COMMON COURSE OUTLINE: Course discipline/number/title: CAD 1123: Technical Illustration

A. CATALOG DESCRIPTION
   1. Credits: 2
   2. Hours/Week: 1 hour lecture, 2 hours lab
   3. Prerequisites (Course discipline/number): CAD 1039, CAD 1200, CAD 1220, and CAD 1221 or instructors’ permission
   4. Co-requisites (Course discipline/number): CAD 1120, CAD 1150, CAD 1222, CAD 1323
   5. MnTC Goals (if any): NA

This course will cover the techniques used for generating pictorial drawings using CAD. The student will become familiar with a variety of applications in which pictorial drawings produced within a CAD program are used to illustrate technical information outside of CAD. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks.

B. DATE LAST REVISED (Month, year): April, 2013

C. OUTLINE OF MAJOR CONTENT AREAS:
   1. Axonometric and Pictorial views
      a) Isometric
      b) Dimetric
      c) Trimetric
      d) Pictorial applications
      e) Perspective views
      f) Repair Parts Diagrams
      g) Rendering
      h) Exporting geometry
      i) Integrating CAD data with other applications
      j) Assembly instruction sheets

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
   1. Produce axonometric and perspective views using CAD
   2. Export CAD data to other programs for use as an illustration
   3. Describe a variety of technical illustration applications
   4. Explain the pros and cons of the different types of views
   5. Create documents using imbedded illustrations

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

H. SPECIAL INFORMATION (if any):
   Tuition differential