

ATSM-1210: ESTIMATING AND BIDDING

Cuyahoga Community College

Viewing: ATSM-1210 : Estimating and Bidding

Board of Trustees:

2012-05-24

Academic Term:

Fall 2018

Subject Code

ATSM - Applied Ind Tech- Sheetmetal

Course Number:

1210

Title:

Estimating and Bidding

Catalog Description:

Covers the estimating and bidding process used by contractors to justify costs and to be awarded contracts for sheet metal projects. Included is bid information, contract language and field costs.

Credit Hour(s):

1

Lecture Hour(s):

1

Requisites

Prerequisite and Corequisite

Departmental approval: admission to Sheet Metal Worker's apprenticeship program.

Outcomes

Course Outcome(s):

Summarize the various communications that are used in the construction industry to identify contract opportunities in industrial, commercial and residential sheet metal work.

Objective(s):

1. Explain how Dodge Reports are used to identify jobs and contact information for construction projects and enable the contractor to obtain construction drawings and market analysis of projected development in respective trade areas.
2. List and interpret Government publications that report on projects affiliated with community development.
3. Describe how the Builder's Exchange is used for bid information including access to contract documents.

Course Outcome(s):

Identify different contracting options that are available to the owner and the contractor.

Objective(s):

1. Explain the bid process that is followed in "firm bid" agreements.
2. Describe the parameters involved in a "cost plus" agreement and list the advantages and disadvantages in such arrangements.
3. Explain the terms found in a negotiated contract.

Course Outcome(s):

Examine several field costs associated with any project and discuss how they affect the contract amount directly or indirectly.

Objective(s):

Identify the costs that are in addition to labor and materials of construction.

Compile a list of indirect expenditures, including Government mandated benefits to the worker, that contribute to total bid quote. Explain how safety during construction can affect the contract amount either positively or negatively. Discuss worker benefits including health care, pensions and worker compensation and explain how they add to the total bid.

Course Outcome(s):

Compare the different types of bid bonds that are available and explain how they must be incorporated into the construction contract cost.

Objective(s):

1. Discuss the guarantees provided by bonds connected to construction contracts with respect to submitted quotations.
2. Examine performance bonds and discuss how they insure compliance with the terms and conditions written in the contract.
3. Review cost that the contractor is responsible for including required specifications for material and labor.

Methods of Evaluation:

1. Tests
2. Quizzes
3. Class participation

Course Content Outline:

1. Communications
 - a. Dodge reports
 - i. Market analysis
 - ii. Projects
 - iii. Construction working drawings
 - b. Government publications
 - i. Community development projections and projects
 - ii. Department of Labor reports
 - c. Builders' exchange
 - i. Bid information
 - ii. Qualifications
 - iii. Deadlines
2. Contract options
 - a. Firm price contract
 - i. Fixed costs
 - ii. Owner/contractor agreements
 - iii. Additional work orders
 - b. Cost plus
 - i. Time and material arrangements
 - ii. "Not to exceed" clause
 - iii. Advantages versus disadvantages
 - c. Negotiated contracts
 - i. Bidding procedure and process
 - ii. Awarding of bids
 - iii. Supervision
3. Field and overhead costs
 - a. Direct
 - i. Labor
 - ii. Materials
 - b. Indirect costs
 - i. Health insurance
 - ii. Workman's compensation
 - iii. Pensions
 - iv. Office
 - c. Equipment
 - d. Safety

- i. Job performance
 - ii. Accidents
 - iii. Training
- e. Worker benefits
- 4. Bonding
 - a. Bid bonds
 - i. Deadlines
 - ii. Amount
 - iii. Certifications
 - b. Performance
 - i. Quality
 - ii. Contract language
 - iii. Time restrictions
 - c. Payment bonds
 - i. Subcontractor payments
 - ii. Employee wages
 - iii. Suppliers

Resources

International Training Institute. *Core Curriculum*. 2nd. International Training Institute Alexandria, Va., 2004.

International Training Institute. *Sheet Metal Apprentic Textbook #2*. 1st. Leo Meter Assoc. Inc., 1995.

International Training Institute. *Sheet Metal Math*. 2nd. International Training Institute Alexandria, Va., 2007.

Resources Other

www.bayareasmacna.org/edu_basic_estimating (http://www.bayareasmacna.org/edu_basic_estimating/)

www.fileguru.com/apps/sheet.metal.estimating/p3

Top of page

Key: 687