



BCCM 1100

Division: Career and Technical Education

Department: Construction Technology

Course: BCCM 1100

Title: Construction Math and Estimating

Catalog Description:

In this course, students learn to compute quantities of materials, cost of materials, labor, and other costs related to a residential building.

General Education Requirements: N/A

Semesters Offered: Fall

Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 0

Clock/Hour Requirements: 45

Offered for Non-Credit: Yes

Prerequisites: Prior or concurrent enrollment in BCCM 1150 or BCCM 2010, or previous residential construction experience, or equivalent.

Corequisites: N/A

Justification:

This course provides essential skills needed by students who want to pursue a career in building construction and related fields. The program advisory committee has recommended this course.

Student Learning Outcomes:

Upon successful completion of this course, students will:

- develop, understand, and/or review the basic math skills needed for the building construction industry
- understand and be able to use the essential skills needed to manually complete a profitable bid for a residential home
- understand and be introduced to basic computerized estimating.

Content:

This course will include:

- review of basic math skills
- general rules of estimating

- manual estimating procedures
- contracts and bids
- introduction to computerized estimating.

General Education Outcomes:

6) Apply computational skills to a variety of contexts.

Students will review basic math skills as they pertain to construction related problems. These computational skills will be applied as students compute estimates for labor and material items needed for a complete residential house bid.

Applied Education Outcomes:

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

Students will know the basic skills needed to bid a construction job, from bidding the labor to bidding the cost of building materials and sub-contracting.

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

Students will all be aware of and know the possibilities of becoming a contractor and know the basic skills of building a residential home.

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

Students will know the importance of being able to speak with other contractors and businesses in the community to gather information critical for being able to bid a job.

Key Performance Indicators:

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

- basic construction math test
- faculty developed tests/exams (written or oral)
- attendance
- written assignments.

Representative Text and/or Supplies:

- *Construction Estimating Workbook*, developed by instructor.

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)