

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 4410

Crosslisted With*: _____

Course Title: Steel Design II

Check All That Apply: Required for Major: _____ Required for Minor: _____ Specified Elective: X

Required for Concentration: X Elective: X Service Course: _____

Credit Hours: 3 (3+0)

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

Lecture 45 Lab 0 Internship 0 Practicum 0 Other (please specify type and hours): _____

Schedule Type(s): L 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 4400 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): _____

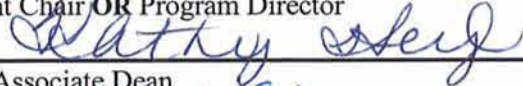
Prerequisite(s) or Corequisite(s): _____

Catalog Course Description:

This course is a continuation of the fundamentals introduced in Steel Design I, with emphasis on the analysis and design of structural steel connections, based on the latest AISC design requirements and specifications for structural steel.

APPROVED: 

Department Chair OR Program Director



Dean OR Associate Dean



Associate VP, Academic Affairs

30pi 08

Date

4/8/08

Date

5/19/08

Date

*If crosslisted, attach completed Course Crosslisting Agreement Form

CET 4410:

Required Reading and Other Materials will be equivalent to:

1. Segui, William (2007). *LRFD Steel Design 4th (or current) edition*. Thompson Delmar Learning Brooks/Cole
2. American Institute of Steel Construction (AISC) (2006). *Manual of Steel Construction, current edition*. AISC

Specific, Measurable Student Behavioral Learning Objectives:

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

1. Develop working familiarity with the AISC design requirements and specifications for structural steel.
2. Explain the fundamental analysis and design techniques required for the design of structural steel members.
3. Conduct design analysis of structural steel members in accordance with design codes.
4. Analyze steel structures for stresses and deformations.

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

- I. Structural Steel Design:
 - A. Analysis and Design of Structural Members Subjected to Bending and Axial Forces (Beam Columns)
 - B. Analysis and Design of Bolted Connections
 - C. Analysis and Design of Welded Connections
 - D. Analysis and Design of Building Connections
 - E. Analysis and Design of Composite Beams
 - F. Analysis and Design of Composite Columns

Evaluation of Student Performance:

1. Homework assignments
2. Written examinations
3. Oral presentation on faculty-assigned topic