

Southern Polytechnic State University
Course Syllabus
CM 3000
Computer Applications in Construction: 3 credits
Course Syllabus
Fall 2009

Prerequisite: None

Classroom: H324

Class Periods: M, W @ 12:30pm – 2:50pm

Required Text: None

Other References:

- A Guide to Microsoft Office XP Professional – Lawrenceville Press 2002
- SureTrak Reference Guide 2006 by Javier Irizarry, Ph.D.
- Handouts provided (in hard copy or in the Course Management System (CMS))

Grading Policy

Lab exercises*	70 %
Quizzes	20 %
Participation	10 %
Total:	100 %

*If homework were to be given, the points earned would become part of the Laboratory grade.

The minimum cutoff for an A is 90%; for a B is 80%; for a C is 70%; and for a D is 60%. Anything below 60% is considered an F. There will be no curve on this course only straight average.** The minimum cutoff for an A is 90%; for a B is 80%; for a C is 70%; and for a D is 60%. Anything below 60% is considered an F.

**The only grade adjustment possible will be the following: If a student is on the border of a grade (59, 69, 79, 89), the class attendance record will be used to award a 1% increase to the final grade. To earn this 1% increase, students must be present at least 75% of the meeting during the semester.

Instructor: Dr. Pavan Meadati
Office: H-338
Office Hours: Monday 11:00am to 12:00noon
Wednesday 11:00am to 12:00noon
(Other times available by appointment)
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CM 3000 Course Outline

Week	Week of	Related Construction Management Function	Topics	Activities	Programs Used
1	Aug 24 & 26	Company Organization Pre-Bid Research – Part 1	Administrative Matters, Windows, Other Operating Systems, Web CT Access, and Computer use in Construction, Internet and search tools	Develop companies by selecting members and selecting company names	Windows, Internet Explorer, WebCT Vista, MS Word
2	Aug 31 & Sep 3	Computer Skills	CAD Skills	CAD Assignments.	AutoCAD 2008
3	Sep 7 & 9	Computer Skills	AutoCAD 2008	CAD assignments	AutoCAD 2008
4	Sep 14 & 16	Pre-Bid Research – Part 2	Advanced CAD	Manage complex CAD files	AutoCAD 2008
5	Sep 21 & 23	Estimating, and Cost Control	MS Excel for Estimating and Cost Control, and Work Breakdown Structure Development	Prepare a basic estimate worksheet using the CSI divisions for earthwork and concrete Assuming contract has been awarded prepare the required spreadsheets for cost monitoring and control, introduction to WBS that will also be used in SureTrak	MS Excel and AutoCAD 2008
6	Sep 28 & 30	Contract Management	BIM	Prepare basic building model using Revit	REVIT
7	Oct 5 & 7	Contract Management	BIM	Prepare basic building model using Revit	REVIT
8	Oct 12 & 14		Quiz 1 (Windows, Internet and search tools, Power Point, Word, Excel)		
9	Oct 19 & 21	Contract Management	Primavera Expedition 2 - Lab Exercise	As described for week 7	Primavera Expedition
10	Oct 26 & 28	Contract Management	Primavera Expedition 3 - Lab Exercise	As described for week 7	Primavera Expedition
11	Nov 2 & 4	Scheduling	Scheduling -1 (AON, and CPM) Lab Exercise - AON Lab Exercise - CPM	Basic principles of scheduling are introduced such as forward and backward CPM calculations.	MS Word
12	Nov 9 & 11	Scheduling	SureTrak 1 – Basics Lab Exercise - SureTrak	Basics of the program	SureTrak
13	Nov 16 & 18	Scheduling	SureTrak 2 - Layout and WBS Lab Exercise - SureTrak	Organization of schedule using WBS.	SureTrak
14	Nov 23 & 25		Thanksgiving	Group Assignment Prep. Project Schedule	
15	Nov 30 & Dec 2	Scheduling	SureTrak 3 - Resources and Updates Lab Exercise - SureTrak	Resource loading the schedule and processing of updates.	SureTrak

16	Dec 7 & 9		Quiz 2 (Scheduling, SureTrak, Expedition)		
	Finals Week		NO FINAL EXAM		

Note: The outline is intended to represent the general format of class. The instructor may make changes to better suit the needs of the class.

Catalog Description

An introduction to commercial software used in the construction industry. Students learn to apply software applications relevant to the construction industry such as but not limited to MS Windows environment manipulations, Internet research tools, spreadsheets, word processing, visualization and presentation software, project management applications, and project scheduling software. The course takes place in a structured laboratory setting with practice sessions consisting of examples relevant to the operation of a construction company and project management in general.

Course Learning Outcomes and Relevance to Capstone Project

Upon completion of this course, students will be able to:

- 1) Prepare documents typically used in the construction management field.
- 2) Prepare spreadsheets typically used in the construction management field.
- 3) Prepare and deliver presentations typical in construction practice.
- 4) Prepare basic work schedules typically used in construction practice.
- 5) Prepare drawings using graphics software available in the construction industry.

The concepts learned during this course will help students as they prepare for the Capstone Project at the end of the Construction Curriculum by providing great facility with software that is critical to the successful completion of the project.

1. Students are expected to attend to **ALL lectures** as well as **ALL laboratory** sessions. It is expected that students will arrive to class **on time** and if expected to be absent from class, **prior notification** to the instructor **is required** (e-mails are accepted for this purpose using the CMS). Each student is expected to behave in a professional way and participating in an alert, prepared, and relevant manner. Disruptions to the class environment will not be tolerated.
2. Quizzes are closed book, closed notes, and without computer assistance (no open programs other than the CMS Assessment Tool).
3. Make-up quizzes **WILL NOT BE GIVEN** under any circumstance.
4. Lab exercises must be completed and submitted in the allowed laboratory period unless otherwise indicated. **Laboratory exercises can not be made up for any reason.** Students must be present on the day the lab was assigned in order to receive a score for the lab exercise submitted.
5. The computer equipment provided in the laboratories is for lecture, lab exercise, and assignments only and no personal use is allowed during lecture and laboratory sessions. No inappropriate use of computers will be tolerated. Internet Web sites that are viewed must comply with university policies regarding appropriate content. Students who violate the university policy or class policy may be recommended for dismissal. **FOOD OR DRINKS ARE NOT ALLOWED IN THE LAB UNLESS THE GUIDELINES DISCUSSED IN CLASS ARE FOLLOWED.**
6. Grade revisions for assignments, projects, or any other grade received in the course are **limited to two (2) days after the work has been returned or the grade has been posted on the CMS.**
7. Any request for grade revision must be made in writing (typed and formally written like a business letter) and delivered to the course instructor or to department personnel in person (**no email, no fax**) before the two (2) day deadline. After the two (2) day deadline, students waive their rights for appeals. The request for grade revision must include the name of the student, the lab exercise, assignment or quiz in question, description of the item in question, and the reasons for requesting the revision. Students must present their argument clearly and substantiate with evidence. The course instructor will evaluate the request and take appropriate action.
8. The course instructor reserves the right to make exceptions as he deems appropriate. (if an exception is made for one student this does not mean that the same will be done for others)

9. If you are given the opportunity to make up a quiz, it must be no later than the class period after the one in which the exam took place (no extensions).
10. Deadlines are to be met. In case there is a homework assignment no late work should be presented. If you turn in late work penalties apply (one day after 50% off, 2 days after 100% off). Plan ahead, beware of “Murphy”. (Instructor is not responsible for malfunctioning computers, printers or software, or lost work)

Course Management:

SPSU CMS will be used for managing this course. All communications (email) will be done using this system. Some course material will be available in the system as well as all grades for all work related to this course. Electronic communication by any other means will not be accepted. Allow **24 hrs** for a reply to your e-mail message (in some cases I will respond before, but this is not guaranteed). **E-mails that are received after 1:00pm on Fridays will be answered on the following Monday.**

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.

Laptop Computers: The use of laptop computers during the classroom period will be allowed as long as the student is using the laptop to take the notes. No facebook, web surfing, IM, or E-mailing is allowed. If you use your laptop for any purpose than taking notes, you will have to leave the class and it is your responsibility to acquire missed information

Note

Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the counselor working with disabilities at (678) 915-7391 as soon as possible to better ensure that such accommodations are implemented in a timely fashion.