## CIV358: PROJECT MANAGEMENT FALL 2008

**Instructor:** C.J. Riley (you may call me C.J.)

Office: Owens 113

Office Hours: Mondays and Wednesdays from 1pm to 3pm and Tuesdays from 10am to 11am, or

when my door is open, or by appointment

**Phone:** 885-1922

Email: charles.riley@oit.edu

Website: Blackboard CE will be used

Class: Mondays, Wednesdays, and Fridays from 11:00 to 11:50 am in Owens 212

Lecture hours will be used to cover textbook readings and discuss other assigned readings. You should arrive in class having completed the reading assigned for that day (see attached schedule) ready to participate in discussion.

Lab: Tuesdays from 3:00 to 5:50 pm in Boivin Hall 134

Lab time will include instruction in scheduling techniques. It will also be a time for you to work with Microsoft Project on your own or in teams to complete the lab assignments and final project.

**Prerequisites:** IMGT345 and MATH361 OR with instructor approval.

**Text:** Construction Project Administration, 8<sup>th</sup> Edition (2006), Edward R. Fisk and Wayne D. Reynolds

## **Course Description:**

Project management as it pertains to civil engineering is the handling of planning, scheduling, and delivery of a construction project. It requires an understanding of a wide range of roles and relationships. Given that a civil engineering graduate may end up in any one of these roles, from owner to designer to contractor, it is imperative that he or she understand these roles and the contractual obligations required of each. Students in this class will explore the various relational aspects of project management including organizational structures, contracts, responsibility, liability, documentation, specifications, policy and law, and claims and disputes. Special attention will be paid to using Microsoft Project for project scheduling and review. The course will consider public and private construction projects in the building and transportation arenas. It will introduce students to the U.S. Green Building Council's LEED design criteria and their impact on project administration.

## **Objectives:**

- Describe the key elements of a construction project delivery system.
- Appraise construction project documentation and evaluate compliance with the body of law related to construction contracting
- Understand and use the critical path method (CPM), Gantt charts, and PERT to facilitate scheduling both manually and electronically.
- Understand planning methodologies other than CPM and why they might be used.
- Obtain a working understanding of Microsoft Project for deterministic time and resource scheduling.
- Explain project management, business, public policy, and leadership as they pertain to civil engineering.

• Have a basic knowledge of the USGBC LEED design criteria and how to manage projects that include LEED specifications.

**Grading:** This may vary depending on the success of the class in general, but you can calculate your grade by compiling simple weighted averages of your work:

- A: 90-100%
- B: 80-90%
- C: 70-80%
- D: 60-70%
- F: < 60%

Actual grades will be made available upon request as the course progresses. The weighting of assigned work is as follows:

- Homework: 20%
- Lab assignments: 25%
- Final Project: 30%
- Exams: 20%
- Discussion Participation: 5%

**Homework:** Answer the odd numbered questions in the textbook for the reading assignments and lectures of the previous week. You will either submit this through Blackboard CE or by email. In any case, it will remain electronic. Unless otherwise stated in class or by email, the week's assignment is due every Monday at midnight.

Lab Assignments: These will consist primarily of Excel and MS Project based assignments.

**Exams:** One midterm and one final will cover the content of the readings with some treatment of lab material.

**Final Project:** Working in groups of two or three, you will be asked to contact the appropriate firms that worked on a construction project of your choice (but with approval by me) in order to determine the project delivery method, bid procedure, firms involved and their relationships, content of contract documents and change orders, scheduling methods, quality control, and any other information pertinent to the management of the project. More detailed instructions will be forthcoming.

## **Comments:**

- Any problems with software used for this class should be addressed to me so that I may contact ITS to have them resolved. Do not contact ITS directly unless the problem you have is personal in nature or you need help immediately.
- Cell phones please set them to vibrate in class, don't look at them, and don't text during class. If everyone's cell phone vibrates at the same time then there's an emergency on campus and we probably should look at our phones.
- Academic honesty the university policy on this (effectively a two-strike policy) is very serious. Don't make the mistake of violating it.