INTD-2815: SPECIAL TOPICS IN ADVANCED ARCHITECTURAL DRAFTING FOR INTERIORS

Cuyahoga Community College

Viewing: INTD-2815 : Special Topics in Advanced Architectural Drafting for Interiors

Academic Term:
Fall 2026

Subject Code
INTD - Interior Design

Course Number:
2815

Title:
Special Topics in Advanced Architectural Drafting for Interiors

Catalog Description:
Introduction of advanced skills in the computer software program AutoCAD, Revit, and Sketchup for the creative production of 2D and 3D documents and presentations for interior design.

Credit Hour(s):
3

Lecture Hour(s):
2

Lab Hour(s):
3

Requisites

Prerequisite and Corequisite
INTD 1120 Architectural Drafting for Interiors I, INTD 1130 Architectural Drafting for Interiors II, and INTD 2460 Interior Design Presentation or Department Approval

Outcomes

Course Outcome(s):
Apply advanced knowledge of the concepts and features of AutoCAD and Revit as related to 2-dimensional architectural drawings for interiors.

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.
Oral Communication: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.
Written Communication: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Objective(s):
1. Use appropriate industry vocabulary when communicating projects
2. Demonstrate knowledge of keyboard and icon commands
3. Design complex elevation drawings with custom woodwork and cabinetry
4. Develop a set of construction drawings for a residential or commercial building utilizing advanced skills

Course Outcome(s):

Create 3-dimensional architectural presentations utilizing Revit and Sketch Up demonstrating skills and mastery in material representation, lighting, color, and furniture rendering.

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.
Information Literacy: Demonstrate contextual awareness of the research process through the reflective discovery of the production and value of information, the use of information in the creation of new knowledge, and ethical participation in the use of information in communities of learning.
Quantitative Reasoning: Analyze problems, including real-world scenarios, through the application of mathematical and numerical concepts and skills, including the interpretation of data, tables, charts, or graphs.

Objective(s):

1. Demonstrate the ability to develop a 3-dimensional concept drawing that includes furniture, materials, people, and lighting
2. Utilize and demonstrate knowledge of keyboard and icon commands
3. Develop a project that can be translated and printed on a 3D printer

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Course Outcome(s):

Create 2D and 3D construction documents utilizing tools and features of industry software while adhering to architectural standards.

Essential Learning Outcome Mapping:

Oral Communication: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.
Information Literacy: Demonstrate contextual awareness of the research process through the reflective discovery of the production and value of information, the use of information in the creation of new knowledge, and ethical participation in the use of information in communities of learning.
Written Communication: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Objective(s):

1. Demonstrate knowledge of architectural standards of construction
2. Communicate codes and standards using industry definitions

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Methods of Evaluation:

Methods of Evaluation:

A. Quizzes

B. Plotted midterm drawings

C. Plotted final drawings

D. Drawing assignments, worksheets, and projects

Course Content Outline:

1. Mastery of the command ribbon (architecture)
    a. Build (wall, door, window, ceiling, component, floor, roof)
        i. Circulation
        ii. Room and area
        iii. Datum
        iv. Work plane
        v. User interface
2. 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
3. Advanced 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
4. Advanced annotations
   a. Dimensions
   b. Revision clouds
   c. Region
   d. Components
   e. Tags (window, doors, etc.)
5. Research and implement more design options
   a. Furniture options
      i. Type
      ii. Materiality
   b. Roof options
      i. Type
      ii. Materiality
6. Inquiry
   a. Distance
   b. List
   c. Determine area, perimeter
   d. Measure
7. Implement the proper format for interior drawings independently
   a. Sheet setup and creation
   b. Paper size
   c. Display
   d. Title blocks
   e. Template files
   f. Scale of typical drawings
   g. Creating views
8. Development of detailed three-dimensional models, including AI
      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
9. Creating highly detailed building sections, wall sections, and elevations

a. Relationship to other views
b. Dimensions and notations
c. Section tag, callout tag, and elevation tag placement

10. Development of two-dimensional details
    a. Regions
    b. Detail lines
11. Development of schedules
    a. Flooring and finishes
    b. Doors
    c. Windows

Religious Accommodation

Before reviewing the course schedule, students should carefully review the following religious accommodation policy and other required instructional policies:

Religious Accommodation:

Students seeking an accommodation for absences permitted under Ohio's Testing Your Faith Act must provide the instructor with written notice of the specific dates for which the student requires an accommodation and must do so not later than fourteen (14) days after the first day of instruction. Please submit requests for accommodations at this link: https://portal2.tri-c.edu/ReligiousAccommodation/ Religious Accommodation Form. Students with questions about their religious accommodations under Ohio's Testing Your Faith Act may contact the College's Office of General Counsel and Legal Services by phone at 216.987.4856 or via email at legal@tri-c.edu.

Other Required Instructional Policies:

https://www.tri-c.edu/student-resources/curriculum/documents/syllabus-part-b.pdf

Weekly Schedule

	Topics
Week 1	Introduction to the course and syllabus/updates on software
Week 2	Design complex elevation drawings with custom woodwork and cabinetry
Week 3	Design complex elevation drawings with custom woodwork and cabinetry
Week 4	Develop a set of construction drawings for a residential project utilizing advanced skills
Week 5	Develop a set of construction drawings for a residential project utilizing advanced skills
Week 6	Develop a set of construction drawings for a residential project utilizing advanced skills
Week 7	Develop a set of construction drawings for a commercial building, utilizing advanced skills
Week 8	Develop a set of construction drawings for a commercial building, utilizing advanced skills
Week 9	Develop a set of construction drawings for a commercial building, utilizing advanced skills
Week 10	Create 2D and 3D renderings for the residential project
Week 11	Create 2D and 3D renderings for the commercial project
Week 12	Create 2D and 3D renderings for the commercial project
Week 13	Create 2D and 3D renderings for the commercial project
Week 14	Develop a project that can be translated and printed on a 3D printer
Week 15	Develop a project that can be translated and printed on a 3D printer
Week 16	Final Projects due

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Required/Recommended Readings
No Required Textbook

Resources for the Instructor

Muccio, Dean. (2026) *AutoCAD 2027 for the Interior Designer*, SDC Publications.

Stine, Daniel John. (2026) *Commercial Design Using Autodesk Revit 2027*, SDC Publications.

Bryant, Shaun . (2025) *Mastering AutoCAD*, Packt Publishing.

Hamad, Munir. (2020) *AutoCAD 2021 Beginning and Intermediate*, Mercury Learning & Information.

Tal, Daniel. (2013) *Rendering in SketchUp: From Modeling to Presentation for Architecture, Landscape Architecture, and Interior Design 1st Edition.*, Wiley.

Additional Resources for the Instructor

https://www.autodesk.com/
https://sketchup.trimble.com/

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