

Number & Title of Course: ARCH 241 Architectural Practice 2.1 (lecture component).

Course Description: The language, principles and materials of construction with an emphasis on the origin, history, and application of traditional and emergent materials. 2 lectures, 2 activities.

Program Goals & Course Outcomes

- Think critically and creatively about architectural problems.
 - Ability to respond to site characteristics in the development of a project design (B2).
- Use a diverse range of skills including writing, speaking, drawing, and modeling to think about and convey architectural ideas.
 - Ability to write and speak effectively (A1).
 - Ability to use appropriate representational media for public and professional audiences (A1).
- Understand and apply the technical aspects of architecture, while considering the environmental impact of design decisions.
 - Ability to demonstrate the principles of environmental systems design, how design criteria can vary by geographic region, and the tools used for performance assessment (B6).
 - Understanding the selection and application of building materials and assemblies (B8).
- Engage in lifelong learning as a professional.
 - Ability to gather, assess, record, and comparatively evaluate relevant information (A3).

Student Performance Criteria addressed

A1 Professional Communication Skills

A3 Investigative Skills

B2 Site Design

B6 Environmental Systems

B8 Building Materials and Assemblies

Topical Outline

Drawing conventions and design processes (15%)

Programming (5%)

Climate, solar geometry, and site analysis (20%)

Stereotomic and tectonic systems (5%)

Construction materials (55%)

Prerequisites: ARCH 133. Corequisite with ARCH 251

Textbooks/Learning Resources

Alread, Jason, et al. *Design Tech*. New York: Routledge, 2014.

Bell, Victoria Ballard, and Patrick Rand. *Materials for Design*. New York: Princeton Architectural Press, 2006.

Bell, Victoria Ballard, and Patrick Rand. *Materials for Design 2*. New York: Princeton Architectural Press, 2014.

Ching, Francis D. K. *Building Construction Illustrated*. Hoboken: Wiley, 2014.

Offered: Fall annually.

Faculty Assigned: Robert Arens (Professor), Kent Macdonald (Lecturer), and Clare Olsen (Assistant Professor).