

Course syllabus

CMG 1000 - Introduction to Construction Management

Term: Fall 2025

Course Time: Monday, Wednesday and Friday: 9:00 AM to 9:50 AM

Classroom: Klehm Hall 2040

Course Dates: Aug. 25, 2025 – Dec. 12, 2025

Faculty: Dr. Reachsak Ly

Email: rly@eiu.edu (Preferred communication method)

Office: Klehm Hall 4014

Teaching Method: Lecture

Office Hours: Tuesday and Thursday, 10:00 AM to 1:00 PM or by appointment

Communication Response Time: Within 2 days

Required Textbooks and Readings

- **Required Textbook:** Jackson, B.J. (2020). Construction management jumpstart: The best first step toward a career in construction management. 3rd edition. Wiley & Sons, Hoboken, New Jersey
- **Suggested Textbooks:** Construction Project Management 2nd Edition by Dykstra published by Kirshner ISBN 9780-9827034-3-4
- **Readings:** Several readings will be posted on D2L.

Course description:

Major topics that will be discussed in class will include: The Construction Industry and Trends, Design and Construction Project Phases, Construction Contracts, Project Management, Pre-Construction, Estimating, Scheduling, Project Controls, Project Administration, Quality Control, Health and Safety, BIM, Sustainability and Technologies application in construction.

Course objectives:

This course will introduce the students to construction management processes and procedures, relationships, practices, terminology, project types, procurement methods, industry standards, contract documents, and career opportunities. Topics include the roles of the owner, architect, engineer, and contractor; project teams and organizations; their responsibilities and interrelationships; types of contracts; different project delivery methods; bidding and award documents and procedures; construction budgets; cost estimating; construction planning and scheduling; cost control; sustainability; technology; and managing quality, health and safety. In addition, the course will introduced different technologies used in construction industry.

A tentative schedule for this course is attached in the Course outline section below.

Student Learning outcome:

After completion of the course the student will:

- Understand the characteristics and challenges of the construction industry within the U.S. and role of construction manager/responsibilities.

- Understand the concepts relating to construction administration and project delivery systems, contracting requirements, project control and tracking, dispute resolution, safety, quality assurance and control, and bid process to contract award.
- Understand the principles of project scheduling/stages and explain network diagramming process leading to critical path method and calculations.
- Understand the basic building construction estimates for time, labor, and materials.
- Understand the latest technologies used in the construction industry.

Course Structure

- This course is mainly lectures and projects. You are required to attend each lecture, participate in the class discussion, and actively contribute to your group project.
- This course includes several homework assignments and pop-up quizzes.
- Two exams are scheduled for this course and NO final exam for this course.
- One team project is included for this course.

Graded Course Requirements Information

Homework Assignments and Quizzes

- The homework assignments cover all contents from lectures, textbooks, readings and class discussion.
- The quizzes are unannounced. Please note, there will be no chances for a pop-up quiz make up.
- Attending all lectures is the only way to not miss a pop-up quiz.

Team Projects

The team project includes two deliverables: (1) in-class presentation, (2) a report summarizing your findings written in an academic manner. Detailed information will be discussed in the lectures.

Exams

Two exams cover lectures, textbook, readings and class discussion.
No final exam is scheduled for this class.

Grading Structure

Content	Percentage
Attendance and Participation	10%
Homework assignment and quizzes	25%
Team Project	15%
Exam 1	25%
Exam 2	25%
Total	100%

Grading Scale:

Individual grade items and your final grade will be assessed as follows:

A = 100- 90%

B = 89- 80%

C = 79-70%

D = 69-60%

F = less than 60%

Grading Policies

Deductions to your assignments grade for late submission will be given as follows:

0-24 hours late a deduction of 15% of the earned grade

24-48 hours late a deduction of 40% of the earned grade

48-72 hours late a deduction of 60% of the earned grade

More than 72 hours late No credit.

Assignments must still be submitted to get a grade for this course.

Course Requirements:

1. Complete readings, assignments, attend class, and submit assignments and exams on time.
2. Demonstrating that you are interested and enthusiastic about learning is a good way to improve Participation scores. Be present in both body *and* mind.
3. Independent study of the textbook and other relevant material is required.
4. Attendance: If you do not attend and participate you will not succeed in this class. Only **documented** emergencies and legitimate University activity-related events (e.g., athletes for games, sponsored field trips for other classes) will be excused. Tardiness reduces points awarded by ½. No points are awarded for absences.
5. Homework Assignments, Tests, and Communication will be conducted through the campus learning management system. The student is required to access the system *daily* for updates and to submit assignments.

Course outline

* The course schedule is subject to change throughout the semester. Revisions will be noted in class.

Week	Date	Topics	Readings / Assignments / Quizzes
1	25-Aug	Session 1A: Course introduction	Read Syllabus & Chapter 1 and 2
	27-Aug	Session 1B: Construction Industry, Project Players, Construction Management	
	29-Aug	Session 1C: Presentation from the Lumpkin College Hub for Engagement, Leadership and Professionalism	
2	1-Sep	No Class	
	3-Sep	Session 2A: Project Delivery Methods - DBB, DB & CM Agency	Read Chapter 2
	5-Sep	Session 2B: Project Delivery Methods - DB Bridging, CM@Risk, & IPD	
3	8-Sep	Session 3A: Getting the Work	Read Chapter 3
	10-Sep	Session 3B: Project Stage - Predesign & Design Stage	Read Chapter 5
	12-Sep	Session 3C: Project Stage - Construction & Post-Construction	
4	15-Sep	Session 4A: Managing Teams	Read Chapter 6
	17-Sep	Session 4B: Contracts – Drawings and Spec	Read Chapter 4

	19-Sep	Session 4C: Contracts - Contract Types	
5	22-Sep	Exam review	
	24-Sep	Exam 1	
	26-Sep	Session 5A: Preconstruction	Read Chapter 7
	29-Sep	Session 6A: Estimating	Read Chapter 8
6	1-Oct	Session 6B: Contract Administration	Read Chapter 9
	3-Oct	Session 6C: Change Orders	
	6-Oct	Session 7A: Construction Operation	Read Chapter 10
7	8-Oct	Session 7B: Site Management	
	10-Oct	Session 7C: Planning and Scheduling 1	Read Chapter 11,
8	13-Oct	Session 7C: Planning and Scheduling 2	Read Chapter 11,
	15-Oct	Session 8A: Managing Quality & Safety	Read Chapter 13
	17-Oct	No Class	
	20-Oct	Workshop #1	
9	22-Oct	Session 8B: Monitoring Project Performance	Read Chapter 12
	24-Oct	Session 8B: Value Engineering and EVM	
	27-Oct	Session 9A: Risk Management	Read Chapter 14
10	29-Oct	Session 9B: BIM	Read Chapter 15
	31-Oct	Session 10A: IoT and Sensing	
	3-Nov	Workshop #2	
11	5-Nov	Session 11A: UAS	
	7-Nov	Session 11B: AR/VR	
	10-Nov	Session 12A: Digital Twin	
12	12-Nov	Session 12B: Machine Learning	
	14-Nov	Workshop #3	
	17-Nov	Session 13A: Sustainability and Built Environment	
13	19-Nov	Session 13A: Lean Construction	Read Chapter 16
	21-Nov	Session 13B: Introduction to LEED	
14		Thanksgiving Break	
15	1-Dec	Exam Review	
	3-Dec	Exam 2	
	5-Dec	Presentation Preparation	
16	8-Dec	Team Presentation	
	10-Dec		
	12-Dec		

Note: This is a tentative schedule, and subject to change as necessary. The instructor reserves the right to make changes to the topics or sequence of topics, schedule, assignments, grading plan, and content of the course.

Academic Integrity:

Students are expected to maintain the principles of academic integrity and conduct as defined in EIU's Code of Conduct (<http://www.eiu.edu/judicial/studentconductcode.php>). Violations will be reported to the Office of Student Standards. In this class, students may assist each other in accomplishing a homework assignment, but the submitted work must be the student's own original work. **Copying work or plagiarism will not be tolerated. Students may *not* collaborate on tests or quizzes. Cheating or plagiarism will, at least, result in a zero on the assignment or exam.**

- *AI and Academic Integrity:* Students are not allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT, Grammarly, or Dall-E 2) on assignments in this course. Each student is expected to complete each assignment without substantive assistance from others, including automated tools.

Students with Disabilities:

If you are a student with a documented disability in need of accommodations to fully participate in this class, please contact the Office of Student Disability Services (OSDS). All accommodations must be approved through OSDS. Please stop by Ninth Street Hall, Room 2006, or call 217-581-6583 to make an appointment

Emergency Preparedness Plan:

Instructions regarding procedures to follow in the event of an emergency are posted in all classrooms. Students are responsible for acquainting themselves with these instructions so that they are prepared in the event of an emergency.

The Academic Success Center:

Students who are having difficulty achieving their academic goals are encouraged to contact the Academic Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Center provides individualized consultations. To make an appointment, call 217-581-6696 or go to 9th Street Hall, Room 1302.