CEE 610 – 101: Construction Management

(3 credits)

Lectures	Friday, 6:00 pm – 8:50 pm FMH 314	
Instructor	Chrissa D. Roessner, P.E. Colton Hall cdr44@njit.edu	Office Hours: Fridays 5:20 pm – 6 pm Email professor for an appointment

Required Textbook

Not applicable.

Other Recommended Texts & Reading

As posted in Canvas throughout the semester.

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. The same is expected of the students when communicating with the professor. Weekly course announcements will be posted / emailed utilizing Canvas. Students are strongly encouraged to review these messages carefully. Email responses will generally be within 24-hours.

Lectures/Class: Students are expected to attend every class session in-person, as scheduled. Attendance will be taken. Students are responsible for any missed work, and any absences resulting in missed work must be excused by the Dean of Students. Additional course content will be made available through Canvas, as appropriate. Students are responsible for all course content regardless of how and when it is presented. Students must check Canvas frequently to check for new modules and content.

Instructor Commitment: You can expect the Instructor to be courteous, punctual, organized, and prepared for lecture and other class activities; to answer questions clearly; to be available during office hours or to notify you beforehand if office hours are moved; to provide a suitable guest lecturer or pre-recorded lecture when they are traveling or unavailable; and to grade uniformly and consistently.

Course Schedule:

Class Meeting Date	Topic	Assignments / Notes
1/19/2024	Introductions / Syllabus / Integrity	
1/26/2024	Overview, Bidding & Contract Management	
2/2/2024	Business & Legal Aspects of Construction Contracts Specifications	Quiz #1
2/9/2024	Extra Work Change Orders	
2/16/2024	Business Structuring (Overview) Financing Insurance	Quiz #2
2/23/2024	Contractor Personnel Owner Personnel Record Keeping	
3/1/2024	Midterm	Midterm Exam
3/8/2024	Spring Break	No Class
3/15/2024	Estimating & Resource Allocation Materials Management	
3/22/2024	Scheduling	
3/29/2024	Scheduling Discussion (Re: Claims) Introduction to Claims	Ungraded Homework Assigned
4/5/2024	Negotiation of Contracts / Changes Dispute Resolution	Quiz #3 Guest Speaker
4/12/2024	Construction Safety	Lecture in Canvas
4/19/2024	Shotcrete	Guest Speaker
4/26/2024	Risk Management Global Economy - Supply Chain	Guest Speaker
4/30/2024	Student Presentations	Research Showcase
TBD	Final Exam	Final Exam

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

Breakdown		Scale	
Quizzes	30%	A	100-89
Midterm	25%	B+	88-83
Research Project	20%	B	82-78
Final	25%	C+	77-70
Total	100%	C	69-65
		F	Below 65

Quizzes and Exams: Students will take all quizzes and exams in-person as scheduled. All quizzes and exams will be available for student review but will be kept / maintained by the professor. Students are permitted to take notes when reviewing quizzes in class. There will be NO makeup quizzes or exams unless substantiated / approved by the Dean of Students Office.

Quiz and Exam Proctoring Requirement: Should any quizzes or exams need to be offered through Canvas, NJIT policy requires that virtual quizzes and exams be proctored to increase and assure academic integrity. In this course we will use either ProctorU Record, or Respondus Monitor

with LockDown Browser, or the quiz or exam will be monitored using Webex. The link below provides a brief description of these proctoring options. Please be familiar with the requirements of each since it may be necessary to utilize any of these during the semester. You must have a webcam for this same purpose.

https://ist.njit.edu/online-course-exam-proctoring

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)

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 scholarship among our faculty and students
- to promote service to the engineering profession and society

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

1. Engineering Practice: Alumni will successfully engage in the practice of civil engineering within industry, government, and private practice, working toward safe, practical, 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 a graduate study in engineering, research and development, professional registration and continuing education; some graduates will transition into other professional fields such as 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.

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 and inclusive 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 conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies