

Master Syllabus

OPT 1112 - World Class Quality Systems & Procedures

Division: Science, Mathematics and Engineering

Department: Operations Technology

Credit Hour Total: 4.0

Lecture Hrs: 3.0 **Lab Hrs:** 2.0

Date Revised: December 2012

Course Description:

Improve customer relations, measure products and processes, analyze current process control and capability and define and audit the quality management system. Three classroom, two lab hours per week.

General Education Outcomes:

- ▣ Oral Communication Competency
- ▣ Written Communication Competency
- ▣ Critical Thinking/Problem Solving Competency
- ▣ Values/Citizenship/Community Competency
- ▣ Computer Literacy Competency
- ▣ Information Literacy Competency

Course Outcomes:

Statistical Process Control and Capability

Develop and interpret basic control charts, evaluate process capability, and recommend changes to achieve continuous improvement.

Assessment Method: Locally developed exams

Performance Criteria: At least 70% of students achieve a score of 70% or better on questions related to these topics

Basic Tools of Quality

Describe and utilize the 7 basic tools of quality such as pareto, fishbone, histogram, run charts, etc. as they apply to product and process improvements.

Assessment Method: Locally developed exams

Performance Criteria: At least 70% of students achieve a score of 70% or better on questions related to these topics

Basic Metrology

Describe and utilize basic hand-held, bench, and process measuring equipment along with more advanced measurements using Coordinate Measuring Machines.

Assessment Method: Locally developed exams

Performance Criteria: At least 70% of students achieve a score of 70% or better on questions related to these topics

Outline:

Customer Relations
Quality Systems
Basic Tools of Quality
Basic Metrology
Coordinate Measuring Machines
Continuous Improvement
Quality Costs
Statistical Process Control and Capability
Quality Audits