

Common Course Outline
CONT 151
Construction Planning and Scheduling
3 Semester Hours

The Community College of Baltimore County

Description

Construction Planning and Scheduling

Covers the planning elements necessary before and during a construction project; discusses topics as separate and interrelated subjects in order to demonstrate the need for manpower, materials, and equipment coordination emphasizing importance of good planning upon projected job costs and profits.

3 credits: 3 lecture hours per week.

Prerequisite: CONT 106 or equivalent experience. Offered fall semester only

Overall Course Objectives

Upon completion of this course the student will be able to:

Introduce Contemporary methods of scheduling construction projects.

Show basics of developing project schedules in an activity based format.

Develop a working understanding of the Critical Path Method.

Examine uses and requirements for construction schedules.

Identify primary and secondary requirements for a schedule in the various project phases.

Develop listing of activities required for a construction project.

Develop logic network diagrams showing sequence of construction.

Determine estimated planned duration for each activity.

Perform Critical Path Forwards Pass Calculations to determine Early Time Boundaries.

Perform Critical Path Backwards Pass Calculations to determine Late Time Boundaries.

Determine the Critical Path for the project.

Determine Float time on each activity.

Develop Submittal Schedules.

Develop Approval/Delivery schedules and ROJ dates.

Update Project Schedules based upon actual performance.

Compare Actual vs. Planned Schedules.

Identify causes for delays and propose solutions to mitigate delays.

Estimate costs incurred due to accelerating project schedule.

Evaluate cost effectiveness of various acceleration options.

Major Topics

Developing a network model

Developing an arrow-diagram network

Performing time calculations

Precedence diagrams

Determining activity durations

Time in contract provisions

Resource allocation and resource leveling

Money and network schedules

Project monitoring and control

Computer scheduling

Earned value: a means for integrating costs and schedule

Impact of scheduling decisions on productivity

CPM in dispute resolution and litigation

Short-interval schedules

Linear scheduling

Program evaluation and review technique

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member and will include at least 4 out of the 7 categories that follow:

Homework

Projects
Mid term
Term paper/oral report
Classwork
Team project
Quizzes
Final exam
There will be a minimum of 8 graded assignments.

Writing: The individual faculty member will determine specific writing assignments.

Other Course Information

This course is a _____X_____ core course and a _____ elective.
This course is taught in a computerized environment.
This course is the first course in a required two-course sequence.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

Date Revised: 09-08-00