

Class Syllabus  
**BCT 486L Project Controls**  
**Section X080- (Fall 2009)**

<b>SOAR Schedule:</b>	Asynchronous
<b>2008-2009 Catalog Data:</b>	BCT 486L: Project Controls Lab. 1 hr. Prerequisites: BCT 455. Corequisite: BCT486, 2hrs. The study of financial and document control of construction projects. Project Management duties and responsibilities of a construction manager.
<b>Instructor:</b>	John Jeffrey Hannon, Associate Professor School of Construction, 118 College Drive, #5138 Hattiesburg, MS 39406-0001 601-447-0444 (phone); 601-266-5717 (fax) john.hannon@usm.edu <a href="http://jjhannon.com">http://jjhannon.com</a>
<b>Office Hours:</b>	-Tuesdays, Hattiesburg Office 1:00-5:00pm -Thursdays, Hattiesburg Office 3:00-5:00pm -Fridays, Hattiesburg Office 1:30-4:30pm
<b>Drop Date:</b>	The last day to drop this course without financial penalty: Friday 09/01/2009. See this semester's Academic Calendar (on the USM website) for other important dates: <a href="http://www.usm.edu/registrar/calendars/fall_2009/index.php">http://www.usm.edu/registrar/calendars/fall_2009/index.php</a>
<b>Prerequisites By Topic:</b>	Estimating skills, PC skills, basic spreadsheet familiarity, scheduling knowledge.
<b>Course Overview:</b>	This course is designed for you to attain skills and knowledge of construction project management and controls. To successfully complete construction projects in today's industry, the skills of resource allocation/management, cost and schedule control, and trend analysis are required. The intention is to influence events before the costs occur in order to maximize financial return or minimize losses. The lectures and readings will give you a body of knowledge upon which to base active-learning exercises in the lab and outside of class. These exercises are intended to teach you the skill sets required to run projects in a proactive manner. The course is delivered in a process-oriented format called the Total Cost Management (TCM) Framework. The content density is significant, but if you apply yourself to the lectures and lab exercises, you will leave with the tools (and confidence) necessary to accept the responsibilities which will be given to you by future employers.
<b>Learning Outcome:</b>	To acquire the skills and knowledge of construction project management and control.
<b>Course Objectives:</b>	Students will apply Total Cost Management theory and principles by performance of the following skills: <ol style="list-style-type: none"><li>1. Plan and Develop Work Breakdown Structure</li><li>2. Plan and Develop Construction Project Schedules.</li><li>3. Estimate Construction Project Costs and Budgets.</li><li>4. Perform Construction Project Resource Planning.</li><li>5. Perform Construction Project Procurement Planning.</li><li>6. Perform Construction Project Control Plan Implementation.</li><li>7. Perform Construction Project Cost Accounting.</li><li>8. Perform Construction Project Progress and Performance Measurement.</li><li>9. Analyze Construction Project Performance Assessment.</li><li>10. Perform Construction Project Forecasting.</li><li>11. Perform Construction Project Change Management.</li></ol>

**Course**

**Communication:** The main mode of one-to-one communication will be through the combination of physical contact hours and the course website/(WebCT/Blackboard).

**Required Text(s):**

1. QuantumPM, LLC. (2007). *Special Edition Using Microsoft Office Project 2007*. USA: Que Publishing. ISBN 0-7897-3652-7

**References:**

Hollmann, J. K. (2006). *Total Cost Management Framework* (First Edition ed.). Morgantown, WV: AACE International.

(Available for no charge after registration at this link: <http://www.aacei.org/tcm/>)

Hendrickson, C. (2000). *Project Management for Construction*. Pittsburgh, PA. <http://pmbook.ce.cmu.edu/>

**Library Resources:** The USM Library can be accessed online at: <http://www.lib.usm.edu/>

**Class Procedures**

**And Requirements:** To succeed in this course you will need to do the following:

- All Sections: Spend as much time as you possibly can (both inside and outside of the Lab) with the Microsoft Project scheduling application. Daily use and navigation of the software, along with the course text and tutorial videos will enable most of you to master the tool sufficiently for concentration on the Total Cost Management skills which are most important.
- All Sections: Do your own work. This class, because it involves electronic media and requires time discipline, affords opportunities to cheat. Think very seriously about this as the ramifications could be an F in the course. Read the Academic Honesty portion of this document.
- All Sections: Be as proactive as you can possibly be in the development of your assignments. If you procrastinate or under-estimate the time required to produce the deliverables, you will not get them finished. Such situations can tempt the mind for an easy fix...read the above bullet again.

Your comprehension of the reading and lecture material will be assessed via tests and quizzes. Your application of the theory portion of the course will be assessed in the associated Lab Section. The final project will be presented to the class as a Project Execution Plan (PEP). You will develop MS Project control forms and integrate them together for a working application which you can take with you and utilize in industry.

## Computer Competencies:

Students are expected to have basic experience with the generic applications. At the end of the course they will be proficient with the course-specific applications. The instructor will 'guide', not 'train' students in the use of software applications, therefore, significant time and effort are required to learn these systems:

<u>Software</u>	<u>Application</u>	<u>Course Objectives</u>
Spreadsheet (Microsoft Excel)	Code, WBS, Budget creation	1-11
Word processor (Microsoft Word)	Report, summary, document creation	1-11
Slide presentation (Microsoft PowerPoint)	Report communication	1-11
Email Client	Course business, administration, submittals	1-11
Microsoft Project 2007	Budget, CPM Schedule, Work Plan creation	1-11
Web Browser (Microsoft Explorer v7)	Access to course shell in WebCT/Blackboard	1-11
Adobe Reader	Access to administrative and assessment documents	1-11

## Evaluation Criteria (Assessment Methods):

1	Lab Assignments	60%
2	Final Project	40%

## Grading Scale:

A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

## ADA Compliance:

If a student has a disability that qualifies under the American with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

Address:

The University of Southern Mississippi  
Office for Disability Accommodations  
118 College Drive # 8586  
Hattiesburg, MS 39406-0001

Voice Telephone: (601) 266-5024 or (228) 214-3232 Fax: (601) 266-6035

Individuals with hearing impairments can contact ODA using the Mississippi Relay Service at 1-800-582-2233.

## Attendance:

Attendance is not a part of course grading assessment. It is better to be tardy than to miss a session. It is best to do neither. Should you be absent for a lecture or lab, it is your responsibility to attain the information, skills, handouts, etc. It is not the responsibility of the instructor to teach lectures which you have missed during instructor office hours, which are reserved for all students. I do not consider it my responsibility to provide you with information outside of the course WebCT/Blackboard shell when you have missed class, for any reason(s). I can tell you from experience, that most students which attain 'A' grades attend class. The choice is yours if you are not in an online section. Finally, know that I want you in class for your participation and the benefit of the entire group.

Tardiness will not be tolerated as it disrupts the instructor and students who are prompt. Three late arrivals to class recorded by the instructor will result in the loss of one letter grade. Tardiness is considered any arrival after the posted SOAR scheduled start according to my 3G Network phone time..

## Late Assignments or Projects:

In order to emulate the nature of the industrial building environment, late work will not be accepted regardless of the amount of effort expended in the assignment or project. The only exceptions are documented 'acts of God', death or illness in the family, or personal illness.

**Academic Honesty:** Students are expected to do their own work on all graded course assignments including quizzes, tests, etc. except when the professor indicates that collaboration is permitted. Faculty reserves the right to impose the appropriate sanctions in the event that a student cheats or refuses to sign an honesty statement on graded material.

The following is from the USM 2008-2009 Graduate/Undergraduate Bulletin:

“When cheating is discovered, the faculty member may give the student an “F” on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the dean of students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct, as published in the *Student Handbook* and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered by The University of Southern Mississippi.”

Students must send the instructor an e-mail stating that they understand USM’s academic honesty policy and understand that if they do not uphold the standards of academic honesty, the instructor will enforce all applicable punishment.

Please make sure that you understand the difference between collaboration and performing your own work. Collaboration involves communicating with others regarding techniques, methods, and ideas and is acceptable. It does not involve dividing work between a group of individuals which should be accomplished separately. Be very careful with the electronic spreadsheets and assignments, as all portions of each assignment should be accomplished by the INDIVIDUAL.

**Professionalism:** Is expected at all times. I will conduct myself and the relationship with you based upon what is standard protocol in the construction industry. Do not sleep during my lectures or guest lecturers (stand up or excuse yourself politely if you cannot remain awake). Do not conduct computing sessions during my lectures. Do not, with the exception of extenuating circumstances, use mobile phones or pagers during my lectures.

**Computer usage:** Spreadsheets, Estimating Applications, Scheduling Applications, Word Processor, Slide Presentation, Web Browser, Adobe Reader. See ‘Computer Competencies’ above.

**Course Schedule:**

HRS	Date	Lab Topic
1.92 1	8/25/2009	Orientation/Introduction to MS Project
1.92 2	9/1/2009	Tool Set-up
1.92 3	9/8/2009	Project Scope-WBS-Work Packages
1.92 4	9/15/2009	Project Scope-WBS-Work Packages
1.92 5	9/22/2009	Activity Logic-Durations
1.92 6	9/29/2009	Resource Loading-Allocation
1.92 7	10/6/2009	Quantification-Cost-Budgeting
1.92 8	10/13/2009	Resource Leveling-Procurement Planning
1.92 9	10/20/2009	Code of Accounts-Control Accounts
1.92 10	10/27/2009	Baseline-Recording Work Progress
1.92 11	11/3/2009	Tracking Variance-Earned Value
1.92 12	11/10/2009	Forecasting
1.92 13	11/17/2009	Change Impact-Change Management
1.92 14	11/24/2009	Assessment and Reporting

I reserve the right to make fair and equitable adjustments to this syllabus by way of addendum. I will also keep the Calendar Tool updated in the WebCT/Blackboard shell with quiz and assignment due dates.

**Learning Outcome-  
Assessment Matrix:**

Lab Topic	Objective										Assmnt	
	1	2	3	4	5	6	7	8	9	10	1	2
Orientation/Introduction to MS Project	•										•	•
Tool Set-up	•										•	•
Project Scope-WBS-Work Packages	•										•	•
Project Scope-WBS-Work Packages	•										•	•
Activity Logic-Durations	•										•	•
Resource Loading-Allocation			•								•	•
Quantification-Cost-Budgeting		•									•	•
Resource Leveling-Procurement Planning				•							•	•
Code of Accounts-Control Accounts						•					•	•
Baseline-Recording Work Progress					•						•	•
Tracking Variance-Earned Value							•				•	•
Forecasting									•		•	•
Change Impact-Change Management										•	•	•
Assessment and Reporting	•	•	•	•	•	•	•	•	•	•	•	•

Lab Topic	TAC-ABET PROGRAM CRITERION											TAC-ABET CRITERION						ACCE Core Subject			
	a	b	c	d	e	f	g	h	i	j	k	a	b	c	d	e	f				
Orientation/Introduction to MS Project	•			•				•								•			5.26	5.64	5.67
Tool Set-up	•			•		•		•								•			5.26		5.67
Project Scope-WBS-Work Packages	•			•		•		•				•				•			5.21	5.64	5.67
Project Scope-WBS-Work Packages	•			•		•		•				•				•			5.21	5.64	5.67
Activity Logic-Durations	•			•		•		•				•				•			5.23	5.64	5.67
Resource Loading-Allocation	•			•		•		•				•				•			5.24	5.64	5.67
Quantification-Cost-Budgeting	•			•		•		•				•	•			•			5.15	5.64	5.67
Resource Leveling-Procurement Planning	•			•		•		•				•				•			5.24	5.64	5.67
Code of Accounts-Control Accounts	•			•		•		•				•				•			5.31	5.64	5.67
Baseline-Recording Work Progress	•			•		•		•				•				•			5.22	5.64	5.67
Tracking Variance-Earned Value	•			•		•		•				•	•			•			5.34	5.64	5.67
Forecasting	•			•		•		•				•	•			•			5.36	5.64	5.67
Change Impact-Change Management	•			•		•		•				•	•			•			5.25	5.64	5.67
Assessment and Reporting	•			•		•	•	•				•				•			5.22	5.64	5.67