INTD-1130: ARCHITECTURAL DRAFTING FOR INTERIORS II

Cuyahoga Community College

Viewing: INTD-1130 : Architectural Drafting for Interiors II

Board of Trustees:

January 2024

Academic Term:

Fall 2024

Subject Code

INTD - Interior Design

Course Number:

1130

Title:

Architectural Drafting for Interiors II

Catalog Description:

Introduction to REVIT software and building information modeling for commercial structures. Learn and apply basic REVIT commands to develop plans, sections, exterior and interior elevations, details and perspectives for the purpose of design, documentation and presentation.

Credit Hour(s):

3

Lecture Hour(s):

1

Lab Hour(s):

4

Requisites

Prerequisite and Corequisite

INTD-1120 Architectural Drafting for Interiors I, and MATH-1190 Algebraic and Quantitative Reasoning or any approved Ohio Transfer 36 Mathematics course; or department approval.

Outcomes

Course Outcome(s):

Utilize Revit tools and architectural standards to create construction documents.

Objective(s):

1. Use Revit software commands to generate all geometry and text for plan views, interior elevations, sections and details.
2. Explain the benefits and hardships of drafting three dimensionally.
3. Demonstrate use of basic tools and commands in the Revit ribbon and interface.
4. Set up Revit drawings with appropriately scaled text styles and dimension styles.
5. Demonstrate and explain use of Autodesk Seek to download families.
6. Demonstrate and describe the use of the properties browser and project browser.
7. Discuss the application of Revit as related to architectural drawings.
8. Open, begin a new drawing, plot, and save a drawing file.
9. Explain and effectively utilize the use of the design options feature.

Course Outcome(s):

Develop foundation on using BIM systems.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):
1. Use Revit software for building analysis such as lighting, HVAC, and energy efficiency.
2. Discuss the application of REVIT as related to architectural drawings.
3. Demonstrate and explain the use of the design options feature.

Methods of Evaluation:
1. Quizzes
2. Plotted midterm drawings
3. Plotted final drawings
4. Drawing assignments, worksheets and projects

Course Content Outline:
1. Introduction to the Revit system with an emphasis on interior design
    a. Graphics area screen display arrangement
    b. Menu breakdown and selections
    c. Dialog boxes, toolbars and palettes
2. Input device commands
    a. Mouse
    b. Keyboard
    c. Menus
    d. Icons
    e. Keyboard shortcuts - aliases
3. Introduction to Revit file commands
    a. Begin and name new files
    b. Create new drawing dialog box
    c. Save files
    d. Print individual sheets and plot full size drawing files and sets
    e. Open existing files
    f. Templates
    g. Close
    h. Exit
    i. Recover
    j. Backup files
4. Introduction to command ribbon (architecture)
    a. Build (wall, door, window, ceiling, component, floor, roof)
    b. Circulation
    c. Room and area
    d. Datum
    e. Work plane
    f. User interface
5. View display features
    a. Detail level (coarse, medium and fine)
    b. Visual style (hidden line, wireframe, shaded, etc.)
    c. Sun path and shadows
    d. Crop view and region
    e. 3D view
    f. Section tags, elevation tags, callout tags
    g. Visibility graphics
6. Basic operations
    a. Properties browser
    b. Project browser
    c. Edit type options
    d. Modify
        i. Move
        ii. Align

        iii. Offset
        iv. Mirror
        v. Trim
        vi. Array
        vii. Split
        viii. Rotate
        ix. Copy
- e. Geometry
- f. Measure
- g. Insert families
- h. Manage materials

7. Basic annotations
   a. Dimensions
   b. Revision clouds
   c. Region
   d. Components
   e. Tags (window, doors etc.)

8. Design options
   a. Furniture options
      i. Type
      ii. Materiality
   b. Roof options
      i. Type
      ii. Materiality

9. Inquiry
   a. Distance
   b. List
   c. Determine area, perimeter
   d. Measure

10. Proper format for interior drawings
    a. Sheet set – up and creation
    b. Paper size
    c. Display
    d. Title blocks
    e. Template files
    f. Scale of typical drawings
    g. Creating views

11. Internet tools
    a. Autodesk Seek
    b. Downloading families from the internet

12. Viewports
    a. Editing
    b. Scaling
    c. Use of proper terminology

13. Working in a diverse environment
    a. Effective verbal communication
    b. Effective email communication technique

14. Development of three dimensional model using Revit
    a. Walls
    b. Doors
    c. Windows
    d. Lighting
    e. Ceilings
    f. Dimensions
    g. Line weights
    h. Architectural symbols (north arrow, elevation tags and callouts)
    i. Furniture representation
    j. Room tags and room names

15. Creating building sections, wall sections and elevations using Revit
    a. Relationship to other views
    b. Dimensions and notations
    c. Section tag, callout tag, and elevation tag placement
16. Development of two–dimensional details using Revit
    a. Regions
    b. Detail lines
17. Development of schedules using Revit
    a. Flooring and finishes
    b. Doors
    c. Windows

Resources

Ching, Francis D.K., and Binggeli Corky. (2018) *Interior Design Illustrated*, Hoboken: Wiley & Sons.

Robert Yori, Marcus Kim , Lance Kirby . (2019) *Mastering Autodesk Revit Architecture 2020*, Indianapolis: Wiley & Sons.

Daniel John Stine. (2022) *Interior Design Using Autodesk Revit 2023*, SDC Publications.

Stine, Daniel John. (2022) *Commercial Design Using Autodesk Revit 2023*, Mission: SDC Publications.

Resources Other
1. REVIT software
2. Autodesk Help
3. Autodesk360

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