COMMON COURSE OUTLINE: Course discipline/number/title: CAD 1234: CAD I

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

This course is an instructor led basic training course for new CAD users. The course shows how to use CAD to set up drawings, use basic drawing and editing tools, add text and dimensions. Students will use CAD to obtain information about their drawings and work with drawing files. All CAD courses will be taught in a state-of-the-art facility featuring the latest release 2D CAD or SolidWorks.

B. DATE LAST REVISED (Month, year): April, 2011

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Introduction to Computer-Aided Drafting
   a) Drawing setup
   b) Intro to drawing and drawing aids
   c) Saving drawing
2. Drawing with CAD
   a) Drawing and erasing lines
   b) Geometric construction and object snap
   c) Placing text on a drawing
3. Editing and drawing
   a) Basic editing commands
   b) Automatic editing
   c) Array
   d) Obtaining information about the drawing
   e) Working and drawing files
4. CAD applications
   a) Plotting, printing
   b) Multiview drawing layout
   c) Basic dimensioning
   d) Advanced dimensioning and tolerancing
   e) Isometric drawing

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Utilize basic manipulation commands.
2. Make multiview layouts and plot or print drawings.
3. Use coordinate systems.
4. Create blocks.
5. Use layers and line types.
6. Dimension a drawing.
7. Create an isometric drawing.
8. Use basic and advanced CAD editing commands.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
1. Tests
2. Quizzes
3. Drawings
G. RCTC CORE OUTCOME(S) ADDRESSED:
- Communication
- Critical Thinking
- Global Awareness/Diversity
- Civic Responsibility
- Personal/Professional Accountability
- Aesthetic Response

H. SPECIAL INFORMATION (if any):
Tuition differential