CEE 610 – 851, 853: Construction Management

(3 credits)

Instructor **Chrissa D. Roessner, P.E.**
Adjunct Professor
Office Hours: By appointment, email cdr44@njit.edu

Course Format

Online virtual. Fall session from September 2nd through December 20th, 2025.

Required Textbook

Not applicable.

Other Recommended Texts & Reading

As posted in Canvas throughout the semester. You should be familiar with how to use the online NJIT library resources for accessing and reading articles.

Course Description

Managerial aspects of contracting. Study of an individual firm in relation to the entire construction industry. Topics include contractor organization and management, legal aspects of construction, and financial planning.

POLICIES & PROCEDURES

Academic Integrity: It is expected that NJIT's University Code on Academic Integrity will be followed in all matters related to this course. Refer to NJIT's Dean of Students website to become familiar with the Code on Academic Integrity and how to avoid Code violations.

https://www.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf

Communication: All communication from the professor to the students will be through Canvas or campus email. Students are requested to email the professor directly using her email address (not through Canvas). Weekly course announcements and information will be posted / emailed utilizing Canvas. Students are strongly encouraged to review these messages carefully and perform any necessary work.

Absences: Any "absences" resulting in missed work must be excused by the Dean of Students. Please refer to the Dean of Students office to confirm what is deemed excused.

Electronic Documents: All course content will be made available through Canvas. Students are responsible for all course content regardless of how it is presented. Students must check Canvas frequently to check for new modules and content. The professor's posted lectures, assignments quizzes and exams are not to be copied or reposted to any other website without professor's consent.

Quizzes and Exams: Students will take all quizzes and exams online, as scheduled. There will generally be a time window during which quizzes and exams must be completed. There will be NO makeup quizzes or exams unless such absence is substantiated and approved by the Dean of Students Office. Students may be required to use a proctoring service or browser lockdown during quizzes and exams with webcam.

Course Schedule:

	Topic	Assignments / Comments
Week 01 09/01/2025	Course Introduction & Syllabus	
Week 02 09/08/2025	Construction - Project Management Introduction to Construction Law	
Week 03 09/15/2025	Project Delivery Methods Proposals and Bidding, Allowances	
Week 04 09/22/2025	Contracts & Specifications Business Structures & Joint Ventures	Quiz #1
Week 05 09/29/2025	Financing & Insurance	
Week 06 10/06/2025	Construction Administration Contractor & Owner Personnel Record Keeping	Quiz #2
Week 07 10/13/2025	Midterm Exam	Midterm Exam
Week 08 10/20/2025	Quality Management Risk Management	
Week 09 10/27/2025	Materials Management Cost Management	Quiz #3
Week 10 11/03/2025	Change Management	
Week 11 11/10/2025	Time Management	Quiz #4
Week 12 11/17/2025	Best Practices Construction Safety	
Week 13 11/24/2025	Thanksgiving Break	Thanksgiving Break
Week 14 12/01/2025	Dispute Resolution Negotiation Skills	
Week 15 12/08/2025	Claims – Case Studies	Quiz #5
Week 16 12/15/2025	Final Exam	Final Exam

Calculation of Course Grade: A weighted average grade will be calculated as follows:

Breakdown		Scale	
Participation	20%	A	100-89
Quizzes	40%	B+	88-83
Midterm	20%	B	82-78
Final	20%	C+	77-70
Total	100%	C	69-65
		F	Below 65

Discussion Board: Discussion posts are due by 11:59 PM EST by the dates listed in discussion topic starter. Students are required to post an initial post and are expected to continue to participate by replying to the professor and other students, generally a minimum of two additional replies; students must verify the requirements of participation listed in each topic.

Assignments: This course is organized with weekly modules in Canvas. Students will be responsible for watching / listening to recorded lectures, reading posted course materials (articles, case studies, etc.), and participating in class discussion forums. Students are responsible for performing any assignments and course work by the perspective due date.

Instructor Commitment: You can expect the instructor to be courteous, punctual, organized, and prepared for the course; to answer questions clearly; to be available for office hours; and to grade uniformly and consistently.

Students with Documented Disabilities: NJIT is committed to providing students with documented disabilities equal access to programs and activities. If you have, or believe that you may have, a physical, medical, psychological, or learning disability that may require accommodations, please contact the Coordinator of Student Disability Services located in the Center for Counseling and Psychological Services, in Campbell Hall, Room 205, (973) 596-3414. Further information on disability services related to the self-identification, documentation and accommodation processes can be found on the webpage at: http://www.njit.edu/counseling/services/disabilities.php

AI statement: The use of artificial intelligence (AI) is permitted in this course only when explicitly stated in assignments. If students use AI for any course-related work, they must cite it according to the guidelines provided on the **NJIT Library AI Citation page**. If you have any questions about AI use in this course, please contact the course instructor before submitting any assignments. In cases where AI use is not allowed, students are expected to complete work without AI assistance to develop their skills in this subject area.

CEE Mission, Program Educational Objectives and Student Outcomes

The mission of the Department of Civil and Environmental Engineering is:

- to educate a diverse student body to be employed in the engineering profession
- to encourage research and scholarships among our faculty and students
- to promote service to the engineering profession and society

Program Educational Objectives

Our **Program Educational Objectives** are reflected in the achievements of our recent alumni:

1. **Engineering Practice:** Alumni will successfully engage in the ethical practice of civil engineering within industry, government, and private practice, working towards safe, practical, resilient and sustainable solutions in a wide array of technical specialties including construction, environmental, geotechnical, structural, transportation, and water resources.
2. **Professional Growth:** Alumni will advance their technical and interpersonal skills through professional growth and development activities such as graduate study in engineering, research and development, professional registration and continuing education; some graduates will transition into other professional fields such as academia, business, and law through further education.
3. **Service:** Alumni will perform service to society and the engineering profession through membership and participation in professional societies, government, educational institutions, civic organizations, charitable giving and other humanitarian endeavors.

Student Outcomes

Our **Student Outcomes** are what students are expected to know and be able to do by the time of their graduation:

1. an ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusion
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies Updated 8/2025