

## **CM 3420: Estimating II: Cost Estimating and Bid Preparation**

### **3 Credit Hours**

*Prerequisite: CM 3410*

The continued study of the estimating process emphasizing pricing the general contractor's work, including estimating procedures, development of direct and indirect unit costs, evaluation of subcontractor bids, bidding strategy and bid opening. The completion of an estimate, bid submission, and development of a schedule of values are required. Also included is an introduction to conceptual estimating.

## **CM 3430: Construction Estimating for Development**

### **3 Credit Hours**

*Prerequisite: CM 3410*

A study of quantity take-off techniques and equipment productivity analysis necessary to development. Small scale development project budgeting will be analyzed from the developer viewpoint. Initial conceptual design budget is based on square foot or assembly pricing for the various construction systems and detailed estimate for the infrastructure costs including site work and utilities. Indirect costs associated with zoning, local codes, and ordinances, as well as soft cost associated with design and engineering will be discussed.

## **CM 3440: Heavy Estimating**

### **3 Credit Hours**

*Prerequisite: CM 3410*

Advanced estimating techniques and bid preparation for heavy construction projects. Study of the principles used in developing cost estimates for heavy construction projects. Includes interpretation of contract documents, quantity take-off, pricing, and preparation of unit-price bid documents. Introduction and practice with takeoff software for bidding earthwork, paving, utilities, roads, and bridges.