CourseNo: ARCHA4111_001_2012_3
Meeting Location: AVERY HALL 114
Meeting Time: T 09:00A-01:00P

Instructor Information:
Phillip R Anzalone

This course is the first in the Architectural Science and Technology series at the Graduate School of Architecture. The subtopic of the course is “matter”; the content deals with the fundamental scientific, technological, professional and conceptual foundations with which architecture engages the material world. This course will prepare the students to continue on to study advanced structural systems, complex environmental conditions and concerns, energy related issues, building systems integration and the fundamentals of incorporating science and technology into architectural design problems.

Architectural Technology I is a combination of three different but related studies that will prepare students early in their academic career for considering scientific and technical issues as a basic component of architectural design. The first unit of the course deals with fundamental concepts in structural mechanics, structural materials and architectural structural systems. The second unit of the course deals with fundamentals of the environment, energy related concepts in architectural thermodynamics and the basics of material performance. The final unit of the course is a detailed look at basic building envelope components and systems and a review of contemporary examples of these systems.

There will be individual homework assignments and in-class quizzes through the semester, so attendance is highly encouraged. At midterm, an in-class exam will be given to test the students knowledge of the theoretical basis of the course that is primarily weighted toward the early portion of the subject matter. The final project will comprise a majority of the students grade, and will be performed as a group, so students should be prepared by midterms to gather into a group of three or four to work on the final project. This project will require students to leverage their understanding of the theoretical and conceptual underpinnings of the coursework, while applying their knowledge to a real-world example.

The students will not be required to purchase a textbook as the content for the course encompasses many professional and trade references, making individual purchases prohibitive. Reading material will be placed on reserve at the Building Science and Technology reserve shelf in Avery Library. In addition, pertinent portions of certain reading will be provided in print format for students to check our for use in study and assignments. A number of additional reference material will be made available as needed through the GSAPP Building Science and Technology LIbrary.

Due to potential copyright issues, and to encourage attendance of the weekly lectures, the slides presented in the class will not be made available to students before the lecture. When made available, the slides will be low-resolution and include security features that will not allow copying of images. All attempts are made to credit and identify all material in the presentations such that students may take note during the lectures and research the subject further as desired.