BCCM 2460

Division: Career and Technical Education
Department: Construction Technology
Course: BCCM 2460
Title: Construction Scheduling and Cost Control
Catalog Description:

This course provides instruction in the planning and scheduling of construction projects. Students learn construction project control through use of critical path, Gantt bar charts, and reporting practices using microcomputers.

General Education Requirements: N/A
Semesters Offered: Spring
Credit/Time Requirement: Credit: 2; Lecture: 2; Lab: 0
Clock/Hour Requirements: 30
Offered for Non-Credit: Yes
Prerequisites: N/A

Corequisites: N/A

Justification:

Planning and scheduling is an important aspect of effective construction. From recommendation of advisory committee and to enclose BYU transfer track, the course is needed.

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:

- learn the necessary skills to adequately schedule and control residential, commercial, industrial, manufacturing, engineering, or business projects
- generate bar charts and critical path networks, including early finish, late finish, durations, float, and identification of the critical activities which effect the timely completion of the project
- schedule construction projects using computers and read computer printouts.

Content:

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- Developing the Schedule
    - Introduction to planning and scheduling
    - Elements of a plan
    - Determine overall objectives and duration
    - Early and late start calculations
    - Early and late finish calculations
    - Float or slack time calculations
    - Total float, free float, string float, independent float
    - Lags
    - Network logic to include dependence, concurrence, and precedence
    - Identification of critical activities
    - Updating techniques
- Project Control Techniques (Time and Money)
    - Bar charts
- Project Monitoring
    - Progress charts and curves
    - Check sheets
- Computerized Scheduling Techniques
- Cost control, as it relates to scheduling.

General Education Outcomes:

Applied Education Outcomes:

1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study.

Each student will know the importance of scheduling each step of building a residential home using weather, timeframe, and preference of the builder. They will also know how and where expenses are in each step of the b uilding of the residential home.

2) Students will become aware of industry specific certification and develop skills sufficient to acquire the same.

All students will be aware that in building a residential building there are possibilities of becoming a contractor or being placed under a contractor that is required to know how to schedule steps to building a home and how to use money in the appropriate steps of building it.

4) Students will demonstrate interpersonal skills specific to the skills and environment inherent in their field.

Students will know when becoming a contractor or foreman that being able to interact with all people in the appropriate manner is an important key in scheduling the construction of the building and the best places to use what amount of money.

Key Performance Indicators:

Student Learning Outcomes will be assessed by one or more of the following Key Performance Indicators:

- computer-developed schedules of an actual construction project
- practice problems and assignments
- exams/quizzes (written or oral).

Representative Text and/or Supplies:

- Newitt, Jay S., *Construction Scheduling Principles and Practices,* current edition, Pearson Prentice Hall Publishers.

Optimum Class Size: 15
Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Marlin Christensen, M. Ed., Instructor

I hereby find this course consistent with the goals and resources of the Construction Technology Department:

Marlin Christensen, M. Ed., Instructor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)