

CMCE 2421: CONSTRUCTION MANAGEMENT III

Equivalent to old course: CMCE 2420

Course Description:

Builds on the concepts developed in Construction Management II to give a thorough understanding of the current practices for planning, documenting, managing, and analyzing construction projects. Students use industry standard computer scheduling software in preparing a Critical Path Method (CPM) project schedule and study the use of value engineering (VE) workshop to reduce construction costs.

Prerequisites: CMCE 2321 or department approval
3 Class hours, 3 credits

Textbook: Construction Project Administration, Fisk and Reynolds, 10th edition, Pearson 2014.

Reference: Documents available from General Contractor's Association and OSHA.

Program Criteria

ABET, Inc. is the nationally recognized accrediting body for engineering technology programs. The CMCE department has adopted the most current ABET Program Criteria. Graduates of baccalaureate degree programs typically specify project methods and materials, perform cost estimates and analyses, and manage construction activities. The CMCE curriculum provides instruction in the following areas:

- Utilization of techniques that are appropriate to administer and evaluate construction contracts, documents, and codes (Criterion a);
- Demonstrate utilization of measuring methods, hardware, and software that are appropriate for field, laboratory, and office processes related to construction (Criterion c);
- Production and utilization of documents related to design, construction, and operations (Criterion e);
- Selection of appropriate construction materials and practices (Criterion g);
- Application of appropriate principles of construction management, law, and ethics (Criterion h);

Student Outcomes

The CMCE department has adopted the most current ABET student outcomes criteria. Student performance in this course will be assessed based on the following learned capabilities:

- An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline (Criterion 1);
- An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline (Criterion 2);
- An ability to apply written, oral, and graphical communication in broadly defined technical and non-technical environments; and an ability to identify and use appropriate technical literature (Criterion 3);

Academic Integrity Policy

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity.

Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, or expulsion.

Course Outline

Week	Topic	Reading/Text Reference	Lab Assignment
1	Planning for Construction.	Chapter 13, pp 326-351.	
2	Planning for Construction Cont'd	Chapter 13, pp 326-351	
3	Planning for Construction Cont'd	Chapter 13, pp 326-351	
4	Fundamentals of CPM Construction Scheduling:	Chapter 14, pp 352-389	Manual Practice
5	Fundamentals of CPM Construction Scheduling Cont'd.:	Chapter 14, pp 352-389	Manual Practice
6	Fundamentals of CPM Construction Scheduling –	Chapter 14, pp 352-389	MANUAL LAB. PROBLEM
7	Mid-Semester Examination Term Project Issued on Blackboard..		
8	Fundamentals of CPM Construction Scheduling –	Chapter 14, pp 352-389	COMPUTER LAB. PROBLEM
9	Value Engineering.	Chapter 16, pp 407-419	
10	Value Engineering Cont'd.	Chapter 16, pp 407-419	VE Lab Session
11	Construction Safety.	Chapter 9, pp 230-246 and handout.	
12	Construction Safety continued. Project Due Today.	Chapter 9, pp 230-246 and handout.	Construction Safety Review lab and Discussion
13	Project Closeout: Chapter 21, pp 577-614 and notes.	Chapter 21, pp 577-614 and handouts.	
14	Project Closeout continued. Chapter 21, pp 577-614 and notes.	Chapter 21, pp 577-614 and handouts.	
15	FINAL EXAMINATION.		