

CM 3160 – Commercial & Heavy Construction Methods Fall 2009

Prerequisite: CM 2000

Classroom: J 264

Class periods: Tuesday/Thursday 7:00 PM till 8:50 PM

Instructor: Paul Craig Thompson

Office Hours: By Appointment Only

Telephone: 770 329 6439

Email: pthomps@spu.edu

Required Text: *Building Construction: Principles, Materials, Systems*; Mehta, Scarborough, Armpriest

Course Description: A study of the materials, techniques, and methods used in non-residential construction. Site setup, earthwork, foundations, structural frames, building envelope, interior finishes and specialties are included. Special attention is given to installation techniques, planning work in the field, integration of building systems, and specialty trades.

Course Goals & Objectives: Gain an understanding that commercial construction is the combined effort of designers, project managers, fabricators, and construction personnel to build large structures which typically utilize heavy equipment. The process must be done within a predetermined length of time by using the best possible combination of materials and construction methods, meeting all relevant building code and environmental concerns, and maintaining budgets.

Primary objective will be to become conversant with the basic materials and processes used to build large projects. Special emphasis will be placed on terminology and vocabulary, quality standards, sequencing of work, and production efficiency. Also, students will develop skills in using construction equipment operational data to plan construction operations.

Learning Outcomes:

- Ability to *recognize and describe* the materials used to construct commercial buildings and similar structures.
- Ability to *define* where and how basic materials are used in commercial buildings and similar structures.
- Ability to *sequence and estimate time* for construction activities in a commercial construction project

Grading Policy

Homework	10%
Four Quizzes – 15% each	60%
Class Participation	5%
Group Projects	25%
Total	100%

There will be no curve. 90% and above will be an A, 80% to 89% will be a B, 70% to 79% will be a C, 60% to 69% will be a D, and anything below 60% will be an F. The only adjustment that will be considered is if you are in attendance at least 80% of the time, that means 25 class sessions, a 1% increase will be added to the final grade, which may affect the final score. Also, there will be no final exam, so you can ignore the Banner Web schedule of final exams.

Class Policies

1. Students are expected to attend all lectures as well as laboratory sessions.
2. You must be on time; attendance will be taken first thing in the class session. In other words, Atlanta traffic is no excuse – everyone knows how bad it is...plan accordingly. If you must be absent from class for any reason, you are expected to give the instructor prior notification by email.
3. It is expected that all reading assignments will be completed before class.
4. Homework and laboratory assignments will be provided for most classes; the group projects will require work in teams. Team members must participate in all portions of the assignment, including the presentation.
5. Assignments should be completed during the laboratory portion of the class, and must be turned in at the **beginning** of the class on the due date. Late assignments will not be accepted, except in the direst of situations, subject to the instructor's discretion. If you have to miss a class, email the assignment to me before the beginning of the class.
6. Make up quizzes will only be given with prior notice of absence, to the instructor. I'll give you plenty of notice of quiz dates – plan accordingly.
7. Plan ahead to meet deadlines. Consider your work to be similar to a bid submission. If your bid is late, it goes unopened, and you don't get the project. Plan accordingly. Remember Murphy's Law. I'm not responsible for your broken down car, or your computer that crashes, or Atlanta traffic, or the library fines you owe so that you can't use the computers.
8. Cell phones – shut them off before class begins. That doesn't mean vibrate or silent – shut them off. (Not applicable during lab time, when you're working on projects or assignments.)
9. Collaboration or cheating on examinations will result in a grade of zero and other penalties including possible failure of the course.

Course Outline

CM 3160

Date

Aug 25	Introduction	
Aug 27	Building Conceptions/Permitting	Chapter 1
Sep 1	Building Codes	Chapter 2
Sep 3	Soils, Foundations, Basements	Chapter 21
Sep 8	Concrete	Chapter 18
Sep 10	Concrete Slabs and Reinforcing	Chapter 19
Sep 15	Elevated Concrete Construction	Chapter 20
Sep 17	No class	
Sep 22	Quiz 1 – Codes, Permits, Soils, Foundations, Concrete	
Sep 24	Masonry materials	Chapter 22/23
Sep 29	Bearing Walls, masonry and concrete	Chapter 24
Oct 1	Steel, steel construction	Chapter 16
Oct 6	Light gauge steel construction	Chapter 17
Oct 8	Quiz 2 – Masonry, Bearing walls, Steel	
Oct 13	Exterior Walls	Chapter 26
Oct 15	Exterior Walls	Chapter 27
Oct 20	Roofing – Low slope roofs	Chapter 31
Oct 22	Roofing – Steep roofs	Chapter 32
Oct 27	Glass	Chapter 28
Oct 29	Doors and windows	Chapter 29
Nov 3	Quiz 3 – Exterior Walls, Roofing, Glass	
Nov 5	Moisture Control	Chapter 25
Nov 10	Stair Construction	Chapter 33
Nov 12	Floor coverings	Chapter 34
Nov 17	Ceilings	Chapter 35
Nov 19	Construction Equipment Overview	
Nov 24	Cranes	
Nov 26	Thanksgiving Holiday – no class	
Dec 1	Earth moving Equipment	
Dec 3	Project Presentations	
Dec 8	Project Presentations	
Dec 10	Quiz 4 - Moisture, Interiors, Construction Equipment	

Note – this is a guide only, and is subject to change at the discretion of the instructor.

CELL PHONE and PERSONAL DEVICE POLICY

The use of cell phones/PDAs/pagers during class will not be tolerated. Turn them OFF before entering class and they are to remain off until the class is completed. The classroom environment will be treated the same way as if this was a corporate meeting in a large conference room in which your boss was delivering a presentation. He/she would not tolerate their use and a “wise” young employee would probably shy away from their use in order to prevent their discharge from the firm as a result of their rudeness.

Use of cell phone/PDA/Pager/blackberry etc. during class will result in the dismissal of the student from that particular class and the receipt of a “zero” for that class’s particular assignment, exercise, exam, quiz, etc. The second use of the device during class will result in the withdrawal of the student from the class by the instructor. Withdrawal of the student by the instructor after the official “drop date” will result in the grade of a “WF” for the student.