

CEE 1090 Syllabus

Exploring CEE, CEE 1090, 3 Credits

Instructor Information

Instructor

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General Course Information

Description

The main goal of this class is to give you opportunities to understand civil and environmental engineering issues in context, then practice using tools and strategies that you'll become more familiar with over the next several years. This course will introduce you to some of the fundamental tools and approaches used by civil and environmental engineers from across the disciplines including from groups in our School of CEE: construction and infrastructure systems engineering; environmental engineering; geosystems engineering; structural engineering, mechanics, and materials; transportation systems engineering; and water resources engineering.

Course Learning Outcomes

Upon successful completion of this course, you should be able to:

- **Understand** what civil and environmental engineers do and develop a personal connection to CEE practice.
- **Identify** the types of infrastructure, design considerations, ethical considerations, socio-enviro-cost constraints commonly encountered in CEE, and the value of CEE work for society.
- **Explain** the basic tools of CEE, including problem scoping, scenario analysis, common calculations, and communicate your thought process and experiences in writing.
- **Apply** critical thinking skills toward CEE-style problems, drawing on experience from observation, challenges, and integrating perspectives from multiple sources.
- **Understand** where to go for more information and how to curate the kinds of classes you might be interested in, the kinds of jobs you will be able to work with a CEE degree, and the kinds of problems you might be interested in working on.

Required Course Materials

None

Grading Policy:

Grades are rounded to the nearest integer number. Letter grades are assigned as follows:

- A: 90% - 100%
- B: 80% < 90%
- C: 70% < 80%
- D: 60% < 70%
- F: < 60%

Assignments

- Attendance and Participation: 5%
- Introduction Paragraph: 5%
- In-studio assignments: 25%
- Group projects: 25%
- Scavenger Hunts: 10%
- Module Reflections: 20%
- Final Reflection: 10%

Description of Graded Components

- **Individual work:** The introduction paragraph, scavenger hunts, and all reflections should be completed individually outside of class.
- **Studio work:** In-studio assignments are to be completed during the designated studio session. Collaboration is encouraged. You must be in attendance to receive credit. A makeup assignment is possible only in the event of an absence approved in advance of the class (see attendance policy).
- **Group projects:** While group projects are assigned in studio and include some dedicated class time for collaboration, additional work outside of class will be necessary. Group members are expected to formalize expectations for each member, including meeting times and contributions, communicate effectively, and contribute according to those agreed-upon standards. Any problems with group dynamics that members cannot resolve independently should be brought to the attention of the TA before, not after, a project is due. Although all group members typically receive identical grades for a project, instructors and TAs reserve the right to withdraw credit from students who do not meet group expectations.
- **We do not accept late assignments.** This applies to every assignment in the course and to every student. Issues such as technical difficulties, memory lapses, and any other

personal planning challenges do not qualify as exceptions to this rule. If you have a major multi-week issue preventing you from completing assignments (e.g., long-term hospital stay), contact the module instructor and your TA to discuss potential alternative assignments.

Course Policies

GETTING HOMEWORK HELP OR THE LIKE: We will be using Piazza. This Canvas-based system is highly catered to getting you help fast and efficiently from classmates and the TA. Rather than emailing questions to the teaching staff, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com.

Generative AI Policy: In this course, using generative AI tools in the work of the course (including assignments, discussions, ungraded work, etc.) is allowed only in instances specified by the instructor(s).

As with any technology, generative AI tools need to be used critically and according to academic and professional expectations. Thus, in instances in which the instructor(s) allows generative AI tool use, you are expected to adhere to these principles:

Responsibility: You are responsible for the work you submit. In instances in which your instructor(s) allows generative AI tool use, this means that any work you submit should be your own, with any AI assistance appropriately disclosed (see “Transparency” below) and any AI-generated content appropriately cited (see “Documentation” below). This also means you must ensure that any factual statements produced by a generative AI tool are true and that any references or citations produced by the AI tool are correct.

Transparency: Any generative AI tools you use in the work of the course should be clearly acknowledged as indicated by the instructor(s). This work includes not only when you use content directly produced by a generative AI tool but also when you use a generative AI tool in the process of composition (for example, for brainstorming, outlining, or translation purposes).

Documentation: You should cite any content generated by an AI tool as you would when quoting, paraphrasing, or summarizing ideas, text, images, or other content made by other people.

Using generative AI tools at times not allowed by the instructor(s) will be considered an infraction of the Georgia Tech Honor Code subject to investigation by the Office of Student Integrity. Likewise, using generative AI tools in the course without adhering to these principles will be considered an infraction of the Georgia Tech Honor Code subject to investigation by the Office of Student Integrity.

SAFE SPACE AND DIVERSITY STATEMENT: All persons will be respected and should feel comfortable to ask whatever questions they have. Furthermore, this classroom environment is a place where you will be treated with dignity and respect, welcoming individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability and other visible and non-visible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member. Please feel free to schedule office hours with the Instructor(s) if there is a concern or question you feel needs to be asked privately.

Here are some inviting actions that can help provide a comfortable environment (please see below):

- Let the Instructor(s) know your name or pronouns if they have been mistaken.
- Let the Instructor(s) know if something that is happening in class has made you uncomfortable, even if the Instructor(s) is presumed to be the primary reason for your discomfort.

HONOR CODE: Academic integrity is expected of all students. Anyone suspected of cheating or plagiarizing – such as on individual homework assignments and exams - can be reported to the Office of Student Integrity, which would investigate the incident and identify the appropriate penalty for violation. It is important to note that suspicion of cheating and plagiarizing differs when group project work is developed and/or submitted. The Instructor(s) expects shared writings and content in the context of specified group project work.

For any questions involving these matters or any other Academic Honor Code issues, please ask the Instructor(s) during office hours, [this link](#), or [this one](#).

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES: If you require special accommodation(s), please contact the Office of Disability Services at (404) 894-2563 or via [this link](#) as soon as possible. Through this, an appointment should be made to discuss your particular needs and to obtain an accommodations letter. Please email the Instructor(s) soon after receipt to discuss.

RECORDINGS OF CLASS SESSIONS: Classes may not be recorded by students without the express consent of the Instructor(s) unless it is pursuant to an accommodation granted by the [Office of Disability Services](#). Class recordings, lectures, presentations, and other materials posted on Canvas are for the sole purpose of educating the students currently enrolled in this course.

Students may not record or share the materials or recordings - including screen capturing or automated bots - unless the Instructor(s) gives explicit permission. Digitally proctored exams may require students to engage the video camera, but those recordings will not be shared with or disclosed to others without consent unless legally permitted.

- For classes where participation is voluntary, students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded.

- For classes requiring class participation, if students are identifiable by their names, facial images, voices, and/or comments, written consent must be obtained before sharing the recording with persons outside of who is currently enrolled in the class.

ILLNESS CONSIDERATIONS: Please refer to the [Student Absence from Class Due to Illness or Personal Emergencies](#) resource.

OFFICE HOURS: You are encouraged to use Instructor(s) Office hours. When doing so, please keep these principles in mind: (1) Make sure you have read the assigned material(s) and attempted the work before seeking assistance from the Instructor(s) (e.g., please use [Piazza and the other Canvas resources](#) for this); (2) Asking for help early is always better than asking later; and (3) When asking for an appointment outside of the standing in-person office hours, please speak with the Instructor(s) in-person before or after class time, if at all possible, and email the Instructor(s) with at least three date-time options.

We will use Piazza for course questions and discussion. For class topics, we will check Piazza more consistently than email, so please try Piazza first if you have a question. You and your classmates can answer Piazza questions too, so Piazza is almost always the fastest way to get what you need. You may post without your name visible. The class Piazza page is accessible directly through Canvas (see the sidebar).

PERSONAL SUPPORT RESOURCES: There are a multitude of resources available to you. You are encouraged to utilize these resources at your leisure or when you feel they are needed. A listing of some are: the [Counseling Center](#), [STAR Services](#), [Stamps Health Services](#), [Veterans Resource Center](#), and the [Georgia Tech Police](#) (call 404-894-2500).