

Course Outline

Winter 2005

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| Division: Business, Engineering & Information Technology | |
| Program/Dept: | Architectural Engineering Drafting |
| Course Number: | TDR 269 Credits: 5.0 Variable: |
| Course Title: | Construction Estimating |
| Inst. Intent: | 21 Vocational Preparatory CIP: 15.1304 |
| Fee: | No Type: |

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| Degree/Certificate Requirement: | Yes | | |
| Name of Degree/ | Architectural Engineering Drafting | | |
| Certificate Requirements: | Associate of Applied Science Degree | | |
| Distribution Requirement for AA/AAS: | Yes | | |
| Transfer Status to 4-year institution: | No | | |
| If yes, please describe: | (May transfer to certain schools w/special transfer agreements) | | |
| Course Length: | Based on 11 wks/qtr. | Class Size: | 24 |
| Course Contact Hours: | 55 hrs. | | |
| Lecture: | 55 | Lab: | Clinical: Other: |
| Prerequisite: | No | If yes, please describe: | |
| Required Placement Tests: | No | If yes, please describe: | |
| Comments: | | | |

Course Description:

Course introduces quantity take-offs and pricing of materials by working on problems common to the general contractor. Focus will be on creating an ordered method of determining material and labor costs, addition factors may be included.

Course Outcomes/Learning Objectives:

1. To develop student skills in making accurate material take offs for a given building using the developed working drawings and specifications for that building.
2. To familiarize the student with different estimating procedures, classification of costs for different materials, and buying procedures.

NSCC General Education Outcomes and/or Related Instructional Outcomes (for technical courses) Met by Course:

- Outcome 2. Demonstrate the ability to use quantitative reasoning processes to understand, analyze, interpret and solve quantitative problems.
- Outcome 4. Demonstrate the ability to access, evaluate and apply information from a variety of sources and a variety of contexts.
- Outcome #6 Demonstrate computer competency appropriate to the student's general educational and occupational goals.

Topical Outline and/or Major Divisions:**I Introduction To Construction Estimating**

- A. Course contents, class procedures, texts and references

II Familiarization With The Process Of Estimating

- A. Background of people involved in estimating; Architect, Contractor, Estimator, Sub-contractor
- B. Different estimating procedures
- C. Classification of costs
- D. Buying procedures: concrete, reinforcing steel, lumber, plywood
- E. Estimating formats
- F. Professional and ethical considerations

III. Quality Survey Problems--Concrete and Earthwork

- A. Footings, step footings, column footings, foundation, pilasters, slab-on-grade, column girder, beam, joist, formed concrete slabs, floor finish, openings, tilt-up panels, earthwork

IV. Quantity Survey Problems--Wood Framing

- A. Floor, wall, partition, systems and shed, gable, plank and beam roof systems

V. Material Pricing Procedures**VI. Student, Instructor and Course Evaluation**

Course Requirements: Performance on assignments, projects and tests.

Methods of Assessment/Evaluation: Grade is based on accumulated points from assignments, projects, and tests.

Required Text(s) and/or Materials: Text as determined by instructor. Construction Estimating Reference Data, Ed Sarviel, ASPE, Craftsman Book Co. ISBN 0-934041-84-0

Supplemental Text(s) and/or Materials: Working drawings from industry.

Outline Developed by: Mark V. Hillman

Date: 3/90

Revised by: James Wall

Date: 5/95, 12/00, 2/02, 5/04