



# WPI

## CONSTRUCTION PROJECT MANAGEMENT Course Descriptions

*All courses are delivered fully online in a convenient, asynchronous format. Start off the tracks below by completing **9 credits from 'shared courses.'***

### **GRADUATE CERTIFICATE (18 credits)**

CE 584. Advanced Cost Estimating Procedures, CE 587. Building Information Modeline (BIM), plus 3 additional CPM breadth credits

### **MASTERS (33 credits)**

Complete the graduate certificate and then take FIN 500. Financial Information and Management, 6 credits of CPM breadth courses, and 6 credits of electives

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#### **CE 584. ADVANCED COST ESTIMATING PROCEDURES**

This course examines cost estimating as a key process in planning, designing and constructing buildings. Topics include the analysis of the elements of cost estimating; database development and management, productivity, unit costs, quantity surveys and pricing, and the application of these tools in business situations; marketing, sales, bidding, negotiating, value engineering, cost control, claims management and cost history. Computerization is evaluated as an enhancement to the process.

#### **CE 587. BUILDING INFORMATION MODELING (BIM)**

This course introduces the concept of Building Information Modeling (BIM) which is a relatively new approach in planning, design, construction and operation of constructed facilities in a technologically enabled and collaborative fashion. The course reviews fundamental concepts for collaboration and integration; it also reviews technologies that support the BIM approach and provides discipline specific as well as global perspectives on BIM. The course format includes formal lectures, computer laboratory sessions, student presentations based on assigned readings and a project developed collaboratively by the students throughout the course. Guest speakers may be invited based on the topics covered and discussed in class. Prerequisites: Basic knowledge of computers. Exposure to professional practice in any area of the Architecture / Engineering / Construction / Facilities Management (A/E/C/FM) industry is desirable. Students are not permitted to receive credit for CE 587 if they have previously received credit for CE 585 or CE 590A-BIM.

#### **FIN 500. FINANCIAL INFORMATION AND MANAGEMENT**

This course develops expertise in financial decision-making by focusing on frequently used financial accounting information and the conceptual framework for managing financial problems. Students are introduced to the accounting and financial concepts, principles and methods for preparing, analyzing and evaluating financial information, for the purpose of managing financial resources of a business enterprise and investment decisions. The course adopts a decision-maker perspective by emphasizing the relations among financial data, their underlying economic events, corporate finance issues, and the responses by market participants.

Visit our dedicated website for National Grid:  
<https://wp.wpi.edu/nationalgrid>

Course Rotation:  
<https://www.wpi.edu/academics/online/study>

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