

CAD Department Course Outline

DRFT 2363 – Commercial Building Design and Construction (S)

Catalog Description:

This course introduces students to commercial building terminology, materials, methods of construction, and the codes governing their design. Procedures in planning and drawing construction documents structures such as schools, clinics, churches, office buildings, multi-family residences, etc. will be addressed. Emphasis is placed on architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building.

Prerequisites:

DRFT 1234, DRFT 2114

Credit hours/Contact Hours/Load hours:

3/3/3

Target Audience/Transferability:

This course is required for the Architectural Design option of the AAS CAD degree and is non-transferable

Student Learning Outcomes:

Students will:

- Produce a set of code compliant construction documents that include a site plan, floor plans, building sections, roof plan, and details of a small commercial project
- Identify and describe the primary considerations needed when designing a commercial building
- Draw and annotate details typical of commercial construction
- Select structural members from manufactures' catalogs
- Interpret national and local building codes
- Describe the "team approach" to construction design used in firms today

Topics:

- Design concepts and the processes involved in commercial building design
- Building code applications
- Working in an office environment, project conception, developing sketches, and final architectural documents.
- Fire protection systems
- Occupant load, accessibility, egress and other commercial structure issues
- Interior environments
- Detail drawings for commercial buildings
- Special design considerations such as ADA guidelines and regulations
- Sustainable building practices including design, specification, construction, lifecycle issues, and LEED certification

Forms of Assessment:

- Completion of several drawing assignments
- Tests/quizzes on CAD commands and concepts
- Final Project consisting of a complete set of documents needed to construct a commercial building

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