Construction Management Minor or Certificate

Course Descriptions

To receive a minor or certificate in construction management, you must take the following courses:

CMgt 3001 - Introduction to Construction
Introduction to construction and processes that shape our environment. A discussion of construction types and their differences, key participants and their vocabulary, and delivery systems. Construction specialists and their roles. Elements of the management of construction. Construction plan reading. Course consists of lectures and field trips. (3 credits; no prerequisites)

CMgt 4011 - Construction Documents and Contracts
Definition, interpretation, and utilization of drawings; specifications; agreements; bidding forms; general conditions; bonds, contracts, subcontractors, and related documents. Appropriate provisions for minority business participation, such as tax exempt status and wage rates, will be included. (3 credits; prerequisite CMgt 3001, 45 semester credits completed)

CMgt 4021 - Construction Planning and Scheduling
Concepts of project planning, scheduling, and control. Understanding project scheduling models with emphasis on the critical path method. Introduction to the techniques used in the industry utilizing commercial software on personal computers. The importance of periodic updating and analysis of schedules and of considering and understanding alternatives will be stressed. (3 credits; prerequisites CMgt 3001, CMgt 3011, 45 semester credits completed)

CMgt 4022 - Construction Estimating
Purposes and uses of various kinds of estimates. Techniques for performing quantity take-off, organizing bidding process, requesting and analyzing subcontractor proposals, unit pricing, utilizing published resources, and preparing systems-based estimates. Personal computer programs, spreadsheets, and custom applications to be introduced and used. The linkages between estimates, budgets, cost control systems, and historical cost records will be established. (3 credits; prerequisites CMgt 3001, CMgt 3001, 45 semester credits completed)

CMgt 4031 - Construction Safety and Loss Control
Introduction to construction safety, health, and loss control. Hazard recognition. Control procedures. Management systems for measuring/evaluating loss-control performances in the construction industry. (3 credits; prerequisites CMgt 3001, 45 semester credits completed)

CMgt 4073 - Building Codes for Construction Managers
Building codes history, foundation, structure, and organization. Importance to the built environment throughout building life cycle: design, construction, occupancy, demolition. Code compliance and role of building code official. Interpretation and application to specific scenarios. Recognizing and correcting code deficiencies. (1 credit; prerequisite 45 semester credits completed or instructor consent.)

CMgt 4861 - Construction Management Capstone
Concepts of project management and leadership needed to solve critical, complex and recurring problems on construction projects. Students apply core construction management coursework to industry case studies to create, solve, critically consider, and effectively articulate solutions. (2 credits; prerequisites: CMgt 4011, 4021, 4022, 4031. Non-CMgt majors by permission only.)