

# Bemidji State University

## IT 1310: Mechanical Power

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

An introduction to the general field of power. Theory and operation of the power source converters and a study of the sources themselves. Covers the sun, fuels, external combustion, turbojet, diesel and gas turbine operation.

**B. COURSE EFFECTIVE DATES:** 08/26/1997 - 08/24/2014

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Work, Force, Horsepower, Torque
2. Horsepower, torque, speed
3. RPM, Drive and Driven Ratios
4. Metrics and Leverage
5. Fluid Power
6. Tool Test

### D. LEARNING OUTCOMES (General)

1. understand basic concepts concerning internal combustion engines
2. successfully disassemble and assemble an internal combustion engine
3. recognize the application for various types of power transmission
4. have the ability to perform basic power transmission calculations
5. understand the functions of the components found in a power transmission system.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted