

CE 506 Heavy Construction Estimating

FALL SEMESTER 2007 COURSE SYLLABUS and CLASS SCHEDULE

Syllabus

CLASS INFORMATION:

Room: Olin Hall 100 D

Meeting Time: Thursday 6:30-9:10 pm

INSTRUCTOR INFORMATION:

Instructor: Tom Foss

E-mail: tfoss@griffithcompany.net

Phone: (562) 929-1128

MATERIALS: The "Greenbook" (purchased in class)
Students are required to purchase bid documents for sample project to cover reproduction costs.
All other materials will be provided.

COURSE DESCRIPTION: The utilization of construction estimating methodologies and techniques as specifically applied to heavy construction projects.

COURSE OBJECTIVES:

1. To familiarize the student with various methods of heavy construction.
2. To reinforce the students' understanding of indirect costs relative to heavy construction contracting.
3. To ultimately allow the student to produce a comprehensive, detailed unit price estimate in accordance to a heavy construction project solicitation.

GRADING POLICY:

GRADE		SCALE	
A	90 – 100%	Mid-Term Exam	15%
B	80 – 89%	Quizzes	20%
C	70 – 79%	Homework	25%
D	60 – 69%	Team Project: (Final)	30%
F	Below 60%	Attendance/Participation	10%
			100%

READING ASSIGNMENTS: Reading Assignments will be given in class to be covered in the next lecture. Students should be prepared to discuss the assigned information in class; this will be a major portion of the class participation percentage of the overall grade.

HOMEWORK: Homework assignments will be given each week to reinforce the information presented in the reading assignment(s). Homework will be due at the beginning of the required class period; late assignments will be reduced by 5% for each class period they are late.

TEAM PROJECT: An actual heavy construction project will form the basis for the final project that will be due on the last day of class. Students will work in teams to produce and submit a detailed cost estimate for the specified project, to include all required backup for the unit prices submitted.

FIELD TRIPS: Several during the semester. Recommended, but optional.

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Class Schedule

Session	Date	Topic Title	Reading Assignment	Homework	Exams
1	08/30/07	Class Introduction / General Overview / Direct Cost Pricing	Greenbook Sections 1–4		
2	09/06/07	Labor and Equipment Costs	Greenbook Sections 5–9		
3	09/13/07	Overhead and Indirect Costs Contract Documents and Specifications	Spec. Book Sections A–C	Labor Rates	Quiz
4	09/20/07	Quantity Takeoff / Bid Strategy	Spec. Book Sections D–E	Equipment Rates	
5	09/27/07	Demolition / Clearing	Greenbook 300-1 – 300-11.4		Test
6	10/04/07	Load and Haul / Grading	Greenbook 300-1 – 300-11.4		
7	10/11/07	Grading / Mass Diagrams	Spec. Book Exhibit E	Take-off	
8	10/18/07	Underground / Minor Structures	Greenbook 306-1 – 306-8.5	X-Section	
9	10/25/07	Fine grade and Pave	Greenbook 301-1 – 302-5.9	Take-off	Quiz
10	11/01/07	Flat Concrete Operations	Greenbook 303-5 – 303-7.4	Take-off	
11	11/08/07	Retaining Walls	Greenbook 303-1 – 303-1.11	Take-off	
12	11/15/07	Retaining Walls / Bridge Construction	Spec. Book Section F	Take-off	Quiz
	11/22/07	NO CLASS			
13	11/29/07	Bridge Construction		Take-off	
14	12/06/07	Final Preparation, Study Day (Optional)	Review		
15	12/13/07	Bid Opening; Final Exam			Final