

## Master Syllabus

### CAT 1401 - Construction Estimating

**Division:** Science, Mathematics and Engineering

**Department:** Civil Engineering Technology

**Credit Hour Total:** 3.0

**Lecture Hrs:** 2.0 **Lab Hrs:** 2.0

**Prerequisite(s):** MET 1101 OR CAT 1101 OR CAT 1201

**Date Revised:** January 2016

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### Course Description:

Construction estimating, beginning with an understanding of the costs of labor equipment and materials, as well as profit and overhead. Quantity measurements of basic construction materials will be used to develop bidding packages. Two classroom, two lab hours per week. Traditional testing (proctored or in Testing Center) is used in all online sections.

### General Education Outcomes:

- ▣ Written Communication
- ▣ Critical Thinking/Problem Solving
- ▣ Values/Citizenship/Community
- ▣ Computer Literacy
- ▣ Information Literacy

### Course Outcomes:

#### Common Building Materials

Identify common building materials and demonstrate familiarity with generally accepted formats.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or more of available points

#### Labor and Equipment Costs

Apply costs for labor and equipment to an estimate.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or more of available points

#### Bid Package

Create a bid package using an estimating software tool.

**Assessment Method:** Portfolios

**Performance Criteria:** 70% or more of available points

#### Bid Quantities

Calculate quantities of materials used in construction.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or more of available points

#### Overhead and Profit

Apply overhead and profit to an estimate.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or more of available points

### Outline:

Estimating Concepts Material Costs Labor Costs Overhead and Profit Final Bid Project