

**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

**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:**

Stein, Sprecklemeyer; 508pp., McGraw Hill, Fairmont State University; 1999

*Classic Readings in Architecture*

Allen, Iano, *The Architect's Studio Companion: Rules of Thumb for Preliminary Design, 6th Edition*

Francis Ching, *Building Construction Illustrated, 5th Edition*

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

**Offered:**

Fall, Annually

**Faculty assigned:**

Stacey Bowers, AIA, NCARB, Adjunct Assistant Professor of Architecture