The title and number of the course
- The Canvas page in the question
- A description and message number for any error message that you receive
- What were you doing at the time you got the error message?

Discrimination:

The policy of this department is to make your college experience as pleasant as possible. However, if you feel that you are being discriminated against, belittled, or not treated appropriately, please notify the instructor anonymously or in person immediately after class. It is not the intention of any of the faculty in this department to make your college experience unpleasant. Remember, the first step in the process is to inform the instructor so s/he can be aware of the problem and take corrective action. If the problem persists, please inform the department chair. The dean can then be notified if the problem continues after a few days. A grievance can then be filed in the Office of Student Services if there has still been no change in the instructor's behavior. It should be noted that filing a grievance is a profound act and should NOT be done just because you received a bad grade on an exam or in the course. Communication is an effective tool to solve problems and is rarely used enough. Most people are not deliberately trying to upset you; they are just unaware of your vantage point.

Offensive Language:

Any offensive language will not be tolerated in the classroom, laboratory, or online. How you speak to your friends outside the classroom is your business; however, when you are in the classroom, you must follow the University of Texas rules of conduct. **You will be asked to leave if your language or behavior is offensive.**

Required Activities Scheduled Outside of Regularly-Scheduled Class time (fees, tickets, procedures and forms required):

Read the textbook, review notes, and complete assignments.

Department Website: <https://www.uttyler.edu/soules-college-of-business/technology/tech>

Commencement: TBD; refer to the university website for updates

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>.

Artificial Intelligence Use Policy

UT Tyler is committed to exploring and using artificial intelligence (AI) tools appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged, as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional research approaches. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a

breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

I expect all work students submit for this course to be their own. I have carefully designed all assignments and class activities to support your learning. Doing your own work, without human or artificial intelligence assistance, is best for your efforts in mastering course learning objectives. For this course, **I expressly forbid using ChatGPT or any other artificial intelligence (AI) tools for any stages of the work process, including brainstorming.** Deviations from these guidelines will be considered a violation of UT Tyler's Honor Code and academic honesty values.

Campus Carry

We respect the rights and privacy of students 21 and over duly licensed to carry concealed weapons in this class. License holders must behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

UT Tyler, a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler campus, branch campuses, or any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, university affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs, please visit <http://www.uttyler.edu/tobacco-free>.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the semester's Census Date in which the course will be repeated. Check the Academic Calendar for the exact Census Date. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Please file a Grade Replacement Contract to avoid the original and repeated grade being used to calculate your overall grade point average. Undergraduates can exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students must be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, and approvals for taking courses such as Audit, Pass/Fail, or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or after that from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For this rule, a dropped course is any course dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and accompanied by documentation of the extenuating circumstance. Please get in touch with the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and the Americans with Disabilities Amendments Act (ADAAA), the University of Tyler at Texas offers accommodations to students with learning, physical, and psychological disabilities. Suppose you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, or ADHD, or you have a history of modifications or accommodations in a previous educational environment. In that case, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and to schedule an appointment with an Accessibility Case Manager. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150, or call 903.566.7079.

Student Absence Due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

Suppose you intend to be absent for a university-sponsored event or activity. In that case, you (or the event sponsor) must notify the instructor at least two weeks before the planned absence date. At that time, the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you need assistance during an evacuation, inform your instructor during the first week of class. Do not re-enter the building unless given permission by University Police, Fire Department, or Fire Prevention Services.

Student Standards of Academic Conduct: Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give an unfair advantage to a student or the attempt to commit such acts.

- (i) "Cheating" includes, but is not limited to:
- copying from another student's test paper;
 - using, during a test, materials not authorized by the person giving the test;
 - failure to comply with instructions given by the person administering the test;
 - possession during a test of materials not authorized by the person giving the test, such as class notes or specifically designed "crib notes." The presence of textbooks constitutes a violation if they have been expressly prohibited by the person administering the test;
 - using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
 - collaborating with or seeking aid from another student during a test or other assignment without authority;
 - discussing the contents of an examination with another student who will take the examination;
 - divulging the contents of an examination to preserve questions for use by another when the instructor has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
 - substituting for another person or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
 - paying or offering money or other valuable thing to or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, homework solution, or computer program;
 - falsifying research data, laboratory reports, and other academic work offered for credit;
 - taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
 - misrepresenting facts, including providing false grades or resumes, to obtain an academic or financial benefit or injure another student academically or financially.
- (ii) "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining another's work and submitting it as one's academic work offered for credit.
- (iii) "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to violate any section of the rules on scholastic dishonesty.
- (iv) All written work that is submitted will be subject to review by SafeAssign™, available on Canvas.

UT Tyler Resources for Students:

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu, <http://www.uttyler.edu/writingcenter/>
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu, <https://www.uttyler.edu/tutoring/>
- The Mathematics Learning Center, RBN 4021: This is the open-access computer lab for math students, with tutors on duty to assist students enrolled in early-career courses.

- UT Tyler Counseling Center (903.566.7254) <https://www.uttyler.edu/counseling/>

Note: The instructor reserves the right to modify this syllabus. However, the Canvas course's Syllabus link will have the most up-to-date syllabus at any point in the semester.