

## Master Syllabus

### OPT 1101 - Introduction to Operations

**Division:** Science, Mathematics and Engineering

**Department:** Operations Technology

**Credit Hour Total:** 3.0

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

**Date Revised:** October 2013

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### Course Description:

Introduction to operations process design, process improvement and the skills, methods and techniques used to accomplish this; the interactions and relationships between people and process change and the interactions between different processes in organizations. Two classroom, two lab hours per week.

### General Education Outcomes:

- Oral Communication Competency
- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Computer Literacy Competency
- Information Literacy Competency

### Course Outcomes:

#### Control of Processes

After improving a process, develop techniques and methods to keep the process running correctly over time.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on course tests

**Assessment Method:** Simulations

**Performance Criteria:** Run improved process using new process controls demonstrating an improvement level of 10% over previous process

#### Process Evaluation

Demonstrate the ability to collect process performance data and evaluate process outcomes and productivity.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on course tests

**Assessment Method:** Simulations

**Performance Criteria:** Run a lab process, analyze the results, improve it and rerun and demonstrate at least a 10% improvement

#### Process Improvements

After evaluating process outcomes, develop alternatives for process improvements, evaluate the alternatives then select and apply the best one to use.

**Assessment Method:** Performance appraisals

**Performance Criteria:** Evaluate improved processes vs. prior process results based on evaluation rubric achieving at least a 70% score

**Assessment Method:** Simulations

**Performance Criteria:** Run an improved process and evaluate improvements in productivity and quality. New process must show at least a 10% improvement over previous process.

### Outline:

What is a process?  
Productivity  
Evaluation of processes using statistics and graphical tools  
Process evaluation tools and methods  
Process control charts and methods  
Process improvement techniques and methods  
Process simulation