

Number & Title of Course:

ARCH 4000 Design V: Technology, 6 credits

Course Description:

This course encompasses integrated design, synthesizing building systems, sustainable principles and a more complete approach to planning and design of commercial buildings.

Course Goals:

- The primary goal is to explore architectural and sustainable principles, and planning and building technologies through a comprehensive approach to architectural design.
- Introduce a holistic approach to structural and mechanical systems
- Understand the use of materials and space as an imperative for sustainable practices.

Course Objectives:

- Students should be able to integrate architectural principles and technology to produce a solution that addresses aesthetics, function, and systems as a whole.
- Students should be able to develop and implement a functional program that addresses a variety of user considerations.
- Students should be able to demonstrate the proper assembly of building materials and elements through computer and traditional media.
- Students should understand the intent and application of third party evaluating systems such as LEED

Student Performance Criteria addressed:

A.1 Professional Communication Skills

B.1. Pre-Design

B.3. Codes and Regulations

B.6. Environmental Systems

B.7. Building Envelope Systems + Assemblies

B.9. Building Service Systems

Topical Outline (include percentage of time in course spent in each subject area):

Historic and Cultural Research (30%) Codes and Guidelines (20%)

Architectural Design (40%) Modeling, Graphic Representation (10%)

Prerequisites:

ARCH 3050 Design IV: Urban; ARCH 4060 Building Technology II – *Co-Requisite*

Textbooks/Learning Resources:

The Architect's Studio Companion; 4th Edition; Allen, Iano; John Wiley and Sons; 2017

Classic Readings in Architecture; Stein, Sprecklemeyer; 508pp. , McGraw Hill, Fairmont State University; 1999

Building Construction Illustrated; Ching, John Wiley and Sons, 2014

2-D/3/D computer software, Sketch Book, Modeling Supplies

Offered:

Fall, Annually

Faculty assigned:

Philip M Freeman, Associate Professor of Architecture