PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

CONSTRUCTION, MANAGEMENT, SCHEDULING & CODES
CET 2020

Class Hours: 2.0 **Credit Hours: 3.0**

Laboratory Hours: 3.0 **Date Revised: Spring 02**

Catalog Course Description:

Implementation of the Standard Building Code, specifications, bonds and contractor relations and responsibilities. Support topics include principles of project control, including bar charts, critical path, field reports and cost control systems.

Entry Level Standards:

Students entering this course should have a general familiarity with construction methods, materials, and terminology. A basic familiarity with cost estimating will also be expected. This basic understanding may come from previous curriculum courses or from field experience. Math skills should be sufficient to allow manipulation of simple algebraic equations. Communication skills should be sufficient for the comprehension and presentation of technical data.

Prerequisites:

Second-year status

Textbook(s) and Other Reference Materials Basic to the Course:

Text:
The Noah Project: The Secrets of Practical Project Management, Brookfield, Gower
Microsoft Project 2000: Step by Step, Microsoft Press
Other:
- Scientific Calculator
- Paper - Pencil
-Floppy Disks (2 minimum)

I. Week/Unit/Topic Basis:

Week	Topic
1	Lecture: Introduction Lab: Introduction
2	Lecture: Scheduling Skills, Definitions and Concepts Lab: Arrow Diagraming Techniques
3	Lecture: Scheduling Skills, Definitions and Concepts

	Lab: Arrow Diagraming Techniques
4	Lecture: Intro to PM&S Software Lab: Intro to PM&S Software
5	Lecture: Precedence Relationships Lab: Precedence Relationships
6	Lecture: Work Breakdown Structures Lab: Work Breakdown Structures
7	Lecture: Work Breakdown Structures; EXAM 1 Lab: Work Breakdown Structures
8	Lecture: Risk Management Lab: Risk Management
9	Lecture: Mitigation Planning Lab: Risk Management
10	Lecture: Establishing and Managing Budgets Lab: Establishing and Managing Budgets
11	Lecture: Mastering Applications Lab: Mastering Applications
12	Lecture: Mastering Applications Lab: Mastering Applications
13	Lecture: Gantt Charts Lab: Gantt Charts
14	Lecture: PERT Netrworks Lab: PERT Netrworks
15	Lecture: Conveying and Presenting Schedules, Reports, Plots and Prints Lab: Conveying and Presenting Schedules, Reports, Plots and Prints
16	FINAL EXAM

II. Course Objectives*:

A. Define project management terms. I , II & III

B. Demonstrate proficiency in one or more project scheduling software aplications. I , II & III

C. Create computerized Gantt charts, CPM networks/diagrams. I, IV & V

D. Manipulate computerized Gantt charts, CPM networks/diagrams, task entry forms, calendars, and time scales. I, II, IV & V

E. Establish and manage budgets and subprojects. I, II, IV & V

F. Convey a schedule through reports, plots and prints. I, II, IV & V

*Roman numerals after course objectives reference goals of the CET program.

III. Instructional Processes*:

Students will:

1. Actively listen to class lectures and participate in class activities that develop and reinforce comprehension of the theories, concepts, principles and applications of distance measurement using surveying instruments. *Communication Outcome, Problem Solving & Decision Making Outcome, Active Learning Strategies*

2. Work individually and in teams to complete lab assignments related to the theories, concepts and principles covered in the lecture portion of the course. *Communication Outcome, Problem Solving & Decision Making Outcome, Information Literacy Outcome, Active Learning Strategies*

3. Use Project Management, WordPerfect/Word or other appropriate software to generate written home work assignments. *Communication Outcome, Problem Solving & Decision Making Outcome, Technological Literacy Outcome, Numerical Literacy Outcome, Information Literacy Outcome, Active Learning Strategies*

*Strategies and outcomes listed after instructional processes reference Pellissippi State's goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Demonstrate proficiency in one or more project scheduling software applications. B

2. Explain the principles of construction project management. A

3. Define project management scheduling terms. A

4. Demonstrate the ability to develop and defend an aggressive construction schedule. A & B

5. Establish precedence relationships. C & D

6. Track and manage a construction schedule. D

7. Evaluate and update a construction schedule. D

8. Create a gantt chart. C

9. Create a CPM chart. C

10. Manipulatee a gantt chart. D

11. Manipulate a CPM chart. D

12. Establish and manage budgets and subprojects. E

13. Import/export data. E

14. Create reports, plots and prints of schedules. F

15. Convey a schedule through reports, plots and prints of schedules. F

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

Two examinations are scheduled. They will be True/False, Multiple Choice, Matching, and Short Answer Essay. Students may make up one exam due to absences.
Examination will normally be given as scheduled. Should a student have a planned vacation, operation, etc. occur during a scheduled exam, every effort should be made to take the exam prior to the scheduled absence. When a student misses an exam due to illness, he must contact the instructor immediately upon return and make-up the exam within one week.

B. Laboratory Expectations:

Quizzes:
Quizzes may be given by the instructor. Most quizzes will be unscheduled and randomly given. They cover the previous sessions material or the reading assignment for that day. There is no make-up or extra credit given for quizzes missed.
Written Assignments:
Students may be required to hand in answers to select questions at the end of each chapter or other appropriate homework at the instructor's discretion. All written assignments must be handed in on 8 x 11 engineering notepad, typing paper, or forms provided by your instructor. Students are encouraged to use word processing to generate their reports.
All written assignments will be assessed a 10% penalty for each school day it is date.
All student work submitted for evaluation may be retained by the instructor.

C. Field Work:

Semester Project: Each student will complete and present a Construction Schedule and budget as required by the instructor.

D. Other Evaluation Methods:

A subjective evaluation based on attendance, classroom participation and attitude may be included (10%).

E. Grading Scale:

Final grades will be computed from the grades obtained on homework, quizzes and examinations as follows:
Quizzes & Homework = 10% - 20%
Semester Project = 25% - 30%
Examinations = 40% - 50%

Grades are based on the following:
90 - 100 A
80 - 90 B
70 - 80 C
60 - 70 D
Below 60 F

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course (Pellissippi State Catalog). Individual departments/programs/disciplines, with the approval of the vice president of Academic and Student Affairs, may have requirements that ar more stringent.

It is the student's responsibility to attend every scheduled class activity on time.
Students are responsible to get assignments missed and to make-up any work missed during an absence.

B. Academic Dishonesty:

To use any form of unauthorized aid (notes, text, etc.) during a quiz or obtain any form of help from another student during testing is considered a form of cheating. Any time any form of cheating is observed the student will receive a 0 on that quiz or test.