

**FLORIDA INTERNATIONAL UNIVERSITY
COLLEGE OF ENGINEERING AND COMPUTING
DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING**

**CCE 5036 – Advanced Project Planning for Civil Engineers, Fall 2011
Course Policies and Procedures**

INSTRUCTOR: Caesar Abi Shdid, Ph.D, P.E.
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MEETING PERIODS: Online

OFFICE HOURS:* Virtual Online
OR by appointment.

* Office hours terminate on the last day of regular classes, i.e., no office hours are maintained during and after the final exams period.

PREREQUISITE: CCE 4031. Students not having the required passing grade in the prerequisite course(s) should drop out during the drop-and-add period. Violators will be dropped out automatically later on during the semester. This may result in their loss of course tuition.

COURSE WEBSITE: <https://online.fiu.edu>

DESCRIPTION: Advanced techniques and methods for planning activities, operations, finance, budget, workforce, quality, safety. Utilize case studies as learning tools for students aspiring to management positions.

METHOD: Online video delivery.

OBJECTIVES: To learn the use and application of advanced tools to the planning, monitoring, and control of commercial, industrial, and heavy construction projects. Students taking this course will already have a comprehensive understanding of the fundamentals of planning, monitoring and controlling a construction project using CPM (Critical Path Method) and its related techniques. This course builds upon this basic knowledge, developing expertise in dealing with problems such as uncertainty in the performance of resources, modeling repetitive construction work, and simulating construction processes. The course will provide students with the understanding of the tools and methods necessary to be leading construction managers in the new century.

REQUIRED TEXTS: Advanced Project Planning for Civil Engineers, by Caesar Abishdid. ISBN 0558274188. Person Construction Technology, 2009.

SOFTWARE: None

SUPPLIES: None.

REFERENCES: Construction Planning and Scheduling Manual, 2nd ed. Copyright 2004, Associated General Contractors AGC.

Construction Planning Equipment and Methods, by Robert L Peurifoy and Clifford J. Schexnayder, 7th Ed. ISBN 0072964200. McGraw-Hill, 2006.

<u>GRADING SYSTEM:</u>	Mid Term	30%
	Final Exam	30%
	Homework	<u>40%</u>
	Total	100%

Note: Final Exam is mandatory and is not cumulative and will be administered on the final exam date. NO make-ups or incompletes will be given regardless the situation.

No extra-credit projects, homework, or any other form of extra-credit work will be permitted at the end of the semester regardless of the final grade. Students' final grade is not negotiable. If a student wants to inquire about the final grade, the inquiry shall be in a formal written letter to the instructor within one week of the final grades being posted. The Instructor's reply to the inquiry is final and any additional attempts to negotiate the grade will result in the Instructor dropping the grade to the next lower letter grade.

All homework and Exam grades will be posted on Blackboard. Erroneous grades on Blackboard need to be reported within 2 weeks of posting. No grade changes will be made after this period. Course grades will be computed according to the following scale:

A=90-100; B⁺=87-89.9; B=80-86.9; C⁺=77-79.9; C=70-76.9; D=60-69.9; F<60.

Final class grades (NOT individual exams) will be curved so that the final class average is 70%.

QUIZZES: Pop Quizzes are not prescheduled and will be given during class time without any previous notice.

EXAMS: Exams are designed to encourage critical thinking. Exams will be a combination of questions, multiple choice, true or false, fill-in-the-blanks, and problems. NO makeup exams will be administered regardless. Students arriving late to an exam will NOT receive any time extension. All online students residing in the tri-county area of South Florida have to sit for all exams in-person at the FIU campus. Online students residing outside the tri-county area of South Florida need to make arrangements with the instructor to take the exam at a remote location. In such a case, the student is responsible for arranging for a proctor. Exams will be graded and returned electronically to all students through Blackboard.

HOMEWORK: Assigned homework shall be submitted on Blackboard in pdf format. Homework due dates will be posted on Blackboard. **No late homework will be accepted regardless.** All sketches should be neatly drawn and answers underlined. Homework may be graded by detailed

checking or based on overall attempt. Sloppy, disorganized, and poorly done homework will not be graded. **Zeros will be given to homework not done according to the above-stated criteria.** The homework grade will be computed according to these policies. **Copying of homework is strictly forbidden, students doing so will be given a grade of F on the class.** No homework resubmission will be allowed under any circumstances. Homework will be graded and returned electronically to all students through Blackboard.

Professional engineers communicate ideas through their design calculations and construction documents. Many times final engineering calculations, drawings and specs are submitted to clients as a part of the construction permitting and bidding processes. These calculations are a reflection of your competency as an engineer and on the quality of the product that your company produces. Part of your engineering training includes learning how to prepare engineering calculations and documents neatly and in the proper format. In CCE 5036, the homework policy is designed so as to capture as much as possible this spirit of professionalism sought after by the Engineering profession. Through this policy this course emphasizes the importance of training students to acquire the skills and habits necessary for presenting a finished product that exhibits the highest of professional format and reflects their abilities.

ATTENDANCE: **ATTENDANCE IS REQUIRED FOR ALL EXAMS.**

STUDENT RESPONSIBILITIES:

1. View all lectures and turn in homework when due.
2. Be aware of all the announcements or changes made by the instructor for this course.
3. Check the course website **at least once per day.**
4. Read the text assignments.
5. Use office hours whenever possible for assistance and advisement.
6. Work extra problems to understand each topic. Seek timely help if you are not making satisfactory progress.
7. Be honest in all homework, quizzes and tests. Be aware of the Honor System of Florida International University.
8. Be disciplined, responsible and professional with respect to conduct and presentation.

ACADEMIC HONESTY: **Academic dishonesty is defined in the current edition of the Student Conduct Code. Students violating the Academic Dishonesty Policy as stated in the current Student Conduct Code will be penalized the maximum allowed by the University. The student will also be immediately dismissed from this course and will receive a final grade of "F". All course assignments are individual assignments, unless otherwise stated by the instructor. This applies to all term papers, homework, projects, exams and any other assignments**

to be graded. No student shall receive, offer or give assistance not authorized by the professor in the preparation of any assignment.

ACADEMIC MISCONDUCT:

"Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook."

STUDENTS WITH DISABILITIES:

Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must provide this documentation to the Instructor at the beginning of the semester when requesting accommodation.

FIELD ACTIVITIES:

University policy requires each student to complete a waiver of liability form as provided by the professor, prior to participating in university sanctioned activities off campus. Completed forms must be in the custody of the professor prior to the onset of any off-campus field trip.

RELATIONSHIP OF COURSE TO PROGRAM OBJECTIVES:

This course accomplishes, to various extents, the following ABET-related objectives and outcomes:

Objective 1 - Technical Proficiency: Our graduates will have ability to:

- 3a. Apply knowledge of mathematics, science, and engineering to solve civil engineering problems;
- 3c. Design a system, component, or process to meet desired needs related to at least four of the technical areas encompassed by civil engineering;
- 3e. Identify, formulate, and solve civil engineering problems;
- 3k. Utilize the techniques, skills, and modern scientific and engineering tools necessary for civil engineering practice.

Objective 2 - Communication: Our graduates will have an acceptable level of proficiency in:

- 3d. Working with others as part of multi-disciplinary teams;
- 3g. Written, oral, and graphical communication.

Objective 3 – Responsible Citizenship: Our graduates will have an acceptable level of appreciation for and understanding of:

- 3h. The impact of engineering solutions in a global and societal context;
- 3j. Contemporary issues facing society as a whole.

The outcome identifiers, herein used (e.g., “3h”), correspond to the same calling system that is used in the ABET Criteria for Accrediting Engineering Programs (www.abet.org).

FALL 2011 COURSE OUTLINE:

SUBJECT AND COVERAGE*

1. Course Introduction and Syllabus
2. Review of Deterministic Critical Path Method
3. Introduction to Stochastic Scheduling
4. Modeling Uncertainty
5. PERT (Program Evaluation and Review Technique)
6. Monte-Carlo Based CPM
- 7. Midterm Exam**
8. Construction Simulation
9. Repetitive Construction
10. Advanced Resource Management
11. Sequencing Construction Activities
12. Project Risk Analysis
13. Introduction to International Construction Management.
- 14. Final Exam**

*One or more subjects, or part of a subject can be covered in a particular lecture video.