

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 3100

Crosslisted With\*:       

Course Title: Construction Methods

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): At least junior standing, 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 provides a basic understanding of the methods used by a general contractor to determine earthwork costs. The student is introduced to the application of engineering fundamentals for the analysis of heavy earth-moving equipment, as well as to the basic concepts of CPM.

APPROVED:

Richard P. Papp  
Department Chair OR Program Director

1/27/2010  
Date

Walter A. Kelly  
Dean OR Associate Dean

2/1/2010  
Date

Sheila A. Thompson  
Associate VP, Academic Affairs

5/4/10  
Date

Prefix and Course Number: CET 3100

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

Peurifoy, Robert L., Schexnayder, Clifford J., Shapira, Aviad.(2006). *Construction Planning, Equipment, and Methods*. McGraw-Hill

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

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

1. Apply the principles of the Critical Path Method as they apply to construction.
2. Distinguish standard types of heavy equipment used in construction.
3. Evaluate the construction equipment productivity.

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

- I. The Critical Path Method (CPM)
  - A. Fundamentals of the CPM
  - B. Application of the CPM to construction methods
- II. Applied Construction Methods
  - A. Construction equipment
  - B. Job site application
- III. Earth Moving Equipment and Production Rates
- IV. Other Construction Equipment and Production Rates
- V. Concrete Batch Plants
  - A. Concrete mix design
  - B. Material handling and batching
- VI. Planning for Building Construction

**Evaluation of Student Performance:**

1. Assigned homework problems
2. Written exams and quizzes
3. Group project and presentation