MECHANICAL ENGINEERING PROGRAM

ABET COURSE SYLLABUS

ME 130: Machine Shop Practices (1 credit): Elective Course

Course Description (2008-2010 Catalog):

Introduction to basic machining processes. Safety practices. Cutting theory. Use of lathe, milling machines, and other devices.

Prerequisite Course: None

Prerequisite by Topic:

- N/A

Textbook: None

Other Reference Material: N/A

Course Coordinator: Kevin Nelson, Professional Staff

Course learning outcomes:

(a) To familiarize the student with basic shop safety, metal fabrication and machine shop equipment.

Relationship of Course to Mechanical Engineering Program Educational Outcomes:

Goal1: Provide mechanical engineering graduates with technical capabilities.					Goal 2: Prepare the mechanical engineering graduates to have effective workplace skills.				Goal 3: Instilling a sense of responsibility as a professional member of society.			
1.a	**1.b**	**1.c**	**1.d**	**1.e**	**2.a**	**2.b**	**2.c**	**2.d**	**3.a**	**3.b**	**3.c**	**3.d**

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Topics Covered:

1. Shop Safety
2. Basic wood fabrication, tools, and techniques
3. Basic Metal fabrication, tools, and techniques
4. Drilling and drill presses
5. Milling, endmills, and milling machines
6. Turning, lathe tools and lathes
7. TIG and MIG welding

Laboratory Projects:

1. Mill project
2. Lathe project

Class/Laboratory Schedule: 75 minutes laboratory, one session per week

Assessment of Student Progress toward Course Objectives

Attendance, two projects, and final exam

Class/Laboratory Schedule: T 3:00-4:15 PM (Fall Semester)

Contribution of Course for meeting Professional Component:

(a) Mathematics and basic sciences: 0 credit

(b) Engineering Topics (Design/Science): 0 credit

(c) General Education: 0 credit

(d) Others: 0 credits

Prepared By: **Date:**

Kevin Nelson October 2, 2009