Course Objectives/Course Outline
Spokane Community College

Course Title: Schematics/Advanced CAD
Prefix and Course Number: CAD 268

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

- Generate flow diagram and logic diagram drawings
- Use industry standards and symbols when producing electronic, electrical, circuit board, integrated circuits, hydraulic, and pneumatic schematic drawings and ladder logic diagrams

Course Outline:

I. Flow and Logic Diagram Drawings
   A. Basic Theory and Design

II. Electronic Schematic Drawings
   A. Industry Standard Symbols and Formats

III. Electronic Printed Circuit Board/Integrated Circuit Drawing/Design
   A. Manufacturing Process
   B. Printed Circuit Board Designs
   C. Integrated Circuits

IV. Industrial Electricity Hardware
   A. Components
   B. Catalog Specifications
   C. Ordering Procedures
   D. Industrial Controls

V. Industrial Electricity Schematics
   A. Industry Standard Symbols
   B. Circuit and Timing Schematics

VI. Interconnecting Schematics
   A. Electronics
   B. Industrial Electricity Controls
   C. Fluid Power
   D. Programmable Logic Controls

VII. Fluid Power Schematics
   A. Hydraulics
   B. Pneumatics

VIII. Programmable Logic Controls
   A. Definitions and Uses
   B. Basic Programming Functions

IX. Advanced CAD Functions
   A. Advanced AutoCAD
   B. Advanced SolidWorks