

CEE4620 Syllabus

Environmental Impact Assessment, Section A, 3 Credits

Summer 2026

Instructor Information

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General Course Information

Description

Environmental Impact Assessment (CE4620) explores the policy, planning, and methods that are critical in assessing the environmental impacts of engineering systems. The course emphasizes the regulatory aspects of environmental analysis as well as analytical techniques employed in environmental impact assessment. The course emphasizes the incorporation of environmental considerations into engineering. The course materials, policy readings, and environmental impact modeling discussions present sufficient detail for students to apply the concepts to a variety of major engineering projects.

Course Learning Outcomes

Students learn the basic policy relationships between Federal and State Laws, Federal and State Regulations, and Agency Guidance Documents. The textbook and lectures convey knowledge associated with the implementation of the National Environmental Policy Act, and how NEPA interrelates with other federal and state laws and regulations, such as the National Historic Preservation Act, Endangered Species Act, and Clean Water Act. Students learn how Categorical Exclusions are developed and how Environmental Assessments and Environmental Impact Statements are prepared. Students obtain hands-on experience in transportation and air quality modeling. The course prepares students for an entry-level agency or consulting position in NEPA implementation.

Required Course Materials

The course textbook is *The NEPA Book: A Step-by-Step Guide on How to Comply with the National Environmental Policy Act (2nd Edition)* by Bass, Herson, and Bogdan (Solano Press Books). The 2nd Edition is out of print, but you can check out a copy of the book from

the library reserves for the semester. The Canvas site /Files directory contains additional readings and links to all assignments. Reading is fundamental in public policy engineering education. There is a large amount of assigned reading, so plan accordingly.

Grading Policy:

The course grade is based upon 90% (A), 80% (B), 70% (C), 60% (D), 0-59% (F). At Georgia Tech, final course grades are awarded on a scale of A-F with no +/- grades permitted.

Description of Graded Components

The cumulative point total in the class come from the following assignments:

- Midterm (20%): In-class written exam on NEPA policy, law, regulations, etc.
- EIS Assessment Group Project (24%): Student teams assess the content of a current EIS. Teams must submit a process flow diagram for the EIS project a couple of weeks after the assignment begins (this submission counts as part of the grade).
- Environmental impact modeling assignment (24%): Student teams use modeling tools to assess the air quality and noise impacts of a transportation corridor. Teams must submit a transportation system overview description a couple of weeks after the assignment begins (this submission counts as part of the grade).
- Short assignments (12%): Students prepare three, two-page short summary reports that relate an experience to class concepts (e.g., historic property, ESA, wetland delineation, etc.). Graded, 10-minute pop quizzes will also be given in class every few weeks, to provide paragraph-writing practice for the midterm and final.
- Final Exam (20%): Comprehensive exam taken during the final exam period.

Course Policies

Attendance and/or Participation

In accordance with USG policy, the course mode is in-person. Students are required to attend this class. However, if you are ill, please stay home. We will work with you to accommodate absences and help you catch up on missed material.

Students must submit electronic copies of all assignments through Canvas. The in-class midterm and final exam will either require the use of a Bluebook (hand-written) or the use of Microsoft Word® on your portable computer. All reports for this class must be submitted as Word documents (PDFs will not be graded) and teams will also submit any Excel spreadsheets and model input and output files used in assignments via Canvas. Assignment grading is standardized, with points awarded in accordance with pre-posted rubrics for each assignment. The group paper and modeling assignments must conform

with the Writing Guidelines (checklist posted in Canvas). Please spell-check and grammar-check every file before uploading to Canvas.

Check your e-mail and Canvas announcements regularly. In accepting any online meeting invitations, please check the “Do Not Send a Response” box. Always put “CE4620” in the subject line of all e-mail communications related to the course.

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. You are required to conform to the [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 referred to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, please [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. Send an e-mail the professor 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](#) website articulates some basic expectations that we have of each other. Simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Please remain committed to the ideals of Georgia Tech while in this class.

Extra Credit Opportunities

If a significant number of students do not perform well on the first in-class blue book midterm exam, the instructor will consider offering an extra credit assignment that could yield up to ten additional points toward the final course grade.

Collaboration, Group Work, and Use of Generative AI

Students are prohibited from using AI while taking any in-class exams and quizzes. The use of AI on group projects is limited to applications that are specifically defined in the text of each assignment. Use of AI that does not conform with these standards will be referred to the to the Office of Student Integrity.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Late assignments are not accepted and missed exams cannot be re-taken unless the student has an official university-approved absence. In compelling cases, such as a job interview, an alternative exam date or assignment due date can be arranged in advance.

Inclement Weather and Digital Learning Days

On official inclement weather and digital learning days, the instructor will announce via Canvas whether we will cancel class or pivot to digital instruction. Please check announcements on those days.

Student Use of Mobile Devices in the Classroom

Students may use computers and cell phones in class only to access the Canvas site.

Additional Course Policies

Students may not record class lectures.

Campus Resources for Students

Undergraduate Student Academic Success Resources:

GT Academic Success and Advising provides student support. 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 them online at success.gatech.edu/tutoring, email them at tutoring@gatech.edu, or drop by 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](#).