Product Reliability and Quality

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OFFICE : **Department of Engineering Technology-Discovery Park**
F115P :Tuesday and Thursday From 2:00pm to 3pm

COURSE NUMBER, TITLE, CREDIT HOURS:

MSET 5130, 3 credit hours

DESCRIPTION:

Processes and techniques of assuring the quality of industrial products; reliability and maintainability, sampling probability and statistical process control; quality control management

COURSE LEARNING OBJECTIVES:

1-Demonstrate an understanding of processes, techniques, involved in documenting, stabilizing and improving a process

2-Demonstrate an understanding of Reliability and Quality Management principles and relationships

COURSE LEARNING OUTCOMES

The course demonstrates that graduates have:
e. an ability to identify, formulate and solve engineering problems.
g. an ability to communicate effectively.
j. a knowledge of contemporary issues

PREREQUISITES:

MFET 4190 (or equivalent) or consent of department

TEXTBOOKS:

Quality Management; by Howard Gitlow, Rosa Oppenheim, Alan Oppenheim, and David Levine.Hercherpublishing.com

COURSE OUTLINE:

This course outline is the core of what is covered in the course. Research Material added as appropriate by the course instructor.

1 Fundamentals of Quality
2 W. Edwards Deming's Theory of Management
3 Defining and Documenting a Process
4 Stabilizing and Improving a Process with Control Charts
5 Application of Attribute and Variable Control Charts
6 Process Capability and Improvement Studies
7 A Business Example of Policy Management
8 Reliability Analyses
9 Reliability and Quality

GRADING ELEMENTS AND WEIGHTS:

Semester Exams (2)	30% each
Case Analyses	10%
Semester Project	30%