ID A130: DESIGN COMMUNICATION 2: CAD 2D

Item	Value
Curriculum Committee Approval Date	02/28/2018
Top Code	130200 - Interior Design and Merchandising
Units	3 Total Units
Hours	90 Total Hours (Lecture Hours 36; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

This course introduces Computer Aided Drafting (CAD) as used to produce 2-dimensional design drawings. PCs with Autodesk Architecture or other Industry standard software will be used and instruction will focus on computer drawing a simple project to include the following drawing types: floor plan, site plan, elevations, and enlarged section/details. Students should have basic knowledge of computer operation and file management. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Draw and print a basic design project using CAD software at a level considered entry-level professional quality, as evaluated by the instructor.

Course Objectives

- 1. Set up a new file and construct title block.
- 2. Manage layers to control multiple drawings and with different print scales.
- 3. Operate a CAD program well enough to perform the following basic drawings: floor plan, site plan, elevations, enlarged section/details.
- 4. Plot using model space and paper space and multiple scales.
- 5. Control textures and hatches to represent materials.
- 6. Print and collate a small set of drawings.

Lecture Content

1. Floor Plana. Starting a new file, title blocks, textb. Basic drawing components: Wall, door windowc. Vector navigation and dimensional controld. Editing objectse. Dimensioningf. Symbols and schedules2. CAD Conceptsa. Model Spaceb. Zoomc. Layersd. Parametrics: editing componentse. Paper Space Plotting3. Electrical/Lighting Plana. Reflected Ceiling Planb. Power Communication Symbolsc. Legends4. Elevationsa. View generation, export viewsb. Ground linesc. Walls, doors, windowd. Roof, overhangse. Materialsf. Graphics: Textures, line weights5. Enlarged Sections and Detailsa. View generationb. Construction elements call outsc. Scale and texturesd. Symbols: notes, cut linese. Line weights6. Plottinga. Printing, properly sizing annotations on printed drawings. b. Saving drawings to other formats.c. Plotting to PDF, plotting to Design Web Format, and emailing drawings. 7. Alternative Drawings and Techniques:a. Create a Title Block/Template Drawingb. Building Sectionc. Understanding external references.d. Controlling the appearance of referenced drawings.e. Inserting, editing, clipping and scaling images.

Lab Content

Practical application of course content including: 1. Floor Plan drawingsa. Starting a new file, title blocks, textb. Basic drawing components: Wall, door windowc. Vector navigation and dimensional controld. Editing objectse. Dimensioningf. Symbols and schedulesg. Graphics: Textures/hatches, north arrow, scale bar2. Elevationsa. View generation, export viewsb. Ground linesc. Walls, doors, window3. Graphics: a. Textures b. Graphic Standards - Line weightsc. Layers and Layer Standards 4. Enlarged Sections and Detailsa. Section Viewsb. Dimension Scalec. Linetype Scale 5. Plottinga. Printing, properly sizing annotations on printed drawings. b. Saving drawings to other formats.c. Plotting to PDF, plotting to Design Web Format, and emailing drawings. 6. Alternative Drawings and Techniques:a. Create a Title Block/Template Drawingb. Building Sectionc. Understanding external references.d. Controlling the appearance of referenced drawings.e. Inserting, editing, clipping and scaling images.d. Building Section

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)
- Lab (04)
- DE Online Lab (04X)

Instructional Techniques

Lecture and in-class drawing assignments, quizzes, individual and small group activities and instruction.

Reading Assignments

Assigned reading from texts/handouts (week 1-15) 1-2 hours per week.

Writing Assignments

Writing for this course only includes minor notations and short professional descriptors. Critical thinking is reinforced in the act of cross-referencing and coordinating this set of drawings. (week 1-16) 1 hour per week.

Out-of-class Assignments

Research and additional lab time to complete assignments as required.   (week 1-16) 1-2 hours per week.

Demonstration of Critical Thinking

Instructor-graded assignments, quizzes and final grading of drawing project package.

Required Writing, Problem Solving, Skills Demonstration

Writing for this course only includes minor notations and short professional descriptors. Critical thinking is reinforced in the act of cross-referencing and coordinating this set of drawings.

Eligible Disciplines

Interior design: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Muccio, Dean. AutoCAD 2015 for the Interior Designer, current ed. Kansas: SDC Publications, 2014

Other Resources

1. Instructor handouts and current software reference book as recommended by instructor.