ARCH A205: ARCHITECTURAL DRAWING AND DESIGN VISUALIZATION 2

Item	Value
Curriculum Committee Approval Date	12/04/2024
Top Code	020100 - Architecture and Architectural Technology
Units	3 Total Units
Hours	108 Total Hours (Lecture Hours 27; Lab Hours 81)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• Area 3 Arts and Humanities 3A Theory (OC1)
Associate Science Local General Education (GE)	• Area 3A Arts (OSC1)

Course Description

A continuation of ARCH A105, this advanced studio builds on a basic understanding of design communication, strengthening complexity and design intention in two and three-dimensional visualization techniques; including freehand sketching, graphic conventions, modeling, perspective and orthographic drawings, shade/shadow, color rendering, graphic presentations, and portfolio development. PREREQUISITE: ARCH A105. Transfer Credit: CSU; UC.

Course Level Student Learning Outcome(s)

1. Demonstrate a variety of drawing types, use a variety of drawing tools and techniques, and edit and compose selected images to effectively communicate a design project graphically, as assessed by the instructor and with input from informal juried critiques.
2. Produce a graphic portfolio that documents their design communication skills in a format that is appropriate for academic and professional portfolio advancement, as assessed by the instructor.

Course Objectives

- 1. Elevate the graphic abilities beyond the basic skills learned in Architecture A105.
- 2. Demonstrate the ability to see critically as evidenced in sketches and images produced.
- 3. Draw line and tonal drawings.
- 4. Demonstrate drawing knowledge of foreground, middleground, background, and figure ground.
- 5. Utilize line weights and tone to convey 3-D space and form in 2-D media.
- 6. Draw a rendered plan, elevation, and section (with appropriate tone, texture, and shade/shadow).
- 7. Represent a design three dimensionally using modeling techniques.
- 8. Draw a rendered perspective.
- 9. Demonstrate a selection of color rendering techniques in exercises and design images.
- 10. Evaluate and select different graphic and modeling techniques and apply them based on various design communication challenges.
- 11. Integrate conventional and digital techniques using scanning and reprographic techniques.
- 12. Demonstrate use of selective imagery to communicate a project with limited time constraints.
- 13. Combine images and text to create powerful, persuasive presentations and portfolio work.

Lecture Content

This course is intended to provide the visual communications skills needed to describe architecture and participate in the design communication process. It is project-based with projects to be selected by the instructor in order to build student range of expression, while focusing on advanced visualization techniques as outlined below: Drawing and Seeing Line and shape Contrast and figure ground Tone and texture Light and modeling Formal Drawing Concepts Form and profile/outline Analytical/geometric sketching Proportion Additive/subtractive drawing Spatial Drawing Concepts Space and profile/outline Planer changes and overlap Atmospheric perspective and blur Shade and shadow Graphic Techniques Figure ground Foreground, middleground, background Hierarchy of line weights Tone and Texture, Poche Entourage Orthographic Projection Plans Elevations Sections 3-D Modeling Physical model building techniques materials Digital modeling Digital imagery of physical models 2-D representation of 3-D models 3-D Drawings Perspective techniques: hand digital Overdrawing of digital models Tonal rendering Composition and foreground, middleground, background Creative/analytic Design Process Diagramming, analytic drawing Graphic symbols Process sketchbook: thinking and drawing Parti models and sketches Movement and composition studies Color Color wheel, hues Color schemes: analogous, complementary, triadic, neutral Intensity, value Blending and color theory Color Rendering Techniques Conventional reflective color media: pencils, markers, paint Digitally projected color media: pixels/bitmapping, printers, print media Layering, contrast, and saturation Sampling and experimentation with different media (including Adobe Creative Suite) Design Communication Presentation Selecting appropriate drawing and modeling techniques Matching the design intent with the most effective representational device Considering time and budgetary constraints Mixing conventional and digital techniques Scanning and reprographics Design Communication with Impact Bold, powerful graphic techniques Persuasive Imagery Combining image and text Orientation and logic

Lab Content

Lab will consist of demonstrations and exercises: Formal Drawing Concepts Spatial Drawing Concepts Graphic Techniques Orthographic Projection 3-D Modeling 3-D Drawings Color Rendering TechniquesDesign Communication Presentation

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

- Lab (04)
- DE Live Online Lab (04S)
- DE Online Lab (04X)

Instructional Techniques

Methodologies are consistent with the professional design process and university architectural studio courses, which include lecture and demonstration of various design communication techniques; instructor and student feedback on drawing and modeling techniques; evaluation of sketchbook; and student oral and visual presentation of work which includes feedback and suggestions for presentation improvements.

Reading Assignments

Weekly reading and worksheet assignments taken from the sourse textbooks 1. Ching, Francis D. K.. Architectural Graphics, ed. New York: John Wiley Sons, Inc. , current ed. 2. Yee, Rendow. Architectural Drawing, ed. New York: John Wiley Sons, Inc. , current ed.

Writing Assignments

Critical thinking skills will primarily be demonstrated through the drawing and modeling of architectural solutions and the decisions on which techniques to utilize to communicate a concept. Some minor writing will occur in the form of graphical text on visual presentations (such as presentations, portfolios, and digital media presentations) and in the sketchbook that students will keep to document drawing techniques and practice.

Out-of-class Assignments

Weekly drawing and/or architectural modeling assignments that build on the lecture and weekly reading.

Demonstration of Critical Thinking

Graded evaluation and verbal critique of drawings, models, design process, concept communication, project presentation, and portfolio by instructor. Student participation in studio activities, positive contributions to the studio learning environment and professional commitment will be assessed by the instructor.

Required Writing, Problem Solving, Skills Demonstration

Critical thinking skills will primarily be demonstrated through the drawing and modeling of architectural solutions and the decisions on which techniques to utilize to communicate a concept. Some minor writing will occur in the form of graphical text on visual presentations (such as presentations, portfolios, and digital media presentations) and in the sketchbook that students will keep to document drawing techniques and practice.

Eligible Disciplines

Architecture: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Ching, Francis D. K.. Architectural Graphics, ed. New York: John Wiley Sons, Inc. , 2015 Rationale: Excellent architectural graphics reference that was updated in 2015 2. Required Yee, Rendow. Architectural Drawing, ed. New York: John Wiley Sons, Inc. , 2012 Rationale: or latest edition