Course Syllabus

Fall, 2012

COURSE DESCRIPTION

This course will be devoted directly to the management of both construction and engineering project through the application of CPM Scheduling techniques. CPM planning and scheduling, network construction and durations are key topics to be addressed. PDM and precedence networks will be developed along with resource leveling, restraints, the procurement process and the preconstruction/engineering phases of work will also be developed. Cost Control, updating, and the revising of these schedules are “critical” to the understanding of the management process and as such are included in the course.

The scheduling package of the SYNCHRO software will be used to physically develop the scheduling assignments developed and presented in the course.

Three (3) Semester Hours

PROFESSOR

Dr. Gregory P. Wilson, P.E.

CONTACT INFORMATION

Office: 218 AG/IT Bldg.
Office Hours: As Posted
Telephone: 903-468-8115 (Direct)
Email: gregory.wilson@tamuc.edu (NEW EMAIL)

CLASS MEETINGS INFORMATION

MWF 1100 –1215 AGIT 218
COURSE OUTLINE & OVERVIEW

The material covered in this course is detailed in nature and will require a significant amount of reading and comprehension. Reading assignments will be required on a weekly basis and quizzes given to be certain that students are reading and understanding the concepts presented.

A significant amount of time has been spent with the author of the text in developing assignments OUTSIDE the text book which require the development and understanding of the various scheduling techniques presented in the course.

All of these assignments have not yet been completed but will be completed by EACH student. No group projects of any kind will be required as it is critical that each student understands the topics presented throughout the course.

No tests are scheduled. However grades will be based on quiz scores and the development of schedules required during the course. Handouts will be provided outlining the requirements for each assignment. These too, are still being developed at the time this syllabus was being prepared.

Following is a preliminary schedule of skill sets that will be presented during the course:

WEEKS 1-3

- Introduction to CPM Planning and Scheduling
- The Theory of CPM Planning and Scheduling
- Net Work Construction

WEEKS 4-7

- Calculation of Durations
- Activities
- CPM vs PERT
- OUTPUT of Calculations

WEEK 8-12

- PDM and Precedence Networks
- Initial Schedule and Preconstruction Phase
- Best estimate of durations
- Restraints
Following is a preliminary schedule of skill sets that will be presented during the course: (continued)

WEEKS 13-FINAL EXAM WEEK

- SEMESTER PROJECT

ASSESSMENT OF STUDENT OUTCOMES

1. Student will be able to demonstrate the ability to understand and prepare CPM schedules for various complexities of engineering and construction projects
2. Student will be able to demonstrate the ability to calculate durations of activities thru and understanding of productivity and crew sizes
3. Student will be able to demonstrate the ability to level resources for a project with respect to both manhours and equipment.
4. Student will be able to demonstrate the ability to calculate by hand, the output of CPM program calculations including various types of FLOAT.
5. Student will be able to demonstrate the ability to determine THE CRITICAL PATH of a network logic diagram by hand calculations as well as understand the output of a computer-generated network
6. Student will be able to demonstrate the ability to evaluate and make changes in a reasonably complex network given funding and equipment restraints
7. Student will be able to demonstrate an understanding of the calculation of delays from actual jobsite data and their overall impact on a project.
8. Student is prepared to demonstrate an understanding of CPM and Cost Control including S curves, progress payments, and cost forecasting.

COURSE TEXT

ATTENDANCE POLICY

Every student is expected to attend every class. No effort will be made to track down missing students and/or assignments. Each student is responsible for turning in the assigned work.

LATE WORK

NO LATE WORK IS ACCEPTED.

COURSE GRADING

- 10 quizzes @ 10 PTS Each ............................... ..........100
- 3-5 CPM Schedules .................................................150
- Final Project .......................................................500

TOTAL POINTS ____________________________ 750 PTS

8 Point Percentage Grading Scale will be used throughout the semester.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>92 – 100</td>
<td>A</td>
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<tr>
<td>84 - 91</td>
<td>B</td>
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<tr>
<td>76 - 83</td>
<td>C</td>
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<tr>
<td>68 - 75</td>
<td>D</td>
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<tr>
<td>&lt; 68</td>
<td>F</td>
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CLASSROOM POLICIES

USE OF CELL PHONES WILL NOT BE TOLERATED.
ACADEMIC INTEGRITY

Academic dishonesty of any kind will not be tolerated. You run the risk of receiving a failing grade in the course in addition to expulsion from the University. Please refer to Code of Student Conduct in the Student Handbook for all details.

NOTE!

STUDENT BEHAVIOR

Members of the student body at Texas A&M University-Commerce are expected to obey all federal, state, and local laws in addition to the regulations of the University.

ADA

Each division within the University is aware of the needs of the disabled student and is ready and willing to work with each student to solve problems as they arise. The Supervisor of Services is located in the Student Services Building, 3rd floor, (903)- 886-5835. The Compliance Office for the Disabled is located in the Business Administration Building 2nd Floor, room 296.
STUDENT SIGNATURE PAGE

Your signature on this page signifies that you have READ and UNDERSTAND the contents of this syllabus and have had ALL questions answered. Please Print out a copy of this page, sign and turn in.

Student Signature

Printed Name

Date

Gpw
8/8/2012
Dsk/mycourses/CONE422