

## **CEE 6140 Advanced Planning and Estimating Methods**

CEE 6140-A, 3 Credits

Fall 2026

### **Instructor Information**

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Instructor: Eric Marks

Email: [ericmarks@gatech.edu](mailto:ericmarks@gatech.edu)

Office: Mason Building Room 4140C

Office Hours: Reach out to schedule an appointment with the instructor.

### **General Course Information**

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#### **Description**

Overview of advanced methods for planning and estimating construction projects including resource allocation/management, project control techniques, interpretation of schedules and estimates, and value engineering.

#### **Course Website**

Canvas.gatech.edu

#### **Course Schedule and Location**

Monday and Wednesday (9:30am - 10:45am)

Molecular Sciences and Engineering Building Room 1224

#### **Course Learning Outcomes**

This course is designed to meet the following outcomes:

- Identify the concepts and phases of project management and pre-construction planning
- Explain advanced topics in project planning including resource planning and risk analysis
- Apply common project cost control, progress measurement and earned value methods of project management
- Describe relationship types when ordering activities in a project plan
- Describe and differentiate between types of construction estimates and the role they play in the project process
- Perform estimates, including conceptual and detailed estimates for building construction
- Apply RS Means to determine project costs.
- Describe and differentiate between relationship types when ordering activities in a plan

#### **Required Course Materials**

Required Textbook: *R.S. Means Building Construction Cost Data* (2010 to 2026 is acceptable). Instructor will provide more details later in the semester. Other research

articles and industry news documents will be posted on the class website for appropriate course modules.

**Grading Policy:**

<i>Criteria</i>	<i>Weight</i>
Assignments	50%
Projects	10%
Quiz 1	10%
Quiz 2	10%
Quiz 3	10%
Quiz 4	10%

**Grading Scheme:**

<i>Percentage</i>	<i>Grade</i>
90.0 - 100.0%	A
80.0 - 89.9%	B
70.0 - 79.9%	C
60.0 - 69.9%	D
59.9% or lower	F

**Course Policies**

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**Attendance and/or Participation**

Regular attendance is expected and encouraged. Each student is responsible for all material and administrative instructions given during the lecture period. Attendance may be taken periodically throughout the semester.

**Academic Integrity**

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

**Core IMPACTS**

[Core IMPACTS](#) is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated [career competencies](#). [This resource](#) developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

### **Accommodations for Students with Disabilities**

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible to set up a time to discuss your learning needs.

### **Student-Faculty Expectations Agreement**

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

### **Quiz Policy**

Students must successfully master concepts in four areas, each representing approximately 10% of their final grade.

- 1) Schedule Types
- 2) Resource Leveling
- 3) Quantity Take-Off
- 4) Cash Flow

To demonstrate mastery of each concept, students must successfully complete a 30-minute quiz, consisting of 1-5 problems. Students must take the first offering of the quiz during class. A student can re-take the quiz during the time allotted for the Final Exam for the course to potentially obtain a higher grade. The second score will count as the quiz score. There will be many versions of each quiz and students should expect that each quiz will consist of different questions each time. Quizzes are an individual effort from each student. Students are not permitted to use notes, cell phones, or other student's materials during the quiz.

### **Assignment Policy**

Assignments will be provided throughout the semester and is an essential part of understating the course material. Completed assignments will be submitted on the Canvas course website. There will be two types of assignments: In-class assignments and take-home assignments. In-class assignments will be completed during the duration of one class period. The instructor will replace two of a student's lowest assignment scores with a perfect score. The replacement will account for instances when students need to miss class and/or deadlines for university-excused absences.

## **Attendance Policy**

Regular attendance is expected and encouraged. Each student is responsible for all material and administrative instructions given during the lecture period. Attendance may be taken periodically throughout the semester.

## **Collaboration, Group Work, and Use of Generative AI**

A student may only use generative AI programs to help generate ideas and brainstorm. A student should be aware that material generated by these programs may be inaccurate, incomplete, biased, or otherwise problematic. Use of these tools may stifle a student's independent thinking and creativity. Per Georgia Tech's Honor Code, a student may not submit any work generated by an AI program their own.

## **Campus Resources for Students**

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### **Undergraduate Student Academic Success Resources:**

- Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for your courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at [success.gatech.edu/tutoring](https://success.gatech.edu/tutoring), email us at [tutoring@gatech.edu](mailto:tutoring@gatech.edu), or come see us at Clough Undergraduate Learning Commons, Suite 283.

### **Student Well-Being:**

At Georgia Tech, we are concerned about your overall physical, social, and mental well-being. A [comprehensive list](#) of wellness related resources has been compiled and maintained by the Office of the Vice President for Student Engagement and Well-being ([student-resource-guide \(gatech.edu\)](#))