

## **Manufacturing Processes I**

### **ENGRTEC 1500**

#### **Credit Hours:**

3.00

#### **Course Levels:**

Undergraduate (1000-5000 level)

#### **Course Components:**

Lecture

Lab

#### **Course Description:**

History of manufacturing, tools and machines, and operations of the machine shop equipment. Opportunity to function individually and on teams, and communicate effectively to learn to work in groups to accomplish a task. The skills learned from this class are transferable to all areas of day to day professional life which makes it valuable in other contexts.

#### **Course Goals / Objectives:**

- Ability to write in a clear and concise manner and to be able to convey information appropriately for technical reports
- Understandingthe operations of the basic functions machine shop equipment and equipment selection to perform an operation
- Understand the history and current tools of the discipline and their range

#### **Course Topics:**

- Introduction to Manufacturing Process
- Measurements/Layouts
- Basic Machine Tools
- Metal cutting, Saws and Drilling Machines
- Grinding/Sanders
- Drilling Machines
- Lathe Machines
- Milling Operation
- Journal Article Review and Presentations

# **Designation:** Required