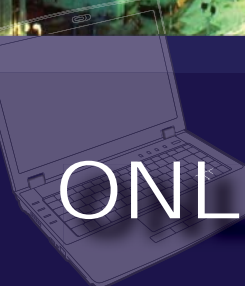




# Masters Degree <sup>in</sup> Capital Projects Supply Chain



## ONLINE!

**10 total courses**

**3 courses per year**  
August-December  
January-April  
May-July

**Program** accepts new students each May

*"Fluor Corporation recognizes the immense value supply chain management brings to capital projects. We are pleased to be able to partner with the State of South Carolina to establish what is a truly unique master's degree program for working engineers and supply chain professionals."*

- Jim Scotti  
Senior Vice President and Chief  
Procurement Officer  
Fluor Corporation

### About the Program

Clemson University is proud to offer a Master of Engineering in Industrial Engineering with a concentration in Capital Projects Supply Chain and Logistics designed specifically for working professionals. To achieve the objective of improving and optimizing the supply chain with specific applications in capital projects, a multidisciplinary approach has been developed that integrates coursework and appropriate fundamental tools from Industrial Engineering, Civil Engineering, and Management. This structure will provide both a diversified knowledge base for improving supply chain processes today, and durable tools and concepts that will continue to serve the graduate in facing the challenges of tomorrow. The program represents and explores the various roles and interests in the execution of capital projects, including owners, contractors, suppliers and subcontractors.

To accommodate the demanding schedules of full-time professionals, all classes are offered online through asynchronous, web-based delivery with no residency requirement. Lectures can be downloaded to a desktop, iPod, or mobile device for convenient viewing. Since these courses are self-paced and accessible on the web, students can continue their education regardless of their location worldwide.

### Time to Completion

Students take one course at a time, three per year, so the program requires 40 months to complete. The reason for this design is simple. Courses have been constructed to require between 60 and 90 minutes every day so that students can balance pursuing a master's degree, remain effective at work, and maintain a quality home-life, as well. Students report that this balance results in an enjoyable learning experience, better retention, and a positive impact on their current jobs.

### Program Costs

All courses cost \$750 per credit hour plus an estimated \$50 in fees, or approximately \$2,300 per course. Textbooks are an additional cost, but faculty have selected books that will be used in more than one course, creating a "library" of references for the future.

### Program Prerequisites

Prerequisites for enrollment in this program are: 1) an undergraduate degree from an accredited university, 2) college mathematics consistent with a degree in engineering, business or management, and 3) relevant industry experience. Students do not need an undergraduate engineering degree to be considered for admission.

# CLASSES

## **Core Industrial Engineering Fundamentals**

### **IE 851 Data Collection, Analysis and Interpretation**

Methods for effectively working with data to extract and communicate meaningful information. Excel is the software tool used.

### **IE 852 Modeling and Decision Making**

Techniques for modeling real-world problems and solving them to facilitate better decision making. Excel is the software tool used.

### **IE 853 Foundations of Quality**

Discussions of selected topics from quality control, total quality management, and Six Sigma, especially those relating to supply chain analysis and improvement.

### **IE 854 Fundamentals of Supply Chain and Logistics**

Application of model building and analytical techniques in the design, optimization, and control of the supply chain and logistics systems.

### **IE 857 Health, Safety and the Environment**

A comprehensive look at the basics of environmental impacts and remediation programs and at the issues related to health and safety in construction, including reducing workplace injuries and implementing an effective safety management program.

## **Capital Projects Supply Chain Concentration Classes**

### **IE 850 Introduction to Capital Projects Supply Chain**

Introduction to the phases of capital projects and the design and control of the capital projects supply chain including the challenges associated with each of the primary roles – owners, contractors, suppliers.

### **IE 855 Capital Projects Supply Chain**

Application of quantitative and qualitative tools and techniques in the design, control, management, and optimization of the capital projects supply chain.

### **MGT 856 Business Fundamentals for Supply Chain Management**

Principles and techniques of leadership, human resources management, financial management, marketing and economic analysis, particularly as they relate to the capital projects supply chain.

### **IE 858 Case Studies in Capital Projects Supply Chain**

Integration of topics covered throughout the curriculum using a series of real-world case studies in capital projects.

### **IE 859 Capstone Design Project**

A capstone experience in industry requiring application of curriculum content to a real-world opportunity.



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