



DRFT 1020

Division: Career and Technical Education

Department: Drafting Technology

Course: DRFT 1020

Title: Architectural Drafting and Design

Catalog Description:

This course provides a correlation of good residential drafting techniques with basic principles of efficient house design. It includes practical drawing of plot plan, footings, foundation, floor plans, elevations, sections and details. This course also includes an introduction to 2-Dimensional Computer-Aided Drafting techniques for architectural applications.

General Education Requirements: N/A

Semesters Offered: Fall, Spring

Credit/Time Requirement: Credit: 3; Lecture: 2; Lab: 3

Clock/Hour Requirements: 0

Offered for Non-Credit: No

Prerequisites: N/A

Corequisites: N/A

Justification:

This course provides essential skills needed by students who want to pursue a career in building construction, architecture and related fields.

Student Learning Outcomes:

Upon successful completion of this course, students will:

- learn how to use and identify the tools and materials needed to complete architectural drawings
- understand how to design an efficient home using practical area planning principles
- learn the fundamentals of architectural design and planning, including architectural styles, solar orientation, and aesthetics
- develop and/or enhance his/her architectural drafting skills by completing a full set of residential house plans of his/her own design. This set will include a plot plan, a foundation plan, floor plan(s), elevations, electrical plan, and sections and details
- learn and use the symbols, terms and methods needed to complete a set of residential house plans
- create at least 25% of the drawings on a CAD system and print them on a plotter for blueprinting
- make a set of blueprints from his/her original drawings.

Content:

This course will include:

- Introduction to Basic Drafting Techniques
 - Drafting Tools, Instruments and Equipment
 - Lettering and Drawing Techniques
- Introduction to Computerized Drafting Techniques
 - Basic AutoCAD Commands for Architecture
 - Setup of Drawing and Drafting Procedures
- Preliminary Design and Planning
 - Fundamentals of Designing and Planning
 - Environmental Factors in Design
 - Wall Section
- Area Planning
 - Living Area
 - Service Area
 - Sleeping Area
- Floor Plans and Elevations
- Electrical, Plumbing and Climate Control Plan
- Footings, Foundation and Framing Plans
- Sections and Details
- Location of Plot Plans

General Education Outcomes:

Applied Education Outcomes:

- 1) Students will acquire entry-level skills specific to and appropriate for employment in their chosen field of study. Students will be able to draw a basic set of plans for a residential home.

Key Performance Indicators:

Outcome assessment will be an evaluation of:

- performance on completed set of residential house plans (60%)
- scores on faculty developed tests on the objectives of the course (40%).

Percentages are approximate.

Representative Text and/or Supplies:

- Helper and Wallach, *Architecture Drafting and Design*, current edition, Thompson, Delmar Learning.

Optimum Class Size: 12

Maximum Class Size: 12

Signatures:

I hereby submit this course syllabus:

Craig Conder, ,

I hereby find this course consistent with the goals and resources of the Drafting Technology Department:

Craig Conder, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)