Course Objectives/Course Outline
Spokane Community College

Course Title: Technical Applications I
Prefix and Course Number: CAD 255

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

— Develop relevant engineering and manufacturing skills independently of structured courses.
— Work individually and in groups to complete design projects from start to finish including project documentation, working drawings, prototyping, and design validation.
— Set up and operate equipment using new technologies in industry, like 3D printers and other rapid prototyping equipment.

Course Outline:

I) Project Packet Documents
   A) Project Specification Sheet
   B) Project Proposal
   C) Project Planning Chart
   D) Cost Analysis
   E) Project Post Mortem

II) Possible Research Projects
   A) Brainstorming
   B) Problem solving
   C) Physical concepts
   D) Mechanism design

III) Technology Applications
   A) CAD drafting and solid modeling
   B) Use of new technologies in industry like 3D printers and Laser cutter
   C) Use of shop equipment

IV) Structured Drafting/Design Projects
   A) Project Spec Sheet
   B) Drawing Set
   C) Prototype and validation

V) Independent Drafting/Design Projects
   A) Project Proposal
   B) Drawing Set
   C) Prototype and validation