

Northwest Arkansas Community College
(Workforce Division)

Discipline Code

CST

Course Number

2413

Course Title

Estimating

Catalog Description

This is an introduction to the process of estimating the full cost of construction projects. Topics include contracts, bonds, insurance, specifications, overhead and contingencies, labor, equipment, excavation, concrete, masonry, metals, wood, thermal and moisture protection, doors and windows, finishes, electrical, plumbing, heating, ventilating, air conditioning and profit.

Prerequisites

CST 2213 or CST 2223

Credit Hours

3 credit hours

Contact hours

45 lecture contact hours

Load hours

3 load hours

Semesters Offered

Fall, Spring & Summer

ACTS Equivalent

N/A

Grade Mode

A-F

Learning Outcomes

Upon completing this course, the student should be able to:

- Illustrate the basic skills needed for quantity surveying of the major trades involved in a construction project.
- Recall and apply general estimating terminology.
- Describe the role of an estimator during all phases of a construction project.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students can write clear, coherent, well-organized documents, substantially free of errors.
- Students develop effective oral communication skills.
- Students can achieve mathematical literacy.
- Students demonstrate information literacy.

Standard Practices

Topics list

- Construction Methods and Materials
- Compositions and Properties
- Terminology and Units of Measure
- Building Codes and Standards
- Standard Designations, Sizes, and Graduations
- Conformance References and Testing Techniques

Learning activities

- Courses must, at a minimum, cover the core learning outcomes for each topic. Faculty may add to these outcomes, but may not omit any of them.
- Discussion boards allow students to share their understanding of each key area of estimating by applying the principles to commercial blueprints.
- Comprehensive final assignment demonstrate students' knowledge by completing a construction estimate for a commercial facility.
- Since all general education outcomes are supported by specific course and program outcomes, all instructors should include learning activities that develop these outcomes in their courses and identify them in course syllabi. Instructors should describe how these activities will be evaluated in their course syllabi and/or reflected in their gradebooks.

Assessments

Exams covering reliable construction pricing, attendance, and participation in cost estimating exercises.

Grading guidelines

- 90% score of all graded assignments = A
- 80% - 89% score on all graded assignments = B
- 70% - 79% score on all graded assignments = C
- 60% - 69% score on all graded assignments = D
- <60% score on all graded assignments = F

Revision Date March 4, 2022