COMMON COURSE OUTLINE:  Course discipline/number/title:  CAD 1225: Engineering Drafting II

A. CATALOG DESCRIPTION
   1. Credits: 2
   2. Hours/Week: 0 hour lecture 4 hours lab
   3. Prerequisites (Course discipline/number):  CAD 1224, CAD 1230, CAD 1234
   4. Co-requisites (Course discipline/number):  None
   5. MnTC Goals (if any):  NA

   This course is a continuation of CAD 1224. It is focused upon the application of drawing theory and the principles of industrial drafting practices in the mechanical field. This course allows the students to develop better skills and to improve their speed when creating and detailing working drawings. It also will expose the students to several advanced engineering drafting topics including an introduction to geometric dimensioning and tolerancing. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of AutoCAD.

B. DATE LAST REVISED (Month, year):  April, 2010

C. OUTLINE OF MAJOR CONTENT AREAS:
   1. Dimension standards and conventions
   2. Tolerancing
   3. Standard fits
   4. Introduction to Geometric Tolerancing

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
   1. Develop working knowledge of dimensioning and tolerancing for detailed drawings
   2. Use conventional dimensioning techniques to describe engineering drawings
   3. Evaluate the correct placement of dimensions, notes and etc. on drawings
   4. Specify tolerances in a variety of formats including limits and plus/minus
   5. Determine dimensions for mating parts based on ANSI and Metric fits
   6. Describe the basic hole and shaft systems
   7. Identify the geometric tolerancing symbols and describe how each is used
   8. Demonstrate the proper use of geometric tolerancing symbols in a variety of working drawing

E. LEARNING OUTCOMES (MNTC):  NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
   1. Evaluation of electronic files
   2. Skill proficiency exercises
   3. Quizzes
   4. Exams

G. SPECIAL INFORMATION (If any):
   Tuition differential