

Master Syllabus

OPT 2205 - Manufacturing Processes

Division: Science, Mathematics and Engineering

Department: Operations Technology

Credit Hour Total: 3.0

Lecture Hrs: 3.0

Prerequisite(s): OPT 1101

Date Revised: June 2014

Course Description:

Students will gain a basic understanding of manufacturing processes within a safe working environment.

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:

Relationships between safety, profitability and quality.

Identify the safety and quality components of a profitable manufacturing process by using process planning, computer integrated manufacturing, and group technology.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer 70% of exam questions

Assessment Method: Portfolios

Performance Criteria: Score 70% of possible points for portfolio presentation

OSHA standards for industry

Recognize safe and unsafe work practices, comprehend reporting requirements for safety concerns, and conduct material selections.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer 70% of exam questions

Assessment Method: Portfolios

Performance Criteria: Score 70% of possible points for portfolio presentation

Process plans

Describe, compare and contrast several types of manufacturing processes and equipment and integrate safe OSHA behavior practices.

Assessment Method: Locally developed exams

Performance Criteria: Correctly answer 70% of exam questions

Assessment Method: Portfolios

Performance Criteria: Score 70% of possible points for portfolio presentation

Outline:

History of manufacturing processes
Taxonomy of manufacturing processes
Material properties
Casting
Molding
Shearing
Forming
Machining
Joining
Finishing
Process planning
10 hours OSHA training