

**Number & Title of Course:**

ARCH 4060 Building Technology II, 4 credits

**Course Description:**

This course investigates the building envelope and structural system, explored through the creation of a set of technical drawings for a commercial building.

**Course Goals:**

- The primary goal is to integrate materials, structural systems, and technologies into the design and documentation process.
- To consider the implications of accessible design into the design and documentation process.
- To understand the methods and techniques necessary to develop a detailed set of technical documents including drawings and specifications.

**Course Objectives:**

- Students should be able to convey through drawings and written descriptions knowledge of typical construction materials, their assembly and applications.
- Students should be able to demonstrate the architectural and tectonic relationship of building elements and their assembly at individual component level of detail.
- Students should be able to research material alternatives and appropriately apply material research to the design and documentation process.
- Students should be able to use BIM software to develop to scale technical drawings.

**Student Performance Criteria addressed:**

B.4. Technical Documentation

B.5. Structural Systems

B.7. Building Envelope Systems + Assemblies

**Topical Outline:**

Material Assembly and Systems (50%)

Construction Documentation (50%)

**Prerequisites:**

ARCH 2060 Building Technology I; ARCH 4000 *Design V: Technology – Co-Requisite*

**Textbooks/Learning Resources:**

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

Allen, Iano, *Fundamentals of Building Construction: Materials and Methods*,

Francis Ching, *Building Construction Illustrated*

Ramsey, Sleeper, *Architectural Graphic Standards: Student Edition*

2-D/3-D computer software

**Offered:**

Fall, Annually

**Faculty assigned:**

Philip M Freeman, Associate Professor of Architecture