Civil & Env. Engr. Systems

Course Information

Instructor: Adjo Amekudzi-Kennedy (adjo.amekudzi@ce.gatech.edu)
Course Prefix and Number: CEE 2090 AME
Term: Fall 2026

Course Description

Infrastructure viewed from a systems perspective; planning, analytical and evaluation approaches for civil- and environmental-engineered facilities; sustainability – engineering economy, environmental and social quality of life considerations.

Course Learning Outcomes

1. **Complex Problem Solving**
    - An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, math and science.
2. **Engineering Design**
    - 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. **Communication**
    - An ability to communicate effectively with a wide range of audiences.
4. **Ethics**
    - An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental and social contexts.
5. **Teaming/Leadership**
    - 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. **Lifelong Learning**
    - An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Required Course Materials

Labi, S. Introduction to Civil Engineering Systems. A Systems Perspective to the Development of Civil Engineering Facilities.

Blank, L., and A. Tarquin. Engineering Economy. 8th Edition. McGraw-Hill Education, 2018.

Grading Policy

This course is graded on a letter grade basis with 5 homework assignments totaling 25% of the course grade, 3 exams constituting 30% of the course grade, the term project constituting 40% of the course grade, and 5% assigned for active participation in the course. The grading process is clearly articulated to the student to allow reasonable monitoring of progress towards the final grade throughout the semester.

Attendance Policy

The class meets for two 75-minute sessions during the week. Attendance is expected throughout the semester and is required for the project oral presentations.

Academic and Research Honesty/Integrity Statement

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 the Student Code of Conduct and the Academic Honor Code

Core IMPACTS

Not applicable

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services 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 in order to set up a time to discuss your learning needs.

Student-Faculty Expectations

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 articulates some basic expectations that you can have of me and that I have of you. Additional information for research-related work is given in The Expectations of Advisors and Advisees. 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.

Campus Resources

In addition to instructor and TA office hours, peer tutors are available for this course, and several others, for free in-person and virtual tutoring appointments. In addition to one-to-

one appointments and drop-in help desks in Clough, you may also connect for an online session in Knack. For more details visit https://tutoring.gatech.edu.