

CM 4560 Construction Project Management – Fall 2009

Construction Course Title: Development Process I (3– 0 – 3)

Prerequisite: CM 3160

Classroom: H-321

Class Periods: Monday & Wednesday 2:00 to 3:15 pm

Instructor: Mr. John Hicks

Office: Room #H346

Office Hours: Monday, Tuesday, Wednesday and Thursday - as posted

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Catalog Description:

The course is a study of delivery methods, the management of field operations and administration of the construction contract. Contract documents, project organization, supervision, working with owners and design professionals, control of cash flow, procurement, management of subcontractors, job records, contract changes and payment procedures are also discussed.

Course Structure/Approach:

This is a lecture class that strongly encourages class participation. In addition to lectures, students will be required to participate in several discussions on case studies that will be presented by the instructor. Students will also be required to complete a Team Project to be turned in at the end of the semester. Students will be divided up into groups of three - four by the instructor and each group will be required to make a brief 15-20 minute oral presentation to the rest of the class at the end of the semester in addition to turning in one bound written copy of their Team Project (see below for further details on Team Project).

Course Objectives:

Construction Project Management refers to the process of managing a team of design and construction professionals for the purpose of delivering construction services to a client (the Owner). The competent Construction Project Manager must perform this service so as to deliver the project within the budget and schedule constraints set forth at the start of the project while maintaining the prescribed level of quality defined for the project. This course is therefore designed to give an understanding of the underlying principles that govern this process, as well as provide an overview of some of the key tools used by construction professionals in carrying out their responsibilities in the management process.

Targeted Learning Outcomes:

The targeted learning outcomes are as follows:

1. Demonstrate ability to differentiate, analyze and make recommendations between Construction Management, Design Build and traditional General Contracting (Lump Sum, GMP and Cost Plus) delivery methods.
2. Demonstrate ability to prepare Project Meeting Minutes, Transmittals, Submittal packages and logs, RFI's and associated log, Procurement logs, Safety and Accident logs, miscellaneous formal letters, Daily Reports, and Monthly Reports with respect to maintaining proper written project documentation.
3. Demonstrate a working knowledge of the different components of a typical set of Construction (Contract) Documents.
4. Acquire an understanding of the primary issues associated with proper layout of a jobsite, management and control of jobsite labor, safety and quality control.
5. Demonstrate a working knowledge of the main components of a typical subcontract agreement, as well as an understanding on how to properly manage subcontractors and their vendors.
6. Demonstrate ability to review a basic project schedule along with an understanding of time related issues that affect cost and ultimately, budget.
7. Demonstrate ability to prepare change orders and progress payments using standard AIA forms.
8. Demonstrate a working knowledge of the project closeout process along with processing the final payment from the Owner and subsequent close out of all subcontractor contracts.

Lectures and Assigned Readings:

Lectures will be taken largely from assigned readings and supplemented by outside sources and the instructor's professional experience in the real estate development industry. The course will cover a lot of topics and even though the instructor will endeavor to cover the material as thoroughly as possible in the lectures. However, the student can greatly enhance their learning experience by reading the assigned readings in advance of the scheduled lecture on that topic.

Text and other Class Materials:

Required:

Mincks, William R. and Johnston, Hal. Construction Jobsite Management. Second Edition. Delmar Learning, 2004

Supplemental:

Levy, Sidney M. Project Management in Construction. Fifth Edition. McGraw Hill Publishing, 2007

Grading Policy:

Exams: There will be three exams and one "final exam". Tests and exams will be primarily objective in format consisting of fill in the blank, true/false and multiple choice answer questions. Short answer "essay type" questions will also be included that will be more subjective in their correctness. The final exam will be held on the date indicated by the University in its schedule of final exams. The weighting of the exam scores will be as outlined below in the Final

Grade Calculation section below. Students who are not present during a scheduled exam will receive a grade of zero for that exam. Only under extenuating circumstances will students be allowed to make up an exam. In situations where the student knows in advance that he/she cannot be present on the date of an exam the student is expected to make prior arrangements with the instructor in order to be considered for a make up. Last minute absences on the date of an exam will only be excused in the event of a valid medical or family emergency. All requests for an “excused” medical and/or family emergency must be accompanied by written justification of the absence from a third party provider. All make up exams will be closed book and closed notes.

Classroom Participation, Attendance and Quizzes: As noted above, students are expected to attend and participate actively in every class. While the decision to attend class is left to the student’s discretion, class attendance and participation will impact the student’s final grade. Roll will be taken for every class. *Any student who misses more than three (3) classes without having a documented medical or family emergency excuse for each absence will have their Classroom Participation grade reduced by two letter grades.* In short, any student that misses more than three (3) classes can expect at best a letter grade of “C” for Classroom Participation. The instructor reserves the right to utilize “pop quizzes” should he feel it necessary to encourage class participation and attendance. A student’s score on any quizzes will be used as a factor in determining their final Classroom Participation grade. If a student is absence on the date that a quiz is given, the student will be given a zero for that quiz. There will be no make ups for quizzes.

Out of class assignments (homework): Out of class assignments are due on the date indicated in the Schedule of Lecture Topics and Assignments below. *Failure to turn in an assignment on its due date will result in the loss of one letter grade. Failure to turn in an assignment by the end of the next class date after its initial due date will result in a score of zero for that assignment.* As a means to encourage attendance, no assignments will be accepted electronically unless otherwise noted by the instructor. All out of class assignments must be typed and include the following information at the top of the first page:

Student Name: John Doe

Class: CM 4560

Date: August 26, 2009

Assignment Description (ie. Construction Jobsite Management, Chapter One Review Questions 1, 2, 3 and 5)

Team Project: During the first class meeting, students will be grouped into teams of three (3) students per team. Each team will be expected to produce a Project Report covering the topics outlined below for a single existing, past or current large commercial project from the Southeastern United States. As noted in the Schedule of Lecture Topics and Assignments, there will be two (2) designated class periods that each group’s progress will be reviewed by the instructor. It is imperative that at least two (2) team members from each group are present during these designated class periods to meet with the instructor to review the group’s overall progress at that point in time. Each group will be expected to turn in a bound, typed report at the end of

the semester as well as make a brief 20-30 minute Microsoft “Power point” type presentation to the class outlining their findings. Please note that as with all “group” projects, all members of the team will have to live with the team grade regardless of anyone’s opinion of the relative contribution of the individual team members.

Project Report (Minimum) Requirements:

Each group shall address the following issues as part of their report:

- a. Project Description to include the following information:
 1. Project Name and Location
 2. Owner
 3. Architect/Engineer
 4. Contractor
 5. Public or private sector
 6. Type of project (if building – SF, floors, etc., if underground utilities – type & quantity, etc.)
 7. Award method (hard bid, negotiated, etc.)
 8. Initial Contract Amount and total change orders to date
- b. Discuss Project Schedule including the following topics:
 1. Initial start date, finish date, major milestones
 2. Current (or actual) finish date, major milestones
 3. What issues affected the schedule?
- c. Discuss Project Contract including the following topics:
 1. Provide summary initial Contract Amount along with a breakdown of the Schedule of Values
 2. Review Owner – GC Contract if possible
 3. Contract Allowances – amounts and why were they used in contract?
 4. Change Orders to date – summarize major changes and impacts on schedule
 5. Did the Project ultimately meet the Owner’s requirements? Contractor’s targeted profit objectives?
- d. Discuss Project procurement including the following topics:
 1. Attach copy of Submittal Log
 2. How did the Contractor perform relative to what was originally targeted for submittal dates? Were there any items of critical importance that perhaps the Contractor should have jumped on earlier so as to not impact the Project schedule?
 3. How did the Architect/Engineer perform regarding turnaround time for their reviews?
 4. Did the submittal review process raise a lot of design issues that ultimately impacted cost and schedule? If so, how did the team handle appear to handle these issues?
- e. Discuss Project Contract Documents including the following topics:
 1. Review the Project drawings. Were the documents 100% complete at the time of contract award? If not, what percentage were they? Does the Contractor’s opinion regarding percentage complete mesh with that of the Architect?

2. Attach copy of RFI log. How many were they? Does the Contractor feel that this is “about right” for a project of this type? If not, why not? What does this tell you about the percentage complete for the drawings?
 3. Categorize RFI’s by assigning responsibility for its answer to either Owner, Architect or sub-consultant. What conclusions can be drawn from this exercise?
 4. Review Project specifications and RFIs. Are there any conclusions that you can draw from looking at specs and RFIs related to unnecessary inconsistencies that lead to unneeded confusion?
- f. Discuss the subcontracting process including the following topics:
1. Review a typical subcontract agreement if possible. In what ways is it different from the Owner- GC contract?
 2. Provide a listing of the major subcontractors/vendors for the project.
 3. What criteria were used by the GC to determine the final set of subcontractors?
 4. Discuss any issues related to subcontractors that played a major role in the completion of the project. How did they impact time and cost?
- g. Discuss the following topics as part of your overall summary of the project:
1. Interview the Architect if possible. From their perspective what were the major issues that they had to deal with? What “lessons learned” did they take away from their involvement with the project?
 2. Interview the Owner or their assigned representative if possible. From their perspective what were the major issues that they had to deal with? What “lessons learned” did they take away from their involvement with the project?
 3. Interview the Contractor if possible. From their perspective what were the major issues that they had to deal with? What “lessons learned” did they take away from their involvement with the project?
 4. In your opinion, were the right delivery/contracting method used for this project? If so, why? If not, why not? Your answer should address the “pros and cons” for using another delivery method as they relate to this particular project.

Final Grade Calculation:

1. Exams: 45% - Exams One, Two and Three 10% apiece and Final 15%
2. Classroom Participation: 10%
3. Out of Class Assignments: 10%
4. Team Project: 25%

There will be no curve for the final grade, only straight averages. The minimum cutoff for an A is 89.5% and above; for a B is 79.5% and above; for a C is 69.5% and above; and for a D is 59.5% and above. Anything below 59.5% is considered an F. The instructor reserves the right to lower these cutoff values depending on specific circumstances surrounding the overall performance of the class.

Schedule of Lecture Topics and Assignments

Class	Date	Subject of Lecture/Lab	Assignments Due	Reference(s) & Text
1	24 Aug 09	Class Administration Introductions Team Formation & Project Report		
2	26 Aug 09	Introduction to Project Management	Student Acknowledgement	Mincks – Chapter 1
3	31 Aug 09	The Project Team – Roles, Responsibilities and Authority	Mincks – Chapter 1 Questions 3 & 4	Mincks – Chapter 2
4	2 Sept 09	The Project Team – Project Delivery Systems		Mincks – Chapter 2
5	7 Sept 09	Labor Day Holiday		
6	9 Sept 09	Construction Documents	Mincks – Chapter 2 Questions 1, 2, 3 & 6 Project: Confirmation of assigned project	Mincks – Chapter 3
7	14 Sept 09	Submittals, Samples & Shop Drawings	Mincks – Chapter 3 Questions 2,3,4,5,6,7 & 8	Mincks – Chapter 4
8	16 Sept 09	Documentation & Record Keeping – Jobsite Level	Mincks – Chapter 4 Questions 1,2,3,5,6,8 & 10	Mincks – Chapter 5
9	21 Sept 09	Documentation & Record Keeping – Office Level		Mincks – Chapter 5
10	23 Sep 09	Exam One Review	Mincks – Chapter 5 Questions 1,3,4,5,8,11 & 12	Handout
11	28 Sept 09	Exam One		
12	30 Sept 09	Jobsite Layout & Control – Guest Speaker		Mincks – Chapter 6

13	5 Oct 09	Jobsite Labor Relations & Control Personnel & Safety Management	Mincks – Chapters 6 Questions 1,6 & 8 Project: Assessment I	Mincks – Chapters 8 & 9
14	7 Oct 09	Meetings, Negotiations & Disputes The Construction industry & ethics	Mincks – Chapter 8 Questions 1,5,7,8,10 Mincks – Chapter 9 Questions 1,3 & 4	Mincks – Chapter 7 Handout or web link
15	12 Oct 09	Subcontracting Agreements	Mincks – Chapter 7 Questions 3,6,7, 10	Mincks – Chapter 10
16	14 Oct 09	Subcontractor Management – Guest Speaker		Mincks – Chapter 10
17	19 Oct 09	Project Quality Control	Mincks – Chapter 10 Questions 2,5,7 & 8	Mincks – Chapter 11
18	21 Oct 09	Exam Two Review	Mincks – Chapter 11 Questions 2,7 & 10	Handout
19	26 Oct 09	Exam Two		
20	28 Oct 09	Time and Cost Control		Mincks – Chapter 12
21	2 Nov 09	Computerized Project Management	Mincks – Chapter 12 Questions 2,3 & 4	Mincks – Chapter 13
22	4 Nov 09	Changes & Claims	Mincks – Chapter 13 Questions 1,5,8, 10 Project: Assessment II	Mincks – Chapter 14
23	9 Nov 09	Progress Payments	Mincks – Chapter 14 Questions 1,3,7 & 8	Mincks – Chapter 15
24	11 Nov 09	Project Closeout	Mincks – Chapter 15 Questions 1,2,4 & 6	Mincks – Chapter 16
25	16 Nov 09	Special Topics & Lessons Learned	Mincks – Chapter 16 Questions 1,2,3 & 4	Handout
26	18 Nov 09	Exam Three Review		Handout
27	23 Nov 09	Exam Three		
28	30 Nov 09	Project Presentations – Teams 1, 2 & 3	Project Report	
29	2 Dec 09	Project Presentations – Teams 4 & 5	Project Report	
30	7 Dec 09	Project Presentations – Teams 6 & 7	Project Report	
31	9 Dec 09	Final Exam Review		Handout

32	TBD	Final Exam		
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NOTE: *This syllabus is intended to represent the general format of the class. The instructor may make changes if it is determined that such changes will better suit the needs of the students.*

Additional Policies:

Students with Disabilities:

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the counselor working with disabilities at (678) 915-7226 as soon as possible to better ensure that such accommodations are implemented in a timely fashion.

Plagiarism:

It is assumed that by this time in the student's matriculation, he/she is well-versed with what constitutes plagiarism. Proper citation of references is required for this and all your coursework in the CNST program. Failure to comply with this requirement may result in disciplinary action.

Communications:

Students are strongly advised to check their *spsu.edu* email account on a daily basis throughout the semester as this will be the primary means outside of class in which the instructor will communicate with each student. In the “real world” good communications are essential and employees are expected to check their email accounts on a regular basis as this is the primary means by which all major private and public entities use to communicate with their associates. *Failure to check one’s email account that results in a missed assignment will not be considered a valid excuse to have missed an assignment.*

Cell Phones/PDAs:

The use of cell phones/PDAs during class will not be tolerated. 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. Students should turn OFF their cell phones/PDAs at the start of the class and leave them in that position until the conclusion of the class. The first use of a cell phone during 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.

Laptop Computers:

The use of laptop computers during the classroom period will be allowed so long as the student is using the laptop to research material related to the class. *The instructor does however, reserve the right to designate certain periods of time that all laptops must be closed and turned to the “off” position.* Examples of those time periods will be the administering any exams, quizzes, etc., whenever a guest speaker is conducting the class (see below for more policies related to guest speakers) and any other time at the instructor’s sole discretion that he feels that it is not appropriate nor conducive to the overall learning experience.

Guest Speakers:

It is the intent of the instructor to line up 2-3 guest speakers throughout the semester to share their “real world” knowledge of certain topics. The instructor will endeavor to announce the upcoming guest speaker at least 4 class periods in advance of their presentation. Attendance at these presentations is strongly encouraged. Students need to remember that these speakers are taking time out of their personal/professional lives to spend an hour and a half with us. In short, they are doing us, the CNST program and university a tremendous favor. We need to show them that we appreciate their efforts and time. Students need to pay attention during these presentations and feel free to ask as many questions as they feel appropriate. “No question is a stupid question”. The instructor has been in charge of several hundred million dollar commercial projects during his career and has found that if something is unclear to one person.....*it is probably unclear to several other people also.*

STUDENT ACKNOWLEDGEMENT

I, _____, have read the Syllabus for **CM 4560** and fully understand the class requirements as well as the grading policy.

Signed: _____

Name: _____

Date: _____