



Course Description

BCT1771 | Building Construction Advanced Estimating | 3.00 credits

Estimating more advanced elements of building construction. Students will learn to calculate direct, indirect, and overhead costs, as well as prepare bid proposals and related documents for commercial buildings. Prerequisites: BCN1275, BCT1770.

Course Competencies:

Competency 1: The student will demonstrate knowledge of calculating quantities of materials for commercial buildings by:

1. Performing quantity take-off site work, excavation, and piling
2. Performing quantity take-off concrete and framework
3. Performing quantity take-off masonry work, including concrete block, brick, and stone
4. Performing quantity take-off rough and finished carpentry, including millwork

Competency 2: The student will demonstrate the ability to calculate project pricing by:

1. Determining labor rates
2. Determining material costs
3. Determining subcontracting work costs
4. Determining general expenses and overhead

Competency 3: The student will demonstrate the ability to compare different types of estimates by:

1. Identifying different concepts used in estimating
2. Identifying design development cost estimates
3. Identifying bid estimates

Competency 4: The student will demonstrate synthesis of the estimating process for a commercial building by generating a bid package which will include:

1. Writing estimates for quantities of materials
2. Calculating materials and labor costs
3. Requiring documentation as per bid invitation

Competency 5: The student will demonstrate the ability to read and write technical material by:

1. reading the textbook assignments.
2. answering chapter summary questions

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Formulate strategies to locate, evaluate, and apply information
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Demonstrate an appreciation for aesthetics and creative activities