SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: Computer Aided Design

CODE NO.: CAD305 SEMESTER: VI

PROGRAM: Civil Engineering Technology

AUTHOR: D. J. Elliott

DATE: January, 1994 PREVIOUS OUTLINE DATED:

APPROVED: _____ _____ 94-01-05
DEAN DATE

COMPUTER AIDED DESIGN **CAD305**
COURSE NAME **CODE NO.**

TOTAL CREDIT HOURS 64

PREREQUISITES(S) CAD120

I. PHILOSOPHY/GOALS:

This course is designed to provide the student with a working knowledge of the capabilities of the microcomputer for engineering design and construction administration. A select group of programs will be used to accomplish this goal.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

1) Build upon microcomputer skills which have been developed in previous courses

2) Aquire a basic knowledge of spreadsheet software and the numerous applications in the engineering field

3) Be able to use AutoCAD in three dimensions

4) Use structural design programs in steel and wood

III. TOPICS TO BE COVERED:

1) Review of microcomputers and disk operating system

2) Spreadsheets and applications

3) AutoCAD drafting in 3D

4) Structural design software

IV. LEARNING ACTIVITIES:	**REQUIRED RESOURCES:**
1. Introduction/Overview - review disk operating system - file organization and backup procedures	
2. Spreadsheet Technologies - introduction to spreadsheet software - exercises for spreadsheet software including: - sanitary and storm sewer design - construction contract administration - payments and estimating	Course text
3. Computer Aided Drafting and Design - 3D exercise in AutoCAD, sample building in structural steel	Course notes
4. Structural Design - Wood design software - Structural steel design software	

V. METHOD OF EVALUATION:

A final grade will be derived from the results of assignments and tests weighed as follows:

Assignments and Exercises	50 %
Tests (two @ 25%)	50 %
TOTAL	100 %

The grading system used will be as follows:

A+	90 - 100%
A	80 - 89%
B	70 - 79%
C	55 - 69%
R	Repeat

1) Minimum acceptable grade for this course is 55%.

2) Students obtaining a composite grade below 55% may be allowed to complete a supplementary examination. Eligibility for a rewrite will be based on class participation, attendance and overall grade, which should be at least 45%.

3) When a rewrite is granted, the maximum obtainable grade in the course will be 60%.

VI. REQUIRED STUDENT RESOURCES:

Kraynak, Joe; 10-Minute Guide to Quattro Pro IV, Quick Lessons for Spreadsheet Success; SAMS - Division of Prentice Hall

Note: Additional reference material includes software documentation as required.

VII. SPECIAL NOTES:

Students with special needs (eg. physical limitations, visual impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

The instructor reserves the right to modify the course as required to meet the needs of the students.