

METROPOLITAN STATE COLLEGE of DENVER  
Office of Academic Affairs

**REGULAR COURSE SYLLABUS**

School of: Professional Studies

Department: Engineering Technology

CIP Code: 15.0201

Prefix & Course Number: CET 2100 Crosslisted With\*: \_\_\_\_\_

Course Title: Structural Drawing

Check All That Apply: Required for Major:  Required for Minor: \_\_\_\_\_ Specified Elective: \_\_\_\_\_  
Required for Concentration: \_\_\_\_\_ Elective: \_\_\_\_\_ Service Course: \_\_\_\_\_

Credit Hours: 3 (1+4)

Total Contact Hours per semester (assuming 15-16 week semester):

Lecture 15 Lab 60 Internship 0 Practicum 0 Other (please specify type and hours): \_\_\_\_\_

Schedule Type(s): B Grading Mode(s): L

Variable Topics Courses (list restrictions, including the maximum number of hours that can be earned\*\*):  
\_\_\_\_\_

\*\* NOTE: This information must be included in the course description.

Restrictions (Variable Topics Course): \_\_\_\_\_

Prerequisite(s): CET 1215 with a grade of "C" or better; or permission of instructor.

Corequisite(s): None

Prerequisite(s) or Corequisite(s): \_\_\_\_\_

Banner Enforced:

Prerequisite(s): \_\_\_\_\_

Corequisite(s): \_\_\_\_\_

Prerequisite(s) or Corequisite(s): \_\_\_\_\_

**Catalog Course Description:**

This course introduces drawings of structural members and connections, including engineering layouts and detail drawings.

**Required Reading and Other Materials will be equivalent to:**

Madsen, Madsen, Turpin (2007). *Engineering Drawing & Design*. Thompson Delmar Learning Brooks/Cole

**Specific, Measurable Student Behavioral Learning Objectives:**

APPROVED:		<u>3 Apr 08</u>
Department Chair OR Program Director	_____	Date
Dean OR Associate Dean		<u>4/8/08</u>
Associate VP, Academic Affairs		<u>5/19/08</u>
		Date

\*If crosslisted, attach completed Course Crosslisting Agreement Form

Prefix and Course Number: CET 2100

Upon completion of this course the student should be able to:

1. Apply conventional methods, dimensioning and symbols used in structural design and detailing.
2. Produce detailed structural drawings of members and connections of wood structures.
3. Produce detailed structural drawings of members and connections of concrete structures.
4. Produce detailed structural drawings of members and connections of steel structures.

**Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision):**

- I. Steel Details
  - A. Beams and columns, bolts, and welds
  - B. Trusses
  
- II. Concrete Details
  - A. Footings and foundations with reinforcing steel
  - B. Beams and columns
  - C. Pre-stressed concrete members
  
- III. Masonry Details
  - A. Brick
  - B. Block
  
- IV. Wood Details
  - A. Wall sections
  - B. Trusses
  
- V. Laboratory Assignments
  - A. Determination of necessary information for detail drawing preparation
  - B. Preparation of detail structural drawings

**Evaluation of Student Performance:**

1. Written examinations
2. Assigned laboratory problems