

# *Construction Management - CPS (CMG)*

## **Courses**

### **CMG 6400. Introduction to Construction Management. (4 Hours)**

Seeks to provide a foundation in both technical skills and individual written and verbal communication for construction project managers. Since students come to the program from a variety of educational and experience backgrounds, offers students an opportunity to be assessed and brought to the level necessary for successful completion of the program. Topics covered include construction documentation, including specifications and drawings; the preconstruction processes required for planning; and construction operations needed for successful operations and control, including estimating, cost control, and change-order management. Students practice scheduling techniques, progress monitoring, and reporting approaches for projects and are introduced to construction organizations, contractor selection, and project procurement.

### **CMG 6402. Alternative Project Delivery Methods and Project Controls. (4 Hours)**

Offers a comprehensive overview of alternative project delivery systems in public and private sectors. Topics include project life cycle; alternative project design, including building information modeling (BIM); schedule; cost and value management; project and program management; project closeout; and innovative procurement strategies. Also examines international projects, contracts, terminations, defaults, and sustainable and integrated project delivery (IPD) as vehicles to ensure the meeting of project objectives. Uses case studies and real-world examples to identify and practice the leadership skills required for successful project execution.

### **CMG 6403. Safety, Project Risk, and Quality Management. (4 Hours)**

Offers students an opportunity to learn how to develop and manage a risk identification, analysis, and response plan. Students look at project participants and several construction processes with a focus on the safety, risk, and quality impacts on those processes. Covers the latest techniques to ensure that a project provides a safe environment for everyone. Studies the analytical tools necessary to ensure customer satisfaction in the area of quality and examines both quality control and assurance processes.

### **CMG 6405. Construction Law. (4 Hours)**

Explores the statutory and legal context of contracts in construction. Covers business ethics and examines the legal issues that may result in bidding mistakes and construction disputes over such matters as differing expectations regarding specifications and plans, time and schedule impacts, delays and acceleration, change orders, and differing and unforeseen conditions. Explores some areas of warranties and guarantees; joint liability; and contract-dispute resolution, including negotiation, alternative dispute resolution, and litigation.

### **CMG 6962. Elective. (1-4 Hours)**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.