South Central College

BDET 1110  Studio I

Course Outcome Summary

Course Information

Description
This is an introductory studio course for students interested in Building Design and Energy Technology. Studio I includes a combination of sketching and electronic drawing software applications. This course will cover, sketching techniques, dimensions, notations, organization, & measuring. This class advances into drawing a commercial wood-frame construction project while incorporating electronic drawing software into the design process. (Prerequisites: None)

Total Credits 4
Total Hours 96

Types of Instruction

Instruction Type Credits/Hours
Lecture
On-Campus Lab

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 Competencies

1. Understand the definition of design.
   Learning Objectives
   Research the history of design.
   Compare and contrast different architectural design periods.
   Compare and contrast building design.

2. Understand the use of principles and elements of design.
   Learning Objectives
   Define types of media used.
Define the various sizes of media used.
Describe the drafting tools.
Demonstrate proper use of drafting tools.

3. **Draw using correct line types and weights.**
   Learning Objectives
   - Create linework that has various line types.
   - Create linework that has various lineweights.
   - Define the "Alphabets of Lines".
   - Draft using the "Alphabets of Lines".

4. **Create sketches based on specific criteria.**
   Learning Objectives
   - Create orthographic sketches.
   - Create isometric sketches.
   - Sketch on various types of media.
   - Sketch to specific scales.

5. **Demonstrate an understanding of the criteria that defines the building envelope.**
   Learning Objectives
   - Demonstrate the location of a building envelope.
   - Describe the use of different types of insulation.
   - Sketch various wall design assemblies.
   - Demonstrate foundation design.
   - Demonstrate the understanding of roof design.
   - Understand habitable and non-habitual spaces.

6. **Draw architectural-style lettering, leaders, and dimensions.**
   Learning Objectives
   - Draft hand lettered single-stroke Gothic lettering.
   - Draft hand lettered architectural specific dimensions.
   - Draw hand lettered architectural specific leaders.

7. **Demonstrate an understanding of drawing/sketching principles to help solve problems.**
   Learning Objectives
   - Sketch details.
   - Incorporate line division.
   - Sketch using proportions.

8. **Demonstrate the understanding of as-built drawings.**
   Learning Objectives
   - Describe the process of completing existing drawings
   - Demonstrate sketching layout of existing conditions.
   - Understand the building components to be included on as-built drawings
   - Understand the unit of measure.

9. **Demonstrate an understanding of symbols that represent various commercial construction materials.**
   Learning Objectives
   - Demonstrate architectural symbol knowledge in plan view.
   - Draw material hatching in section views.
   - Label materials in section views.
   - Use callouts for plan coordination.

10. **Construct building design working drawings.**
    Learning Objectives
    - Define architectural working drawings.
    - Prepare floorplans.
Draft elevations.
Draw sections.

11. **Coordinate a set of commercial working drawings.**

   **Learning Objectives**
   - Identify what information is necessary for coordination of architectural working drawings.
   - Establish drawing standards.
   - Prepare drawings incorporating callouts.

12. **Acquire an understanding of architectural, MEP and structural drawings and construction methods.**

   **Learning Objectives**
   - Draw a foundation plan. (Project Specific)
   - Draw a floor plan. (Project Specific)
   - Draw elevations. (Project Specific)
   - Draw sections and details. (Project Specific)
   - Define the different methods of construction used in residential construction.
   - Provide a set of coordinated working drawings. (Project Specific)

**SCC Accessibility Statement**

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