# SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY SAULT STE. MARIE, ONTARIO

## COURSE OUTLINE

Course Title: CONSTRUCTION ESTIMATING

Code No.: SUR 245-4

Program: CONSTRUCTION

Semester: FOURTH

Date: MAY, 1983

Author: W. R. DAVIES

New: Revision:

APPROVED:

Chairperson Date

\_\_\_Course Name

Course Number

#### PHILOSOPHY/GOALS:

- (1) To develop skill at placing a monetary value on proposed civil engineering works.
- (2) To develop an awareness of those factors that affect the cost of engineering work.
- (3) To encourage the habit of systematic record keeping.

#### METHOD OF ASSESSMENT:

| Equipment                   | 10   |
|-----------------------------|------|
| Handling and Transportation | 10   |
| Excavation                  | 15   |
| Unit Costs                  | 20   |
| Concrete                    | 15   |
| Project B.2                 | 30   |
|                             | 100% |

#### TEXT:

<u>Estimating Construction Costs</u> - Perifoy - McGraw-Hill

#### REFERENCE

Construction Estimating - Pulver - McGraw-Hill

Continuous Reading of Engineering New Record Cost Data

Topic Periods No.

Periods Topic Description

References

## Introduction to Estimating

Types of estimates Check lists Taxes, Overheads, Profit Insurance, Bonds

# Equipment Costs

Depreciation
Maintenance fuel spaces
Operation

## Handling and Transportation

Manual Mechanical

## Excavation and Earthworks

Manual

Mechanical - Trenching

- Bulk

Rock - Explosives Dewatering

## Highways and Pavements

Site clearing Total cost concrete highway Total cost asphalt highway

#### Concrete Construction

Formwork
Beam and slab
Rebar
Miscellaneous structures
Floors and Floor Finishes

Manual
Mechanical
Tiling
Metal decking
Composite deck

| topic<br><u>No.</u> | Periods | fopic Description  | References |
|---------------------|---------|--|------------|
| 8                   | 4       | <u>Unit Prices</u>   |            |
|                     |         | Industrial Plants<br>Highway Structures<br>Dams and Earthworks |            |
| 9                   | 4       | Sub-Contacts   |            |
|                     |         | Bid Invitation<br>Bid Analysis                                 |            |
| 10                  | 12      | Project^   |            |
|                     |         | Assembly of total project<br>Costs                             |            |