

## 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
- Written Communication
- Critical Thinking/Problem Solving
- Values/Citizenship/Community
- Computer Literacy
- Information Literacy

### 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