



South Central College

ARCH 1101 Studio 1

Common Course Outline

Course Information

Description An introductory studio course developing a set of working drawings for a residential construction project. Course topics include the history of drafting, drafting views, basic drafting techniques, measuring, residential terminology, basic document production and best practices. Emphasis on document production for wood-frame construction and the application of Computer Aided Drafting (CAD) software into the design process. This course advances to explore multi-family construction concepts, design considerations and code implications. An examination of the coordination and drafting of civil engineering information for residential design is included. (Prerequisites: None)

Total Credits 4

Total Hours 96

Types of Instruction

Instruction Type	Credits/Hours
Lecture	2/32
Lab	2/64

Pre/Corequisites

None

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Outcomes

1. Understand the definition of design.

Learning Objectives

Discuss the history of design and review architectural design periods.
Introduce the principles and elements of design.
Compare and contrast building design.

2. Introduce drafting tools and techniques.

Learning Objectives

Explore the history of drafting in design.

Introduce drafting tools and media types/sizes.
Discuss using various line types and line weights.
Measure and draw using an architectural scale.
Introduce graphics that represent various construction materials.

3. Demonstrate an understanding of drawing/sketching principles.

Learning Objectives

Recognize and analyze architectural views.
Recognize and analyze isometric sketches.
Recognize and analyze orthographic sketches.
Sketch plans, elevations, and details.

4. Demonstrate an understanding of residential construction.

Learning Objectives

Identify residential construction materials & methods.
Explore building styles used in residential construction.
Identify various terminology used in residential construction.

5. Coordinate a set of residential construction documents.

Learning Objectives

Define the method of residential construction used in the project.
Research and incorporate industry standard graphics.
Introduce applicable building codes as they pertain to the project.
Identify information necessary for the coordination of residential working drawings.

6. Produce residential construction drawings.

Learning Objectives

Draft a foundation plan.
Draft a floorplan.
Draft exterior elevations.
Draft a roof plan.
Import wall detail.
Draw notes, annotation, symbols, and dimensions required for complete project information.

7. Demonstrate an understanding of space planning applications.

Learning Objectives

Develop bubble diagrams.
Manage space using walls, partitions, ceilings, and room layout.
Analyze space function and relation to other spaces.

8. Implement Computer Aided Drafting (CAD) software.

Learning Objectives

Apply basic draw and modify commands.
Apply basic architectural tools.
Apply basic annotation tools.
Produce accurate output for construction drawings.
Utilize project management skills.

9. Prepare a residential site plan.

Learning Objectives

Analyze civil engineering information for a residential subdivision.
Analyze state and local building code as it pertains to residential construction.
Coordinate civil engineering and code information with proposed building footprint.
Draft an architectural site plan for a residential construction project.

10. Explore multi-family residential construction.

Learning Objectives

Analyze the design implications of multi-family construction.

Analyze state and local building code as it pertains to multi-family construction.
Draft an architectural floor plan for a residential multi-family project.
Draft a common wall detail for a residential multi-family project.

11. Implement of electronic software for drawing coordination.

Learning Objectives

Explore CAD file sharing features.
Discuss industry process to keep record of communication amongst team members for projects in-progress.
Utilize industry software to securely publish project information.

12. Introduce time management skills.

Learning Objectives

Cultivate self-starting and resourcefulness.
Demonstrate organizational skills.
Learn to prioritize tasks to manage workload.
Develop alternative study practices to maintain focus.

13. Introduce professional workplace practices.

Learning Objectives

Ability to integrate various technologies.
Proficient in computer software and peripherals.
Demonstrate acceptable participation and attendance.

SCC Accessibility Statement

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

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