

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY
SAULT STE. MARIE, ON.

COURSE OUTLINE

COURSE TITLE: Introduction to Autocad
COURSE CODE: CAD 120
PROGRAM: Architectural Technology
SEMESTER: II (Winter)
AUTHOR: B. Sparrow
DATE: January 6, 1992
PREVIOUSLY DATED: *none*

APPROVED: _____

A. B. Gray
(DEAN)

DATE: _____

93-01-07

3 HOURS PER WEEK

PREREQUISITES

NONE

I. PHILOSOPHY AND GOALS

This course will introduce the student to the fundamentals of computer assisted drafting using Autocad. Practical exercises will help the student develop a basic knowledge of Autocad. The student will understand the fundamental concepts of computer applications related to Architectural drafting.

II. STUDENT PERFORMANCE OBJECTIVES

Upon successful completion of this course, the student will be able to:

1. Identify the micro-computer components comprising a CAD system.
 2. Initiate the Autocad program and set up a new drawing.
 3. Utilize the drawing and drawing aids commands.
 4. Save a drawing onto a floppy disk and understand and use the help commands.
 5. Use Autocad to draw lines, use basic and advanced editing commands and draw basic shapes.
 6. Understand and use OSNAP commands, display options, various text commands, dimensioning, and layers.
 7. Plot a drawing to a printer and to a plotter.
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III. TOPICS TO BE COVERED

1. Equipment, Lab Procedures, Planning and Management
2. Starting Autocad
3. Drawing Set-up
4. Drawing and Drawing Aids
5. Saving Work and Getting Help
6. Drawing and Erasing Lines
7. Basic Editing Commands
8. Advanced Editing Commands
9. Drawing Basic Shapes
10. Drawing Tools
11. Display Options
12. Text Options
13. Dimensioning

- 14. Layers
- 15. Printing and Plotting

IV. LEARNING ACTIVITIES**REQUIRED RESOURCES****1.0 INTRODUCTION**

Upon successful completion of this unit, the student will be able to:

- 1.1 Identify computer equipment
- 1.2 Understand computer lab methods and procedures
- 1.3 Understand drawing planning procedures and system management
- 1.4 Know and follow the rules of hygiene in computer labs

Autocad and Its Applications
Chapter 1

2.0 STARTING AUTOCAD

- 2.1 Define MS-DOS
- 2.2 Start the Autocad program
- 2.3 Understand the screen layout and menu structure
- 2.4 Identify and operate input devices
- 2.5 Format a floppy disk

Autocad and Its Applications
Chapter 2

2 - 3.5" high density
diskettes

3.0 DRAWING SET-UP

- 3.1 Use the main menu
- 3.2 Begin a new drawing
- 3.3 Set limits and units

Autocad and Its Applications
Chapter 3

4.0 DRAWING AND DRAWING AIDS

4.1 Set grid and snap

Autocad and Its Applications
Chapter 4

4.2 Use axis command

4.3 Use ortho command

4.4 Access drawings aids
through settings menu

4.5 Use the line command

5.0 SAVING AND GETTING HELP5.1 Use the save, end and
quit commandsAutocad and Its Applications
Chapter 5

5.2 Use the help command

5.3 Use the cancel command

5.4 Use the status command

6.0 DRAWING AND ERASING LINES6.1 Define absolute, relative
and polar coordinatesAutocad and Its Applications
Chapter 66.2 Utilize ortho mode and
turn on coordinate display6.3 Distinguish and use line
and pline commands6.4 Use the erase, fill and
redraw commands**7.0 BASIC EDITING COMMANDS**7.1 Use the move and copy,
and multiple copy commandsAutocad and Its Applications
Chapter 11

7.2 Use the mirror command

7.3 Use the chamfer and
fillet commands

8.0 ADVANCED EDIT COMMANDS

8.1 Use the rotate and scale commands

Autocad and Its Applications
Chapter 12

8.2 Use the trim, extend and break commands.

8.3 Use the stretch and change command

9.0 DRAWING BASIC SHAPES

9.1 Identify dragmode

Autocad and Its Applications
Chapter 7

9.2 Draw arcs and circles

9.3 Use the @ symbol function

9.4 Use the polygon and multiple commands

10.0 OBJECT SNAP AND GEOMETRIC CONSTRUCTION

10.1 Use the OSNAP commands

Autocad and Its Applications
Chapter 8

10.2 Use the override function

10.3 Using offset and other drawing tools

11.0 DISPLAY OPTIONS

11.1 Use zoom commands-previous, window

Autocad and Its Applications
Chapter 9

11.2 Use zoom all, extents and previous

11.3 Use the zoom dynamic command

12.0 TEXT

12.1 Distinguish and use DTEXT and QTEXT

Autocad and Its Applications
Chapter 10

12.2 Use style and underscore commands

12.3 Use special symbols and pull down menus to create and edit text

13.0 DIMENSIONING

13.1 Place horizontal and vertical dimension on a drawing

Autocad and Its Applications
Chapter 18

13.2 Use the continuous dimensioning function

13.3 Use the base and leader line functions

14.0 LAYERS

14.1 Understand and use the layer command

Autocad and Its Applications
Chapter 17

14.2 Assign layer names, linetypes and colour by layer

14.3 Turn layers on and off

14.4 Use the freeze/thaw commands

15.0 PRINTING AND PLOTTING

15.1 Plot to a printer

Autocad and Its Applications
Chapter 27

15.2 Plot to plotting device

V. METHOD OF EVALUATION

Students will be assigned a final grade based on successful completion of tests and assignments.

Assignments	(6-8)	70%
Tests	(3-4)	30%
TOTAL		100%

Late assignments will be penalized. Attendance is mandatory and absenteeism will not be tolerated.

A final grade will be assigned as follows:

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

VI. REQUIRED STUDENT RESOURCESAutocad and its Applications

Terence M. Shumaker

David A. Madsen

The Goodheart-Wilcox Company Inc.

1992

The student should also have a minimum of two 3.5" high density floppy disks, for saving work and submitting assignments. The larger format 5.25" diskettes may also be used.

VII. ADDITIONAL RESOURCES AND MATERIALS

In addition to the course text, there are numerous books available in the Library related to Autocad or more generally to CAD.

VIII. SPECIAL NEEDS

Students with special needs are encouraged to discuss required accommodations in confidence with the instructor.

The instructor reserves the right to modify the course and course outline as deemed necessary to meet the needs of the students.