

# CMT 207 - CONSTRUCTION COST ESTIMATING

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## Course Description

In this course students will explore topics pertaining to the processes of construction estimating and bidding techniques. Those topics will include, but are not limited to, the discussion and exploration of the identification and quantification of construction materials, labor, and equipment for the construction bidding process. Some computer estimation programs and/or cost data publications will be used to develop estimates. Group 2 course.

## Credit Hours

3

## Contact Hours

3

## Lecture Hours

3

## Required Prerequisites

CAR 103, CMT 107, MTH 111 or higher, CIT 100

## Recommended Prerequisites or Skills Competencies

ENG 111-may be taken concurrently, math and reading skills are necessary for success in this course.

## General Education Outcomes supported by this course

Quantitative Reasoning

## Course Learning Outcomes

### Knowledge:

- Explain the cost estimating Process.
- Describe the design process.
- Develop construction contracts.
- Identify procurement methods.
- Incorporate preconstruction services.
- Conceptualize risk analysis and contingencies.

### Application:

- Calculate budget estimates.
- Research current labor rates.
- Identify necessary equipment.
- Create construction timelines.
- Identify cost overages and waste.

### Integration:

- Break down the variables to consider in estimating the cost of a job.
- Compare the different types of estimates.
- Explain the similarities among different jobs.
- Identify the different sub-contractors best suited not only for the job, but who can work together.
- Connect available budget with available equipment and personnel.

### Human Dimension:

- Conclude that sometimes the minimum standards are the best you can do.
- Appreciate how communication with customers, contractors, businesses requires a lot of compromise.

### Caring - Civic Learning:

- Recognize time spent in planning will produce the most efficient results.
- Recognize how the accuracy of an estimate can impact people's lives.

### Learning How to Learn:

- Reflect on the importance of efficiency and economics in planning projects.