

CAD Department Course Outline

DRFT 2353 – Residential Design and Construction (F)

Catalog Description:

This course is a study of the production of residential construction documents and light frame construction techniques. The student will produce detailed working drawings for residential structures that are in compliance with criteria set forth in National Building Codes and local code restrictions. Topics include common residential construction materials, components, and systems as related to wood frame structures.

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:

- Produce a set of construction drawings that include site plans, floor plans, building sections, elevations, roof plans, and details
- Identify the typical residential component systems including structural, electrical, plumbing, and HVAC
- Apply the proper dimensions to all drawings
- Locate and use regulatory information such as building codes and zoning regulations
- Apply architectural terms, notations, and graphic symbols properly on drawings
- List the types of doors and windows used in residential structures
- Design a stairway for a residential structure

Topics:

- Architectural and construction terms
- Building codes and zoning restrictions
- Sheet layouts for residential structures
- Window, door, and finish schedules
- Dimensioning requirements
- Floor plan design
- Elements of a typical wall section
- Elements of a detail
- Roof styles and their affect on structural design
- Building material choices

Forms of Assessment:

- Complete set of residential plans for 2 projects
- Tests/quizzes on terms, building codes, and architectural components

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