

Master Course Syllabus

Department: Engineering Technology **Course Prefix/Number:** MQL 568

Official Course Title: Quality Management

Master Syllabus Approved by Department on: 10/27/2005

I. **Catalog Description:** The course focuses on manufacturing related principles and best practices reflected in ISO 9000 Standards. Topics included are: manufacturing process improvement; process orientation; quality function deployment; process control and capability; role of inspection; economics of quality; and productivity measurement. Emphasizes role of ISO certification in the global market along with the contributions of Deming, Juran, and Crosby.

II. **Prerequisites:** MQL 524 or concurrent enrollment

III. **Expanded Course Description:** Develop, deploy, and maintain systems of business practices that assure marketplace acceptance of the products and services provided by a company. We will compare and contrast the philosophical frameworks advocated by Quality founders such as Deming, Juran, and Crosby. The course will examine national (Malcolm Baldrige Award) and international (ISO 9000) Quality management system models that have become standards in the field. We will also review a variety of methods that have been used to implement the models. Case studies of award winning companies will be used to demonstrate successful practices. Local or hypothetical manufacturing companies will be evaluated to identify deficient practices and improvement strategies.

IV. **Knowledge Outcomes:**

1. Define and understand quality from many perspectives
2. Generate insights by understanding Quality Management philosophies. Appreciate current practices such as Malcolm Baldrige award system, ISO/QS 9000 and Six-sigma for improving quality of management
3. Know how waste and variation influence quality of product, service quality and cost.
4. Understand the process management concepts and know how to engage in problems solving for improvement using quality control and management tools as they are applied at the process level.
5. To learn tools of statistical process control as they are applied and used in manufacturing, processing industries, service and management.

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:

- a) Course Requirements? (grading/evaluation procedures; class attendance policy; term papers, projects, field assignments; examinations; class participation, etc.)
- b) Required Text(s)?

b) Bibliography?

Department Head Signature/Date:

Signature

_____/_____/_____
Date