

#### NEWARK COLLEGE OF ENGINEERING

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John A. Reif, Jr. Department of
Civil and Environmental Engineering

## **Syllabus and Course Information**

#### **Course Name:**

**Construction Management** 

### **Course Number:**

CE 610

#### **Course Structure:**

On-line

#### **Instructor:**

Kevin P. Wynn, PE

email address: <a href="wynn@njit.edu">wynn@njit.edu</a>
Email turnaround time: 12 hours

When writing an email, insert "CE 610" into the Subject line.

Office Hours: 1:00pm on Saturdays via Microsoft Teams. A link will be provided.

### **Expectations:**

All assignments are to be submitted in a complete professional manner. Documents shall be submitted as a single PDF document, please do not submit root files, such as original Word documents, Excel files, or any other software files.

### **Course Description:**

The Course provides the student with an introduction into construction management. It includes Wick's Law, New Jersey Local Public Contracts Law, cost estimating, permitting, scheduling and safety.

### **Prerequisites:**

- B.S. degree in CE, technology, architecture, or related field.
- Technical knowledge in the following software: Microsoft Excel, Microsoft Project, Microsoft Word, Adobe

# **Required Elective or Selected Elective:**

Required

## **Required Materials:**

Text: Construction Project Administration by Edward R. Fisk and Wayne D. Reynolds

ISBN 10: 0-13-286673-0 ISBN 13: 978-0-13-286673-6

## **Course Learning Outcomes:**

By the end of the course students will be able to:

- 1. Identify the different roles within a construction project
- 2. Describe the different structures of construction contracts
- 3. Apply principles of budgeting and cash flow to construction management.
- 4. Summarize Wick's Law and the Local Public Contracts Law and how they apply to develop construction contracts
- 5. Prepare properly formatted change orders
- 6. Explain contract law and the structure of specifications
- 7. Perform bidding and negotiations
- 8. Develop Critical Path Schedules
- 9. Compare different types of cost estimating
- 10. Summarize the importance of safety and OSHA regulations

#### **Course Schedule:**

This course is organized by weekly modules. Each week, students must watch lecture videos, complete an assignment, and participate in a class discussion forum. There are some weeks with either a larger assignment or exam and will not include a discussion. All assignments and discussion posts are due by 11:59 PM EST/EDT by the dates listed in the table below. All discussion boards require an initial post due by Thursday of that week with replies to at least two other classmates by Sunday. All assignments are due by Sunday nights except for the Scheduling Project that is due on a Friday.

Week	Topic	Assignment(s) &	Discussions &
		Due Dates	Due Dates
Introduction	Course Overview		Student Introduction:
Week			Initial Post: 9/2
			Replies: 9/5
Week 1	Introduction and Financial	<b>H1:</b> Ch. 1 & 2	D1:
	Feasibility	9/9	Initial Post: 9/8
			Replies: 9/12
Week 2	Risk	<b>H2:</b> Ch. 11	D2:
		9/16	Initial Post: 9/15
			Replies: 9/19

	1	,	
Week 3	Insurance and Contract	<b>H3:</b> Ch 12 pgs 180-	D3:
	Structure	182	Initial Post: 9/22
		9/23	Replies: 9/26
Week 4	Specifications and the	H4: Local Public	D4:
	Local Public Contracts Law	Contracts Law	Initial Post: 9/29
		9/30	Replies: 10/3
Week 5	Bonding and Change	<b>H5:</b> Change Orders	D5:
	Orders	10/7	Initial Post: 10/6
			Replies: 10/10
Week 6	Bids and Project Initiation	<b>H6:</b> Ch 12	D6:
		10/14	Initial Post: 10/13
			Replies: 10/17
Week 7	Shop Drawings, Payment	<b>H7:</b> Ch 7 and 21	D7:
	Applications and Project	10/21	Initial Post: 10/20
	Closeout		Replies: 10/24
Week 8	Permitting	Site Visit Report	D8:
		10/28	Initial Post: 10/27
			Replies: 10/30
Week 9	Midterm Exam/Scheduling	Midterm Exam	
		10/30	
		7 AM - 9PM	
		<b>H8:</b> Ch 13 and Ch 14	
		11/4	
Week 10	Estimating		D9:
			Initial Post: 11/10
			Replies: 11/14
Week 11	Case Study		D10:
			Initial Post: 11/17
			Replies: 11/21
Week 12	Labor Laws	<b>H9:</b> Ch 8	D11:
		11/18	Initial Post: 11/24
			Replies: 11/28
Week 13	Safety	<b>H10</b> : Ch 9 and 20	D12:
		11/27	Initial Post: 12/1
		Scheduling and	Replies 12/5
		<b>Estimating Project</b>	
		11/30	
Week 14	Liens and Claims		
Week 15	Final Exam	Final Exam	
		TBD 7 PM - 9 PM	
		TBD 7 PM - 9 PM	

# **Academic Integrity:**

The students participating in this class agree to conform to, abide by, and agree to the sanctions of the <u>University Code of Academic Integrity</u>.

# **Grading:**

Grading turnaround time includes 2 weeks, and feedback will be added as comments embedded into submissions through the usage of SpeedGrader.

# Legend:

93-100	Α
90-92	B+
83-89	В
80-82	C+
70-79	С
<60	F

### Weighting:

Discussions	10%
Homeworks	10%
Site Visit Report	10%
Scheduling and Estimating Project	20%
Midterm Examination	25%
Final Examination	25%
Total	100%

# **Assignments:**

**Discussions:** Discussions of real-world situation/example which would be based on that particular week's module.

**Homeworks:** Intended to be supplemental readings and questions related to that week's module contents.

**Site Visit Report:** Requirement to visit an active construction site. Asking the supervisor questions that are related to the learning outcomes.

**Scheduling and Estimating Project:** Take the skills learned from the content in regards to estimating and scheduling and apply these skills to develop one's own budget and schedule (critical path schedule).

**Midterm Examination:** Midterm will be based on the lectures and readings from modules 1-7.

**Final Examination:** Final Exam will be based on the lectures and readings from modules 8-14.

#### **Accommodations:**

If you are in need of accommodations due to a disability please contact Scott Janz, Associate Director of the Office of Accessibility Resources & Services (OARS), Kupfrian Hall 201 to discuss your specific needs. A Letter of Accommodation Eligibility from the OARS authorizing your accommodations will be required.

## **Proctoring:**

This course will be using Respondus Lockdown Browser and Monitor for proctoring exams.

## **Netiquette:**

Throughout this course, students are expected to be courteous of classmates by being a polite, active participant. Students should respond to discussion forum assignments in a timely manner, so classmates have adequate time to respond to your post. Respect opinions, even those that differ from your own and avoid using profanity or offensive language.

#### **Modification to Course:**

The Course Outline may be modified at the discretion of the instructor or in the event of Extenuating circumstances. Students will be notified of any changes to the Course Outline.