

## Master Syllabus

### OPT 1112 - World Class Quality Systems & Procedures

**Division:** Science, Mathematics and Engineering

**Department:** Operations Technology

**Credit Hour Total:** 3.0

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

**Date Revised:** January 2017

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#### Course Description:

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

#### General Education Outcomes:

- ▣ Critical Thinking/Problem Solving Competency
- ▣ Written Communication 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.

**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

Continuous Improvement

Quality Costs

Statistical Process Control and Capability

Quality Audits