

Course Objectives/Course Outline
Spokane Community College

Course Title: Structural CAD Applications

Prefix and Course Number: CAD 244

Course Learning Outcomes:

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

- Generate production type structural design working drawings
- Describe the design factors and shop drawing requirements for fabricated, welded, assembled parts
- Generate the required types of assembly drawings found in the structural design industry

Course Outline

- I. Working/Detail Drawings
 - A. Stock Material Selection
 - B. Catalog Information Selection
 - C. Single/Multiple Detail Formats
 - D. Drawing Number Systems and Documentation
- II. Assembly Drawing Layout
 - A. Types of Assembly Drawings
 - B. Information Utilized
 - C. Numbering Conventions
- III. Engineering Office/Design Specifications
 - A. Personnel
 - B. Physical Structure
 - C. Technician Responsibilities
 - D. Customer/Government Specifications
- IV. Design and Drawing of Weldments, Fabrications, Footings, and other structural elements and various details in industry-relevant design layout styles
 - A. Terminology
 - B. Symbols
 - C. Strength Characteristics
 - D. Full detail and assembly drawings