

**CEE 4801 – Diversity, Equity and Inclusion in Civil and Environmental Engineering  
Spring 2022**

**Meeting Times:** Wednesdays, 5pm-5.50pm  
**Classroom:** Mason 3132  
**Office hours:** Wednesdays and Thursdays 1pm-2pm via Blue Jeans:  
<https://bluejeans.com/842917436/0480>

To meet students' requirements, needs, and comfort levels, office hours will be offered in-person upon request. To schedule in-person office hours, please send an email to Dr. Arson <[chloe.arson@ce.gatech.edu](mailto:chloe.arson@ce.gatech.edu)>.

**Description:** This course aims to expose students to issues of Diversity, Equity and Inclusion (DEI) specific to Civil and Environmental Engineering (CEE). While students have opportunities to receive training on matters of diversity and equity, there are few venues to apply and implement actionable items to improve DEI in the workplace. The course contents will vary from semester to semester depending on the current DEI issues encountered in society, on campus and in the CEE professional communities. To start, it is anticipated that the following topics will be covered: the viewpoint of U.S. CEE professional associations on DEI matters; equity in transportation and urban planning; environmental justice; accessibility of infrastructure for physically disabled persons; LGBTQ+ inclusion in CEE; venues for DEI engagement in the profession; campus DEI policies (and how to make a difference in the School of CEE). The class will meet once a week, alternating between talks by invited speakers with expertise in one of the topics above, and roundtables during which students will debate on the issues presented by the speakers under a set of ground rules established by the instructor and the students at the beginning of the semester, under the mentorship of one of the members of the CEE Committee on Diversity and Inclusion (CDI). Roundtables will be held in person (pandemic permitting). Talks will preferably be given in person, but a remote option will be offered to off-campus speakers. Talks will be streamed online synchronously, open to the whole CEE community and recorded (if speakers agree).

**The instructor:** Dr. Arson holds a Ph.D. in civil engineering (geomechanics) from Ecole des Ponts Paris Tech (France, 2009) and a two-year college degree in philosophy from Université Paris I Panthéon-Sorbonne (France, 2003). She earned certificates in *Introduction to Environmental Law and Policy* from the University of North-Carolina at Chapel Hill (2020) and in *Gender and Sexuality: Applications in Society* from the University of British Columbia (Canada, 2020). Dr. Arson also took the following trainings at Georgia Tech: Safe Space (2015), implicit bias (2016), adaptive leadership (2018), QPR suicide prevention (2019), Trans 101 (2019), Level Up – Advanced Allyship course - Part 1/2 (2021).

**Pre- and Co-requisites:** This course is meant to be open to undergraduate and graduate CEE students: this is a stacked course, mostly aimed for transfer junior/senior undergraduate students who are not targeted by the RED program and master students just starting graduate school.

**Course Goals and Learning Outcomes:**

1. Increase the sentiment of belonging to CEE among students who are new to Georgia Tech;
2. Educate on DEI issues;
3. Bring awareness to DEI issues in the CEE workplace;
4. Celebrate role models from Under-Represented Minorities (URMs) in CEE.

**Course Materials:**

No textbook is required. Reading material will be distributed during the semester based upon the recommendations of the invited speakers, in consultation with the instructor. Most of the resources developed or shared for this course (documents in electronic format, talk recordings, announcements, assignment submission platform, quizzes) will be made available on a Canvas website that will be designed for this course.

**Tentative Course Schedule:**

Week	Date	Theme and Speaker/Moderator
1	01/12/2022	Course ground rules Introduction to LGBTQ allyship Instructor: Dr. Chloé Arson
2	01/19/2022	Talk: LGBTQ+ (in)visibility in CEE Speaker: <b>Dr. Michael Falk, Johns Hopkins University</b>
3	01/26/2022	Talk: Transportation: a means to enhance or alleviate discrimination Speaker: <b>Jacob Tzegaegbe, Expansion at Via</b>
4	02/02/2022	Roundtable: Equity in transportation and urban planning Possible moderator: Dr. Kari Watkins
5	02/09/2022	Talk: How environmental justice changed after the Flint catastrophe Speaker: <b>Dr. Lindsey Butler, Blue Cross Blue Shield of Massachusetts</b>
6	02/16/2022	Roundtable: The role of engineers in protecting from harms of pollution Possible moderator: Dr. Jorge Macedo
7	02/23/2022	Talk: Gender equity in energy access Speaker: <b>Dr. Paulina Jaramillo, Carnegie Mellon University</b>
8	03/02/2022	Roundtable: Gender equity in the food-water-energy nexus Possible moderators: Renee Rios and Christin Salley
9	03/09/2022	Talk: Accessibility to urban infrastructure for physically disabled persons Speaker: <b>Maria Sotnikova, Atlanta Regional Commission</b>
10	03/16/2022	Roundtable: Wheelchair accessibility to Atlanta infrastructure Possible moderator: Dr. Neda Mohammadi
	03/23/2022	<i>Spring Break</i>
11	03/30/2022	Talk: Assessing and improving climate on engineering campuses: UCLA case study Speaker: <b>Dr. Scott Brandenburg, University of California in Los Angeles</b>
12	04/06/2022	Roundtable: DEI engagement opportunities at Georgia Tech Possible moderator: Dr. Robert Simon
13	04/13/2022	Talk: Diversity and inclusion in civil and engineering consulting Speaker: <b>Bing Zhang or other engineer from Kimley-Horn</b>
14	04/20/2022	Roundtable: Diversity and inclusion in the civil and environmental industry Possible moderator: Danielle Ramirez

## Course Requirements and Grading:

### Description of Graded Components

<i>Assignment</i>	<i>Score weight for undergrads</i>	<i>Score weight for grads</i>
Attendance & participation	25%	25%
Essays	3 essays @ 25% each	2 essays @ 25% each
CEE course activity for DEI		25%

**Attendance and participation** will be assessed through punctuality to class (I will pass a presence sheet around), questions/comments at the end of the talks and during the round tables and participation in occasional pop-up surveys.

**Essays:** You will write an essay on current DEI issues, challenges specific to CEE, existing resources and possible avenues for change on some of the topics covered in the course (2 topics for graduate students, 3 topics for undergraduate students). You are free to choose the topics to write on from the list of seven themes covered during the semester. The expected length of the essay is 1,000 words excluding references and illustrations. Essays will be due two weeks after the related talk. See the essays' syllabus available on the course website for details.

**CEE course activity for DEI (grads only):** You will develop a class activity that can be implemented in a CEE course and that will challenge students to think about DEI issues in CEE design and in the engineering profession. Example activities include, but are not limited to: design assignments that pertain to wheel chair accessibility, comparative study of environmental policies, group work activities with periodic surveying of teams' sense of inclusion, toolkit for best practices when developing a course syllabus or website, handbook of campus resources usable in course websites, course project with a history component acknowledging the participation/lack of participation of URMs.

### Extra Credit Opportunities

If you are interested, you may propose to write an extra essay, prepare a report or make a short film (web format) on a topic relevant to the course for extra credit. Extra credit will not exceed 25% of the grade. You will need to request approval and work with your instructor on assignment requirements and grading rubrics. The topic of the extra assignment will need to be aligned with the focus of this course (DEI issues in CEE).

### Grading Scale

Your final grade will be assigned as a letter grade according to the following scale:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F 0-59%

You will be able to take the course for a pass/fail grade instead of a letter grade. If you opt for a letter grade, you will be allowed to take this course up to three times to cumulate credits that will count towards your degree.

## Course Expectations & Guidelines

### 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. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/> or <http://www.catalog.gatech.edu/rules/18/>. Any student suspected of cheating or plagiarizing on a quiz or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

### **Attendance and/or Participation**

Because guest speakers make a special effort to deliver talks for the class, and because this course revolves around debates, attendance to the talks and participation in the roundtables is mandatory. If you are excused by the Dean of Students for missing a class, it is your responsibility to watch the talk recordings (which will be posted on Canvas) and to contact the instructor and classmates to make up for the discussions that occurred during any missed roundtable.

### **Student Use of Mobile Devices in the Classroom**

During the talks, please be mindful of others and switch off your electronic devices. No recording is allowed during class.

### **Collaboration & Group Work**

Collaboration on homework is encouraged. However, all assignments (quizzes, essays and course projects) are individual. Plagiarism will not be tolerated. You will not be judged because of your ideas. Your work will be assessed based on the robustness of your reasoning, the quality of your sources, and the organization of your argumentation. Dedicated grading rubrics will be posted online for the essays.

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

Please contact the instructor before your assignments are due if you need a deadline extension. A penalty of 5% off per late day will be applied for approved late submissions. Late submissions not approved by the instructor will be given half credit. No penalty will be applied if you have an excuse approved by the Dean of Students.

## **Class Ground Rules**

### **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. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of 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.

### **Diversity Statement**

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

### **Safe Zone Statement**

I am a member of a Safe Zone Ally community network, and I am available to listen and support you in a safe and confidential manner. As a Safe Zone Ally, I can help you connect with resources on campus to address problems you may face that interfere with your academic and social success on campus as it relates to issues surrounding sexual orientation and gender identity. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. My goal is to help you be successful and to maintain a safe and equitable campus.

## **Campus Resources for Students**

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

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, 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.

### **Dean of Students Office, CARE Center, Counseling Center, Stamps Health Services, and the Student Center**

The [CARE Center](#) and the [Counseling Center](#), Stamps Health Services, and the Dean of Students Office will offer both in-person and virtual appointments. Student Center services and operations are available on the [Student Center](#) website. For more information on these and other student services, contact the Dean of Students or the [Division of Student Life](#).

### **Information Related to Covid-19**

Students are expected to be familiar with and abide by the Institute guidelines, information, and updates related to Covid-19. Find campus operational updates, Frequently Asked Questions, and details on campus surveillance testing and vaccine appointments on the [Tech Moving Forward site](#).