

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 3110

Crosslisted With*: _____

Course Title: Construction Estimating

Check All That Apply: Required for Major: _____ Required for Minor: _____ Specified Elective:
Required for Concentration: Elective: 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 3100 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 CET 3100, Construction Methods. It provides a basic understanding of the methods used to prepare a building and/or bridge construction cost estimate. The students learn to do quantity takeoff utilizing plans and specifications.

APPROVED: [Signature]

Department Chair OR Program Director

3 Apr 08
Date

[Signature]

Dean OR Associate Dean

4/8/08
Date

[Signature]

Associate VP, Academic Affairs

5/19/08
Date

*If crosslisted, attach completed Course Crosslisting Agreement Form

Prefix and Course Number: CET 3110

Required Reading and Other Materials will be equivalent to:

Peurifoy, Robert L., Oberlender, Garold D. (2002). *Estimating Construction Costs w/ CD-ROM, 5th (or current) edition.* McGraw-Hill

Specific, Measurable Student Behavioral Learning Objectives:

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

1. Determine quantity of various building materials
2. Develop bid costs for materials, labor and equipment for several construction project elements.
3. Evaluate total cost of engineering projects, including labor fringes, taxes, bonding fees, insurance, overhead and profit.

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

- I. Review Specifications and Plans
 - A. Invitation to bid
 - B. General conditions
 - C. Special conditions
 - D. Bid form
- II. Detailed Quantity Survey
 - A. Concrete
 - B. Masonry
 - C. Steel
- III. Quantity Survey
 - A. Labor
 - B. Material
 - C. Equipment
 - D. Subcontractor
- IV. Summary of Total Project Costs
 - A. Labor, material, equipment and subcontractor costs
 - B. Labor fringes, taxes and insurance costs
 - C. Material and equipment taxes
 - D. Bond and insurance costs
 - E. Overhead and profit

Evaluation of Student Performance:

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