

**PALOMAR COLLEGE**  
**COURSE OUTLINE OF RECORD FOR**  
**DEGREE CREDIT COURSE**

X Transfer Course X A.A. Degree applicable course  
(check all that apply)

**COURSE NUMBER AND TITLE:** ID 151 Advanced Computer Aided Drafting For Designers

**UNIT VALUE:** 3

**MINIMUM NUMBER OF SEMESTER HOURS:** 96

**BASIC SKILLS REQUIREMENTS:**

Appropriate language and computational skills.

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** None.

**COREQUISITE:** None.

**RECOMMENDED PREPARATION:** None.

**SCOPE OF COURSE:**

Advanced applications and topics include prototype drawings, blocks and creating specific libraries, isometric illustration, presentation slide shows, basic and advanced 3-D, and external references. Meets the current needs of the professional working designer.

**SPECIFIC COURSE OBJECTIVES:**

Successful students will:

1. create prototype drawings;
2. manipulate blocks, specific libraries and attribute definitions for design specification;
3. apply the principles of advance rendering techniques;
4. utilize presentation slide shows;
5. create menus to customize task oriented CAD work stations for specific design applications; and
6. develop design drawings with advanced 3-D, solids and surfaces for realistic presentation imaging.

## **CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. Prototype Drawings
  - A. Evaluate architectural drawing requirements
    - 1. units, grid and scale
    - 2. commercial, residential, section, elevation, plan and subcontractor classification detail drawings
  - B. Create Professional Quality Working Drawings
    - 1. incorporate logo and titleblock application
    - 2. include type specific legend and schedule
- II. Blocks
  - A. Standardized Element Libraries
    - 1. create attribute database: manufactures' catalog numbers, price, and identification codes
    - 2. bid and estimate procedures using attribute definitions and area calculations
- III. Isometric and Illustrations
  - A. Principles of isoplane projection
  - B. Shading techniques
- IV. 3-D and Perspective Drawings
  - A. User coordinate systems
  - B. Solids
  - C. Primitives
  - D. Visualization
- V. Presentations
  - A. Slide shows
  - B. Rendering techniques
- VI. Introduction to Customizing and Programming
  - A. AutoLisp
  - B. Custom Menus
- VII. Introduction to Paper Space and Model Space
  - A. Tilemode
  - B. Dimensioning
  - C. Plotting
- VIII. Networking Group Projects
  - A. Coordinate profession specific drawings
  - B. Integrate total set of working drawings
- IX. Lights and Camera Techniques
  - A. Rapid conceptual presentations
  - B. Spotlighting key elements
  - C. Rendering

## **REQUIRED READING:**

Elise Moss. Architectural Desktop 2004 Fundamentals. Kansas: SDC Publication. 2003.

## **SUGGESTED READING:**

Aubin, P. AutoDesk Architectural Desktop, An Advance Implementation Guide. New York: AutoDesk Press, 2003.

**REQUIRED WRITING:**

One page evaluative report on each field trips.

**OUTSIDE ASSIGNMENTS:**

**Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.**

Students will read appropriate chapters in text prior to class. Written evaluations of field trips.

**INSTRUCTIONAL METHODOLOGY:**

**Check all that apply:**

- lecture
- laboratory
- lecture-laboratory combination
- directed study

**DISTANCE LEARNING:**

**This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.**

Yes  No

**If yes, check all that apply:**

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

**GRADING POLICY AND STANDARDS** (include methods of determining whether the stated objectives have been met by students):

|                                   |     |
|-----------------------------------|-----|
| Workbook Drawing                  | 45% |
| Extra Drawings                    | 15% |
| Written Evaluation of Field Trips | 15% |
| Final                             | 25% |

**IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?**

Yes  No  Number of times course may be taken for credit: \_\_\_\_\_

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

**CONTACT PERSON :** Lori Graham, ext: 2210

**SIGNATURES ON FILE:**

**By signing this form, I certify that this course outline of record meets all the minimum requirements for associate degree credit courses as specified in Title 5 Section 55002.**

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| <b>SIGNATURES ON FILE:</b> |
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