

# ARCH 410/510 Construction Management

Fall 2009

Instructor: William G. Ramroth, Jr AIA, LEED AP, NCARB

4 credits, Tuesdays 2:00-4:50

Pre-requisite ARCH 470/570 Building Construction

This course fulfills advanced building tech credits or program elective credits.

## 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 successfully prepare the course assignments outlined below.

## CM Principles and Activities covered in the Course

Classes will be divided into lecture/discussion/work sessions. Two field trips will be taken to local construction sites to observe construction and learn from Construction Managers. Subjects discussed during the course will include:

- The different definitions of Construction Management used in the 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
- Basics of a Project Work Plan
- How to do a Building and Zoning 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

Based on a past design project of each student's choosing or a design project selected by the instructor, students will prepare the following course assignments:

- Building Code Analysis Summary Sheet
- List of Required Submittals by Construction Specification Institute (CSI) specification section
- 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.

*Risk 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*.