**ARCH 6230: Construction Tech II, 3 credits**

**Course Description:** Integration, representation, and constructability of building assemblies and structural systems. Grading, drainage, foundations, structure, and enclosure in relation to building codes and principles of sustainability.

**Course Goals & Objectives:**

* Students will demonstrate knowledge of constructability in relation to site and building assemblies, building codes, solar orientation, and principles of sustainability.
* Students will develop the language of building systems and assemblies such that representations of construction can supplement and expand both experiential and conceptual dimensions of studio design projects.
* Students will develop and demonstrate a working knowledge of job site protocols, monetary values associated with site design: grading, drainage, professional fees, and construction costs.

**Student Performance Criteria Addressed:**

A.4. Technical Documentation (A)

B.4. Site Design (A)

B.7. Financial Considerations (U)

B.9. Structural Systems (U)

B.10. Building Envelope Systems (U)

B.11. Building Service Systems (U)

B.12. Building Materials and Assembly (U)

**Topical Outline:**

Grading, Paving and Drainage (10%); Layout, Roads, and Parking (10%); Wall, Steps and Drains (10%); Site Costs (10%); Service, Basements, and Foundations (10%); Structural Systems and Framing Plans (10%); Moisture and Heat Transfer (15%); Glazing and Curtain Walls (15%); Roof Plans and Drainage (10%).

**Prerequisite:** ARCH 6229, Construction Tech I

**Textbooks/Learning Resources:**

Landphair and Klatt, *Landscape Architecture Construction*, Elsevier, New York, 1988, 2nd edition.

Ramsey and Sleeper, *Architectural Graphic Standards*, John Wiley & Sons, New York, 1994, 8th edition.

Ramsey and Sleeper, et. al. Architectural Graphic Standards, New York, John Wiley & Sons, 2000, 10th edition.

Ed Allen, *Fundamentals of Building Construction: Materials and Methods*, John Wiley and Sons, New York, 1999, 3rd edition.

**Semester & Frequency Offered:**

Spring only; annually

**Faculty Assigned:**

Douglas C. Allen

Charles Rudolph