



Course Outcome Summary

Required Program Core Course

CONM 244 – Construction Estimating

Course Information

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| Division | ASET |
| Contact Hours | 60 |
| Theory | 30 |
| Lab Hours | 30 |
| Total Credits | 3 |

Prerequisites CONM 101 – Materials of Construction and CONM 110 – Blueprint Reading or consent of instructor for qualified student with 2000 hours or more experience

Course Description

This course covers the processes used to tabulate accurate construction cost estimates. Quantity survey techniques are used to determine equipment, labor and material costs. A detailed cost estimate and bid package will be developed using computer database and estimating software. Conceptual cost estimating is introduced.

This course is a required core course for students pursuing a(n) AAS in Construction Management Technology

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A - Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.
- B - Define the roles, relationships and responsibilities of the participants in the design and construction process.
- D - Employ the methods, materials, used in the design and construction of buildings and civil works.
- E - Accurately quantify materials required for project construction.
- F - Interpret construction documents to accurately predict project costs and assign resources.
- I - Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

Course Outcomes

In order to evidence success in this course, the students will be able to:

CLO-1 Demonstrate knowledge of the construction cost estimating process including inputs, tools and techniques, and outputs.

- A - Analyze, interpret and understand the fundamental processes used to create project designs and construction documents.



CLO-2 Identify different type of estimates; estimates formats (CSI format and Uniformat), level of details, and different type of costs; direct, indirect, fixed, and variable costs.

D - Employ the methods, materials, used in the design and construction of buildings and civil works.

CLO-3 Apply different estimating techniques to calculate the costs of various construction activities and project components.

F - Interpret construction documents to accurately predict project costs and assign resources.

E -Accurately quantify materials required for project construction.

CLO-4 Analyze and evaluate construction drawings and specifications to identify project requirements and develop accurate cost estimates, calculate quantities; conduct quantity take-off

E -Accurately quantify materials required for project construction.

CLO-5 Utilize software programs commonly used in the construction industry, such as Excel or RS Means, REVU Bluebeam, to perform cost estimating and take-off tasks.

I - Operate industry-standard software for computer-aided design and drafting (CADD), project cost estimating, and project scheduling.

E -Accurately quantify materials required for project construction.

CLO-6 Develop a comprehensive understanding of the bidding process, including the preparation of bid proposals and the selection of subcontractors and suppliers.

B - Define the roles, relationships and responsibilities of the participants in the design and construction process.