Course Objectives/Course Outline
Spokane Community College

Course Title: Project Design & Management
Prefix and Course Number: CAD 261

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

- Apply knowledge from all program technical courses and principles when designing typical Basic engineering systems
- Prepare assembly and detail drawings as required for a given project
- Prepare a project plan, document its progress, and prepare a full engineering report

Course Outline:
I. Technical Principles
   A. Determination of Power Requirements
   B. Design Techniques for Mechanical Advantage
   C. Efficiency and Friction Loss in Machines
   G. Stress Determination and Analysis
   H. Time-Motion Concepts
   I. Power Transmission Systems

II. System Designs
   A. Belt Drives
   B. Chain Drives
   C. Gear Drives
   D. Bearings and Seals
   E. Cams and Linkages

III. Project Design Process
   A. Project Proposal Plan
   B. Documentation and Reporting
   C. Process of Prototyping, Evaluation, Justification, and Modification