

## CAD Department Course Outline

### DRFT 2233 – 3D Building Modeling & Documentation (Revit) (F)

***Catalog Description:***

This course covers the basics of Revit Architecture, from schematic design through construction documentation. Students are introduced to the concepts of Building Information Modeling (BIM) and the tools for parametric building design and documentation. This course covers the building of a 3D model with walls, windows, doors, floors, roofs, stairs, reflected ceilings, furniture plans, and the creation of views and annotation for a set of construction documents. Outside lab time will be required.

***Prerequisites:***

DRFT 1234, DRFT 2114

***Credit hours/Contact Hours/Load hours:***

3/3/3

***Target Audience/Transferability:***

This is a required course for the AAS CAD degree with the Architecture option and is non-transferable

***Student Learning Outcomes:***

Students will:

- Describe the benefits of building information modeling
- Use the fundamental features of Revit to produce a 3D model
- Use the parametric 3D design tools on a building project
- Create a floor plan, elevation views, details, and sections needed for construction
- Create a complete set of constructions documents for a building
- Use the presentation tools in Revit to complete a presentation view of a building

***Topics:***

- Understanding Building Information Management (BIM) and how it is applied in Revit
- Using the Revit workspace and the user interface
- Creating a basic floor plan
- Adding and modifying with walls, doors, and windows
- Working with building component families
- Creating and managing views and view properties
- Controlling the placement of objects with dimensions and constraints
- Adding floors, ceilings, roofs, curtain walls, stairs, etc. to buildings
- Create detail views and text for constructions drawings
- Sheets, title blocks, and managing revisions to drawings
- Creating presentation views

***Forms of Assessment:***

- Completion of several small drawing assignments
- Tests/quizzes
- Final Project submitted electronically and on paper

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