

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

COURSE OUTLINE

Course Title: SURVEYING  
Code No.: SUR 242 - 3  
Program: CIVIL  
Semester:  
Date: FEBRUARY 1989  
Author: V. VENN

New: Revision:

APPROVED: Chairperson Date

QUANTITY SURVEYING I

SUR 242 - 3

Course Name

Course Number

PHILOSOPHY/GOALS

1. To develop an appreciation of the place for quantitative assessment in every field of the construction industry.
2. To attain a high level of accuracy in quantitative problem solving.
3. To understand the methods of site development and excavation.
4. To evaluate the material content of concrete structures.

METHOD OF ASSESSMENT (GRADING METHOD)!

Course Work	60%
Final Examination	40%
	100%

TEXTBOOK(S) ;

C.I.Q.S. Methods of Measurement

Estimating Building Construction Quantity Surveying  
(W. J. Hornung).

**TOPIC DESCRIPTION**

**TOPIC  
NO.**

1. Introduction, Definitions, Quality, Surveying vs. Estimating, The estimator, Purpose and Scope; Estimates; Responsibilities of Superintendents, Architects, Contractors, Material Supply Persons, Mechanics; General conditions. Specifications, A Typical Take Off.
2. Measuring Irregular Areas:  
- Trapezoidal Rule, Prismoid Formula, Simpsons Rule, Counting Squares, Areas  
By - Planimeter; Assignments
3. Earthwork and land leveling. Excavation, Backfill, Grading, Cut and Fill, Soil Shrinkage. Trench and Hand Excavation.  
- Assignments
4. Concrete Foundations -  
Unit method. Perimeter method. Center Line Method  
- Assignments
6. Forms, Footings Walls, Trenches
6. Re-Inforced Concrete  
Re-Bar, Foundations, Piers Columns.  
- Assignments
7. Reading Steel Plans and Schedules and Estimating Steel Structural Foundation Plan, Structural first floor plan, Concrete Columns, Schedules, Steel Column and Footing Schedule. Steel Lintels. Take Offs, Estimating weight of Bearing Plates and Column Base Plates. Assignments.
8. Lumber, Board Feet, Linear Feet, The Take Off, Wood Joists, Common Rafters, Estimating the Number of Wall Studs, Jole Plates, Insulating Sheathing, Plywood, Sheathing Panels  
- Assignments