ARCH 4/510 Construction Management

4 credits, pre-requisite ARCH 4/570 Building Construction
Tuesdays 2:00-4:50
Instructor: William G. Ramroth, Jr. AIA, NCARB, LEED AP

Course Objective
At the end of the course, students will be able to explain the basic principles and activities of Construction Management (CM) from the perspective of an architect and will have completed the course assignments outlined below. This course fulfills the advanced building technology requirement for students enrolled in one of the Department of Architecture’s professional architecture programs.

CM Principles and Activities covered in the Course
Classes will be divided into lectures, group discussions, site visits, and work sessions. Two class field trips will be taken to local construction sites to observe construction and learn from Construction Managers. Each student will conduct 2 independent contractor office/construction site visits and prepare reports of their visits.

Subjects discussed during the course will include:
- Different definitions of the term "Construction Management" used in design/construction industry
- Typical activities of Construction Management
- Skills and characteristics of a good Construction Manager
- Common types of Construction Management contracts
- Component parts of Construction Documents
- Services provided by the Architect during construction
- The basics of a Building Code Analysis
- How to prepare Construction Cost Estimates and Project Schedules
- Sustainable design and construction based on USGBC’s LEED Building Certification Program
- Principles of Value Engineering and Construction Risk Management
- The importance of Professional and Ethical Conduct

Course Assignments
Each student will prepare field observation reports for the two independent site visits and make one 20 twenty-minute class presentation summarizing his/her visit(s).

Based on a past design project of each student’s choosing, students will prepare the following course assignments:
- Building Code Analysis Summary Sheet
- U.S. Green Building Council LEED sustainable design strategy and checklist
- Bar-type Construction Schedule showing Critical Path
- Construction Cost Estimate in CSI Format

The following books are recommended reading:

Project Management for Design Professionals, William G. Ramroth, Jr.

Instructor Biography
William G. Ramroth, Jr. AIA received his Bachelor’s and Master’s of Architecture degrees from the University of Oregon in 1973 and ‘74. He has 35 years experience in design and construction, working on building projects ranging in size from $100,000 to $120 million. He is author of 4 books on architecture: Pragmatism and Modern Architecture, Project Management for Design Professionals, Risk Management for Design Professionals, and Planning for Disaster: How Natural and Manmade Disasters Have Shaped the Built Environment.