ARCH A106: ACCESSORY DWELLING UNIT DESIGN

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	020100 - Architecture and Architectural Technology
Units	1 Total Units
Hours	36 Total Hours (Lecture Hours 9; Lab Hours 27)
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

Accessory Dwelling Unit (ADU) Design is a 5 week seminar course that introduces design concepts, codes, budgeting, and permit strategies unique to ADUs. ADUs are typically small second units added to existing single family home properties and allowable sizes and limitations vary by city and lot size. Students will plan out their own project and are encouraged to bring ideas and questions. A field visit to experience an ADU or similar sized structure will be organized as available. No prior experience needed. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Students will design and present an Accessory Dwelling Unit concept that demonstrates knowledge learned about ADUs including design, building systems, and materials.
2. Students will demonstrate a new or enhanced professional ability to propose an Accessory Dwelling Unit solution that incorporates knowledge of budgeting, construction options, and the permit process.

Course Objectives

- 1. Demonstrate the basic planning, codes, and design considerations needed to design an Accessory Dwelling Unit.
- 2. Understand the advantages and disadvantages of framing choices, materials, and systems that are available for Accessory Dwelling Units.
- 3. Calculate a preliminary budget and permit fees for an Accessory Dwelling Unit.
- 4. Develop and share an Accessory Dwelling Unit design concept.
- 5. Demonstrate a basic knowledge of different construction trades and skills needed to construct an Accessory Dwelling Unit.

Lecture Content

Background and History Intentions Design types and sizes Manufactured, pre-fab and site-built Codes and certifications City planning and zoning Design and 3D Visualization Framing Doors and windows Materials Furnishings Systems and Sustainability Insulation and weatherproofing Energy generation Electrical Plumbing Heating, cooling, ventilation Budgeting and cost estimating Excel, template Rough estimating Material take offs Permit fees Special Topics Special populations and needs Style and neighborhood context Steel frame, panel systems Case study

Lab Content

Demonstrations, site tours Framing, Construction Yard Steel frame production, FrameCAD Visit or video tour of an ADU or similar structure Physical or online tour of a city planning building department Review final project - Discuss assess

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

Instructional methods will include: lecture, demonstrations, class discussions, video demonstrations, tour of facilities and projects on-site as available, and student presentations.

Reading Assignments

Review codes and reference materials Read hand outs provided

Writing Assignments

Student will summarize and collect data into reference documents and folders. Students will write their design concept and intentions into a project statement.

Out-of-class Assignments

Out of class readings, assignments, and written work will total approximately 6 to 10 hours per week (or about 40 hours total). Students will design, draw, and model their project. Students will research materials, costs, and prepare cost estimate using a spreadsheet. Students will research systems and collect reference data and city-specific permit information.

Demonstration of Critical Thinking

Critical thinking will be engaged in the process of designing a personal project that demonstrates considerations and decision making for Accessory Dwelling Unit design.

Required Writing, Problem Solving, Skills Demonstration

Students will produce a project notebook or file folder that contains a design proposal, design research, and collected reference material.

Eligible Disciplines

Architecture: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Architecture: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Construction technology: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Chin, Ron. How to Build an In-Law Unit in California: Your Essential Guide, Current ed. Inspire Press, 2020

Other Resources

1. California State Building Codes - free public access 2. Reference hand outs prepared by instructor