NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

BLD 247 - CONSTRUCTION PLANNING AND SCHEDULING (3 CR.)

COURSE DESCRIPTION

Introduces principles of planning and scheduling of a construction project. Includes sequence of events and processes on a construction site. Studies scheduling techniques including the critical path method. Lecture 3 hours per week.

GENERAL COURSE PURPOSE

Purpose is to acquaint the student with fundamentals of construction planning, scheduling, and managing.

ENTRY LEVEL COMPETENCIES

College level competencies in knowledge of construction [building] materials and methods; contract documents and codes, and construction [building] cost estimating.

COURSE OBJECTIVES

Upon completion of this course, student will:

A. have knowledge of construction and building planning and scheduling; introduction to GANTT [bar] chart; introduction to critical path methods [CPM]
B. be able to analyze and plan task and job duration; capability to organize individual task into optimum job using CPM, and PERT methods
C. have capability to revise job planning to accommodate changes
D. have capability to utilize current microcomputer, software for construction planning

MAJOR TOPICS TO BE COVERED

A. Overview of Construction/Building Planning and Scheduling
B. Introduction to GANTT scheduling methods
C. Introduction to Critical Path Methods [CPM] and Project Evaluation and Review Techniques [PERT]
D. Utilization of CPM method; concept of early and late start and finish; calculation and use of float
E. Methods for accelerating and decelerating projects; compression and decompression
F. resource allocation and leveling
G. cash flow projection using CPM; Introduction to microcomputer software for project management
H. Computer Applications: Hands-on experience with microcomputer project management software

OPTIONAL TOPICS

Comparison of probabilistic and deterministic methods for task duration determination. Applications of simulation and modeling to construction planning and scheduling.