



Course Syllabus

Course QCT 1010 : Course Name: Introduction Quality Control

Division: Engineering and Industrial Technologies

Class Days: Class Time:
Location: Classroom: Laboratory:
Credit Hours: Contact Hours: Lab Hours: Lecture Hours:

Instructor: Office Location:
Phone: Email Address:

Office Hours: TBD

Division Office/Location: Engineering Building Division Fax: 419-334-2300

Full-time Contact Person: Jayne Bowersox Phone(s): (419) 559-2410

Course Description:

An overview of quality control functions including materials and processes, basic concepts of quality, costs, planning, basic statistical tools, vendor relations, motivation for quality, finished goods acceptance, customer relations, and quality assurance organizations.

Prerequisite(s): None

Corequisite(s): None

Entry Level Skills and Knowledge:

Required Texts, Supplies and Equipment:

- 1. *Text: Hutchins, Gregory B., "Introduction to Quality Management Assurance and Control", Macmillan Publishing Company (1991)
2. Statistical Calculator

*NOTE: Sections from the following may also be used:

Juran, J.M., and Gryna, F.M., Jr., "Quality Planning and Analysis", 2nd edition, McGraw-Hill (1980)

Grading:

1. Periodic homework is assigned to provide practice on a scheduled basis; it will not be collected or graded.
2. Special assignments may be made throughout the quarter; these may be collected and graded.
3. Grading basis:
 - *a. Daily grades (special assignments, midterm and final tests, in-class quizzes, class participation, etc.) 75%
 - b. Team projects 25%
 - c. Tests will be closed book and closed notes.

= A

= B

= C

= D

Below = F

Learning Outcomes:

General Education

1. **Communicate effectively**
2. **Evaluate arguments in a logical fashion**—Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). **Students will be able to demonstrate competence in problem solving in communication, mathematics, and in team settings.**
3. **Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities;** general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines.

General Education

- Be familiar with the steps involved in auditing (planning, conducting, and reporting)
- Be familiar with the key players in quality auditing (auditor, auditee, client)
- Be familiar with building quality into the design through design feasibility studies and design review and control
- Be familiar with the basic concepts, terms, and definitions used in reliability
- Be familiar with the "bath tub" curve model
- Be able to use the Exponential distribution for reliability applications
- Be able to determine component and system reliability
- Be able to calculate reliability for series, parallel, and series-parallel systems

- Be familiar with specific concepts and techniques of reliability and product safety
 - Design reviews
 - Hazard analysis
 - Fault-free analysis
 - Failure Mode and Effect Analysis (FMEAs)
 - Human factors

Learning Outcomes (cont'd)

- Be familiar with budgeting for quality and the economics of quality costs
- Be familiar with the terms and definitions involved in Quality Cost areas
- Be familiar with the planning involved in establishing a quality cost program
- Be familiar with cost data collection and tabulation techniques
- Know how a quality cost system is used for continuous improvement within a company

Assessment of Student Learning:

Assessment Project and Measurement in course (if any):

Plan of Work:

Week 1
 Week 2
 Week 3
 Week 4
 Week 5
 Week 6
 Week 7
 Week 8
 Week 9
 Week 10
 Week 11

Week 12
Week 13
Week 14
Week 15

Course Requirements:

Complete all assignments as required

Policies

Course Withdrawing: If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic “F.” Please follow official College procedure for withdrawing from this or any course.

College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at <https://www.terra.edu/register/Collegecat/policies.asp>.

Support Services: The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).