Sinclair Community College
444 E. Third St.
Dayton, OH 45402

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

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 demonstating an improvement level of 10% over previous process

Process Evaluation
Demonstrate the ability to collect process perfromance 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