Miami Dade College

Course Description

BCT1770 | Building Construction Estimating Fundamentals | 3.00 credits

This course is an analysis and calculation of building construction costs. Students will learn the classification of materials, labor, and subcontracted work into the smallest manageable units. Students will also develop a simple estimate for a residential structure. Prerequisite: BCN1272.

Course Competencies:

Competency 1: The student will demonstrate knowledge of the estimating process by:

1. Identifying the role of estimating in the construction industry
2. Identifying the construction specifications institute divisions as they relate to labor and materials
3. Listing and defining applicable types of contracts and methods of estimating

Competency 2: The student will demonstrate the ability to evaluate various methods of estimating by:

1. Comparing unit cost to detailed estimating methods
2. Scheduling the estimating process
3. Reviewing computer estimating systems

Competency 3: The student will demonstrate the ability to measure quantities by:

1. Measuring in linear units
2. Measuring in square units (area)
3. Measuring in cubic units (volume)

Competency 4: The student will demonstrate the ability to calculate quantities from a given set of residential working drawings by:

1. Calculating site work and excavation
2. Calculating concrete work
3. Calculating masonry work
4. Calculating carpentry work

Competency 5: The student will provide pricing for materials cost by:

1. Obtaining quotes from suppliers and vendors
2. Consulting standard estimating reference books

Competency 6: The student will demonstrate synthesis of the estimating process by:

1. Preparing written estimates for the required quantities of material
2. Identifying appropriate CSI index divisions
3. Composing a list of subcontracting work necessary

Learning Outcomes:

- Use quantitative analytical skills to evaluate and process numerical data
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively
- Demonstrate an appreciation for aesthetics and creative activities