Course Objectives/Course Outline
Spokane Community College

Course Title: Mechanical Design Fundamentals
Prefix and Course Number: CAD 242

Course Learning Outcomes:
By the end of this course, a student should be able to:

- recognize, determine sizes, and draw the various types of threads, fasteners, and springs
- recognize, determine sizes, determine loading, and draw various machine components

Course Outline:
I. Design and Drawing of Threads, Fasteners, and Springs
   A. Terminology
   B. Design Characteristics
   C. Component Sizing
   D. Design Loads
II. Design of Machinery Components: Belt and Chain Drives, Couplings, Bearings, etc.
   A. Terminology
   B. Design Characteristics
   C. Component Sizing
   D. Design Loads
III. Engineering Change Orders
   A. Function
   B. Required Information
IV. Cam Design
   A. Function
   B. Terminology
   C. Cam Motions
V. Fixture Design
   A. Assembly Operation
   B. Standard Design Techniques
VI. Sheet Metal Layout Drawings