

## **Quality Assurance**

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**OFFICE :** Department of Mechanical Engineering -Discovery Park

**Tuesday and Thursday by appointment**

### **COURSE NUMBER, TITLE, CREDIT HOURS:**

MFET 4190, 3 credit hours

### **DESCRIPTION:**

Review of statistics and discussion of statistical process control (SPC). The study of quality management, including preproduction suppliers, in-process and finished, product quality, methods of statistical analysis and quality audits, costs, and employee training.

### **COURSE LEARNING OBJECTIVES:**

1-Demonstrate an understanding of statistical process control and techniques 2-Demonstrate an understanding of Quality Management principles

### **COURSE LEARNING OUTCOMES**

*The course demonstrates that graduates have:*

e. an ability to identify, formulate and solve engineering problems.

### **PREREQUISITES:**

MFET 3110 or consent of department

### **TEXTBOOKS:**

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

### **COURSE OUTLINE:**

- 1 Review of probability and statistics
- 2 Defining and Documenting a Process
- 3 Fundamentals of Quality
- 4 Statistical Process Control

5 Attribute Control Charts  
6 Variables Control Charts  
7 Stabilizing and Improving a Process with Control Charts

8 Costs of Quality

**GRADING ELEMENTS AND WEIGHTS:**

Semester Exams (3) 30%, 30%, 30% Homework 10%