SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: COMPUTER AIDED DRAFTING & DESIGN
_____

Code No.: CAD 300-3
_____

Program: _____

Semester: _____

Date: SEPTEMBER, 1986
_____

Author: MEL URSELL

                                    X
                        New:_____ Revision:_____

APPROVED: _____   _____
          Chairperson   Date

CALENDAR DESCRIPTION

COMPUTER AIDED DRAFTING & DESIGN	CAD 300-3
Course Name	Course Number

PHILOSOPHY/GOALS:

To understand the use of the computer to develop graphic presentations.

To explore "AUTOCAD" and other software packages available for graphic presentation in various disciplines.

To understand basic computer concepts as they apply to Engineering design and drafting.

To achieve a basic knowledge of "AUTOCAD" principles by a hands on approach on the microcomputer.

METHOD OF ASSESSMENT (ALL COURSES)

The following grades will be assigned:

    A - 75 - 100%   consistently above average achievement
    B - 66 - 74%   average achievement
    C - 55 - 65%   satisfactory achievement
    I - Incomplete
    R - Repeat   the student has failed to achieve the
                       objectives of the course and must repeat
                       the course

The "I" grade (Incomplete) designation indicates that the student has not completed the objectives required in specific course areas.

Semester work will be made up of tests and assignments. All tests and assignments must be completed when assigned. Late assignments or projects will not be tolerated.

Attendance is also mandatory in all classes.

Tests and assignments will be given on a regular basis throughout the semester. Final examinations are also mandatory for any student that does not maintain an "A" average in the course or who has not completed all assignments by their due date.

REFERENCE TEXTS:

AUTOCAD, Users Reference -- by Autodesk, Inc.

Inside "AutoCAD" -- by D. Raker & M. Rice (New Riders Publishing)

CAD 300-3

TOPIC INFORMATION

PERIODS	TOPIC INFORMATION

6

Introduction to CAD
a) terminology
b) what is "Autocad"?
c) what can it do?
d) system specifications
e) overview - history
f) micro technology
g) getting started
h) operating systems

3

Basic Commands
Utility Commands:
    a - help
    b - end
    c - Quit
    d - save
    e - end save
    f - save
    g - limits
    h - units
    i - files
    j - menu
    k - rename
    l - purge

3

Graphic Primitives:
    a) line
    b) Pline
    c) circle
    d) arc
    e) trace
    f) methods of pointing
    g) snap
    h) grid
    i) ortho

3

Editing Commands:
    a) edit
    b) erase
    c) break
    d) move and copy
    e) arrays
    f) mirror imaging

3   **Display**
- a) Zoom
- b) pan
- c) redraw
- d) regen
- e) fill

3   **Layers Colours & Linetypes**
- a) basic concepts
- b) creating new layers
- c) set colour
- d) set linetype
- e) turning layers on and off
- f) scanning the library

3   **Blocks**
- a) creating block symbols
- b) inserting blocks
- c) w block
- d) custom block libraries

3   **Errors**
- a) flip screen
- b) status line
- c) what to do about errors
- d) absolute coordinates
- e) relative coordinates
- f) scale
- g) units

3   **Special Features**
- a) function keys
- b) manual and auto dimensioning
- c) dimension utility commands

3   **Plotting**
- a) plotting to printer
- b) plotting to plotter
- c) plot specifications

3   **New Revised Autocad Features**
- a) poly line
- b) shell command
- c) elevation
- d) view and v point
- e) changing the axis

9   **Major Hands On Drawing Projects**