COMMON COURSE OUTLINE:  Course discipline/number/title:  PMT 1105: Shop Safety, Manual Mill & Lathe Theory

A.   CATALOG DESCRIPTION
   1.  Credits:  1 credit lecture/0 credits lab
   2.  Hours/Week:  1 hour lecture/0 hours lab
   3.  Prerequisites (Course discipline/number):  PMT 1095, PMT 1115, PMT1255, PMT 1300
   4.  Co-requisites (Course discipline/number):  None
   5.  MnTC Goals (if any):  NA

   This course describes the basic components of a manual mill and lathe. Emphasis will also be placed on safe application and handling of the equipment.

B.   DATE LAST REVISED (Month, year):  January, 2015

C.   OUTLINE OF MAJOR CONTENT AREAS:
   1.  Practice shop safety
   2.  Definition of a Mill and Lathe
   3.  Types of Mills and Lathes
   4.  Basic components of Vertical Mill, a knee Milling Machine and an Engine Lathe
   5.  The Milling Head: Speed and Feed Controls
   6.  Common milling operations
   7.  Milling: Toolholders, Drawbars, Cutting Tools and Workholding Devices
   8.  Lathe size and Spindle Depth
   9.  Lathe: Headstock, Spindle, Carriage and Tailstock
   10.  Lathe: Inner and Outer-Diameter Cutting Operations

D.   LEARNING OUTCOMES (GENERAL):  The student will be able to:
   1.  Identify the basic components of a mill and lathe.
   2.  Describe the basic components of a manual mill and lathe.
   3.  Practice and perfect the use of basic components of a manual mill and lathe.
   4.  Demonstrate safe use of the manual mill and lathe.
   5.  Set up the equipment safely.

E.   LEARNING OUTCOMES (MNTC):  NA

F.   METHODS FOR EVALUATION OF STUDENT LEARNING:
   Evaluation is through successful completion of:
   1.  Lessons
   2.  Assessments
   3.  Tests

G.   RCTC CORE OUTCOME(S) ADDRESSED:
   Communication  Civic Responsibility
   Critical Thinking  Personal/Professional Accountability
   Global Awareness/Diversity  Aesthetic Response

H.   SPECIAL INFORMATION (if any):  None