

ICML

INTEGRATED CONSTRUCTION, MANAGEMENT + LEADERSHIP CERTIFICATE

REQUIRED CERTIFICATE COURSES: ++

CVEN 5235

ADVANCED CONSTRUCTION ENGINEERING

This course provides a comprehensive survey of a variety of advanced construction means and methods. Topics include: high-level project management, cost estimating, scheduling, planning and control, and construction materials. Guest lecturers highlight opportunities and challenges in current practice.

Upon completion of the course students should be able to:

- Apply core Construction Engineering Management concepts.
- Explain principles related to estimating, methods and materials, construction technology, temporary construction and field engineering.

ARCH 6490

INTEGRATED PRACTICE + BIM TECHNOLOGY

This class will be a general overview of integrated practices and technologies used in today's industry. Understanding the nature of how information is created and managed using BIM technologies will help us define a road map for how information passes downstream and bring value to a project.

Upon completion of the course students should be able to:

- Demonstrate how information is created at the root level and how it is shared throughout its lifecycle.
- Apply concepts and methodologies of integrated practice & technology.
- Demonstrate the future of the design and construction industry.

BANA 6650

PROJECT MANAGEMENT

The course introduces the topic of Project Management (PM) in a business environment. Emphases will include the knowledge, skills, tools, and techniques as presented in the Project Management Body of Knowledge (PMBOK) a variety of managerial aspects commonly encountered in PM, and current extensions of PM. Projects in diverse contexts are examined.

Upon completion of the course students should be able to:

- Identify best practices in project management.
- Identify decision-making processes for simple to complex projects.
- Describe the basic principles of project management as defined by the Project Management Institute (PMI).

CVEN 5238

CONSTRUCTION LEADERSHIP

The final course is an integrated architecture, engineering, and construction (AEC) business course bringing together executives, principals, and managers to current industry topics and provide students an opportunity to apply management and leadership principles from the various fields to case study projects.

Upon completion of the course students should be able to:

- Research the broader context and theories of integrated leadership in industry today.
- Apply a historical perspective relating to leadership and management.
- Demonstrate an understanding of the core competencies of leadership in the built environment.
- Demonstrate best practices in integrated and management experiences.

++ If these courses are not offered in a given semester with permission other courses with similar scope and level may be substituted.