Course Objectives/Course Outline
Spokane Community College

Course Title: MACHINE CONTROLS
Prefix and Course Number: CAD 263

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

- understand the uses of machine control mechanisms
- be able to perform basic programming functions

Course Outline:

I. Introduction and History of Electrical Control systems
II. Control system components
   A. Motors and Motor Starters
   B. Relays, Timers, and Counters
   C. Switches and Pushbuttons
   D. Sensors
III. Relay Control Systems
   A. Ladder Logic Design
   B. Wiring Design
IV. Programmable Logic Control
   A. History and Definition of PLC controllers
   B. Programming Software
V. Logic Circuit Design
   A. Inputs/Outputs
   B. Holding/Locking Circuits
   C. Sequencing Circuits
   D. Counting and Timing Circuits
   E. Advanced Logic