

## Course Outline

**Winter 2005**

**Division:** Business, Engineering & Information Technology

**Program/Dept:** Architectural Engineering Drafting

**Course Number:** TDR 265    **Credits:** 5    **Variable:**

**Course Title:** Structural Detailing

**Inst. Intent:** 21 Vocational Preparatory    **CIP:** 15.1304

**Fee:** No    **Type:**

**Degree/Certificate Requirement:** Yes

**Name of Degree/** Architectural Engineering Drafting

**Certificate Requirements:** Associate of Applied Science Degree.

**Distribution Requirement for AA/AAS:** Yes

**Transfer Status to 4-year institution:** No.

**If yes, please describe:** (May transfer to certain schools w/ special transfer agreements)

**Course Length:** Based on 11 wks/qtr.    **Class Size:** 22

**Course Contact Hours:** 55hrs.

**Lecture:** 55    **Lab:**    **Clinical:**    **Other:**

**Prerequisite:** No    **If yes, please describe:**

**Required Placement Tests:** No    **If yes, please describe:**

**Comments:**

### **Course Description:**

A basic course in the preparation of shop drawings for both structural and reinforcing steel using guidelines from American Institute of Steel Construction and Concrete Reinforcing Institute. Local shop detailing procedures will be followed. Open lab.

**Course Outcomes/Learning Objectives:**

1. To acquaint the student with design drawing interpretation to develop detail drawings.
2. To develop student skills for production of shop drawing for structural and reinforcing steel.
3. To encourage the student to recognize the relationship of design to real construction procedures.

**NSSC General Education Outcomes and/or Related Instructional Outcomes (for technical courses) Met by Course:**

- Outcome 4. Demonstrate the ability to access, evaluate and apply information from a variety of sources and a variety of contexts.
- Outcome 6. Demonstrate the ability to work and communicate effectively in groups.

**Topical Outline and/or Major Divisions:**

- I Introduction to TDR 265**
  - A. Course content
  - B. Class procedures
  - C. Course objectives
- II General Discussion of Steel, a Review**
- III. Introduction to Structural Steel Detailing**
  - A. Preparation of shop drawings
    1. Simple beams with bolted connections
    2. Erection plans
    3. Columns
    4. Diagonal bracing
  - B. List of materials
- IV. Introduction to Reinforcing Steel Detailing**
  - A. General discussion of concrete construction
  - B. Preparation of shop drawings
    1. Placing plans
    2. Bar lists
- V. Introduction to Detailing of Other Structural Elements**
- VI. Evaluation**

**Course Requirements (Expectation of Students):**

Attendance and active participation in assignments.

**Methods of Assessment/Evaluation:** Review of assigned projects

**Required Text(s) and/or Materials:** As selected by Instructor.

**Supplemental Text(s) and/or Materials:** AISC Manuals and ACI and CRSI publications.

**Outline Developed by:** James Wall

**Date:** 2/97

**Revised by:** James Wall

**Date:** 12/00, 2/02, 5/04