

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: APPLIED CAD III

CODE NO.: CAD232 - 3

SEMESTER: 4

PROGRAM: ARCHITECTURAL

AUTHOR: MEL URSELL

DATE: JANUARY 1991

PREVIOUS OUTLINE DATED:

APPROVED:

L.P. Crockett  
DEAN

9/01/25

DATE

APPLIED CAD III

CAD232-3

---

COURSE NAME

---

CODE NO.

TOTAL CREDIT HOURS: 45 Hours

PREREQUISITE(S): CAD120-3 & CAD 222-3

**I. PHILOSOPHY/GOALS:**

To apply "Autocad" fundamentals learned in CAD120-3 "Introduction to CAD".

To apply advanced techniques such as customization learned in CAD222-3.

To learn and apply CAD principles to Architectural drawings utilizing third party software such as ASG, Autoshade & Autoflix.

**II. METHOD OF ASSESSMENT (GRADING METHOD)**

The students final semester grade will be based on:

20% attendance and participation

30% formal tests and

50% assignmentss and Architectural Application

**III. TEXTBOOKS**

Autocad and Its Applications - by Terence M. Shumaker/  
David A. Madsun

**IV. REFERENCES**

Inside Autocad - by Raker & Rice

Advanced Techniques in Autocad by M. Thomas

ASG Core & ASG (Architectural) reference mannuals.

PERIODS

TOPIC INFORMATION

6

UNIT #1 REVIEW OF THE 3-D LEVEL

- a) Isometric drawing
  - the isoplane
  - aspect
- b) User coordinate system
  - system variables
- c) Point filters.
- d) 3-D line
- e) 3-D face
- f) 3-D icons
- g) 3-D modeling basics
  - viewports
  - vcsicon
- h) Viewing 3-D models
- i) Drawing problems

6

UNIT #2 INTRODUCTION TO AUTOSHADE

- a) Creating an Autoshade scene
- b) Opening files and scenes
- c) Plan and wire frame views
- d) Creating shaded renderings
- e) Manipulating the variables
- f) Drawing problems

3

UNIT #3 ASG (ARCHITECTURAL)

CORE UTILITIES

- a) ASG INTERFACE
  - menus
  - help
- b) Beginning a drawing
  - Setting up the drawing environment
- c) Autoload
  - load ASG Architectural
- d) Architectural pulldowns
  - Architec
  - Settings and Toggles
  - Tools
- e) Settings and Toggles
  - Status
  - File of setting and toggle values
- f) Layering information
  - Autolayer

6

UNIT #4 SPACE DIAGRAMS

- a) Introduction
  - Review settings and toggles
- b) Space Diagrams
  - Width X Depth
  - Area X Width
  - Dynamic
  - Custom
- c) Space to walls
- d) Continuous Walls
  - Settings and toggles
  - Continuous wall with offset
  - Intersection cleanup
- e) I, L and U Walls
  - Settings and toggles
  - Intersection cleanup
- f) Wall Hatching
- g) Custom Walls
  - Draw curved wall
  - Autopoint
  - End caps

3

UNIT #5 STRUCTURAL GRIDS

- a) Structural grid
  - Overview of grid types
  - Dimension offsets
  - Modify text height
  - Structural grid for snap
  - Insert column symbol
  - Array column

6

UNIT #6 DOORS & WINDOWS

- a) Doors and windows
  - Introduction
- b) Settings and toggles
  - Fastdoor
  - Change swing
  - 2D/3D symbols
- c) Doors
  - Insertion point
  - OSNAP override
- d) Windows
  - Insert
  - Array
- e) Tools
  - Install windows
  - Change door swing
  - Offset
- f) Storefront

3

UNIT #7 ELEVATIONS & SECTIONS

- a) Elevations/sections
  - Introduction
  - Front elevation
  - Add detail to elevation
  - Window
  - Door
  - Roof(hatch pattern)
- b) Draft section

UNIT #8 DIMENSIONING & ANNOTATIONS

- a) Dimensions/annotations
  - Introduction
  - Freeze layers
  - Scale factor of notations
- b) Dimensioning
  - Horizontal
  - Vertical
- c) Annotations
  - Text in
  - Text editor
- d) Tags
  - Box for notes
  - Alphabetic notes
  - Alpha tags
  - Elevation tags
  - Section line
  - Drawing title
  - Editing tags

6

UNIT #9 SYMBOLS

- a) Symbols
  - Introduction
- b) Symbol insertion
  - Settings and toggles
  - Furniture
  - Parking stalls
  - Plumbing fixtures
- c) Attributes
  - Settings and toggles
  - Insert symbol with attributes
  - Attribute defaults
- d) Schedules
  - Attribute extraction
  - Schedule
  - Build
- e) Converting 2D to 3D/3D to 2D

