

# CEE 8097: Introduction to Transportation Research

Fall 2020 | Location: Online | Time: W: 2:00-2:50P | Credit: 1 hour

**Adjo Amekudzi-Kennedy, Ph.D., Professor**

Email: [adjo.amekudzi@ce.gatech.edu](mailto:adjo.amekudzi@ce.gatech.edu) | Tel: 404-385-5418 | Office Hours: By appointment

## Course Objectives

This course is for M.S. and Ph.D. students entering the Transportation Systems Program in the School of Civil & Environmental Engineering (CEE) at Georgia Tech. The course has three main objectives to:

- (1) Introduce you to transportation research and the responsible conduct of research (RCR);
- (2) Familiarize you with the requirements for obtaining an M.S. or Ph.D. degree; and,
- (3) Introduce you to resources to support your academic, professional and general success in graduate school.

RCR training is central to Georgia Tech's mission to ensure that students are prepared with the knowledge and skills necessary to conduct themselves professionally and with integrity. CEE 8097 serves as the Transportation System Engineering (TSE) Program's in-house RCR training approach. By completing this course successfully, you will fulfill the RCR requirements for doctoral students and master's thesis students ([www.rcr.gatech.edu](http://www.rcr.gatech.edu)). The RCR topic areas are: (1) Authorship & Publication; (2) Collaborative Research; (3) Conflicts of Interest; (4) Data Management; (5) Environmental and Laboratory Safety; (6) Human Subjects Research; (7) Humane Use and Care of Vertebrate Animals in Research; (8) Peer Review; (9) Research Misconduct; (10) Responsibilities of Mentors and Trainees; (11) Science and Engineering in Society. With the exception of (7), this course covers all RCR topics areas through a series of lectures and assignments given by the TSE Program faculty; in-house communications and leadership faculty; GT Library staff, faculty in the School of Public Policy and the Center for Ethics and Technology, and staff in GT's Office of Research Integrity Assurance. (See topical outline).

## Course Evaluation

Your course grade will be based on your performance in the following assignments and requirements:

1. Assignment 1: Review CEE Graduate Handbook | Y/N
2. Assignment 2: Review Chapters 1, 3, 5 and 7 of "How to Get a Ph.D.", Phillips and Pugh, 2015 | Y/N
3. Assignment 3: View Video: CEE Panel Discussion on Race | Y/N
4. Assignment 4: Develop list of references using Transportation Research Board style | 5%
5. Assignment 5: Complete RCR CITI Certification (Online Course/Exam) | 25%
6. Assignment 6: Complete Midterm Take Home Exam | 25%
7. Assignment 7: Complete Human Subjects Certification (Online Course/Exam) | 25%
8. Assignment 8: Identify high-impact peer-reviewed journals for your research | 5%
9. Assignment 9: Attend the Georgia Transportation Institute (GTI) Seminar Series | 10%
10. Assignment 10: Attend/participate in class | 5%

## Required Text/Materials

- *How to Get a PhD: a Handbook for Students and their Supervisors*, by Estelle M. Phillips, Colin Johnson, and Derek S. Pugh, ©2015 (6<sup>th</sup> edition) [Electronic version available at GT Library]
- Handouts and supplementary materials on Canvas.

## Course Conduct & Special Accommodations

Georgia Tech's Academic Honor Code is the standard of conduct for this course. Review the Academic Honor Code at <http://osi.gatech.edu/content/honor-code>. Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you need a classroom accommodation, please make an appointment with the Office of Disability Services (<http://disabilityservices.gatech.edu/>) to review the appropriate procedures, and notify the instructor of any needed accommodations during the first week of class or as soon as a new need arises.

## Attendance Policy

You are expected to attend every class. You are also required to attend the GTI Seminar Series. To fulfill the Institute's RCR requirements, you must attend RCR classes for at least 4 hours (M.S.) or 8 hours (Ph.D.). To achieve the overall course objectives you must attend every class. You must consult with the instructor if it will be necessary for you to be absent from any class.

## Topical Outline

Wk.	Date	Topics	Assignments
1	08/19	<b>Course Overview   Leading &amp; Managing Yourself &amp; Others in Graduate School   Some Resources</b> - Dr. Adjo Amekudzi-Kennedy <i>RCR topic: 10</i>	<i>Assignment 1:</i> Review CEE Graduate Handbook
2	08/26	<b>CEE M.S. &amp; Ph.D. Degree Requirements</b> – Mr. Anthony Gallego, Graduate Programs Manager, Civil & Environmental Engineering	<i>Assignment 2:</i> Review “How to Get a PhD” Chapters 1, 3, 5 & 7
3	09/02	<b>Ethical Responsibilities of Researchers and the Responsible Conduct of Research</b> - Dr. Adjo Amekudzi-Kennedy <i>RCR topics: 3, 11</i>	<i>Assignment 3:</i> View the Video: CEE Panel Discussion on Race (June 10, 2020)*
4	09/09	<b>Discussion: Social Justice/Equity, COVID-19 and Research</b>	
5	09/16	<b>Effective Use of Library and Internet Resources in Transportation Research</b> - Ms. Lisha Li, CEE Subject Librarian <i>RCR topic: 1</i>	<i>Assignment 4:</i> Develop List of References using TRB Style
6	09/23	<b>Research Misconduct</b> - Dr. Jason Borenstein, Center of Ethics and Technology/School of Public Policy <i>RCR topic: 9</i>	<i>Assignment 5:</i> Complete CITI RCR online course/exam+
7	09/30	<b>Team Effectiveness</b> - Dr. Robert Simon, Leadership Development, Civil & Environmental Engineering <i>RCR topic: 2</i>	<i>Assignment 4 Due</i>
8	10/07	<b>Midterm Take Home Exam</b>	<i>Assignment 6: Midterm Take Home Exam</i> <i>Assignment 6 Due</i>
9	10/14	<b>Team Health</b> - Dr. Robert Simon, Leadership Development, Civil & Environmental Engineering <i>RCR topic: 2</i>	<i>Assignment 5 Due</i>
10	10/21	<b>Human Subjects</b> - Ms. Melanie Clark, IRB Staff, Office of Research Integrity Assurance <i>RCR topic: 6</i>	<i>Assignment 7:</i> Complete Human Subjects Certification online#
11	10/28	<b>Transportation Research: Environmental &amp; Lab Safety</b> - Dr. Michael Rodgers <i>RCR topic: 5</i>	
12	11/04	<b>Graduate Student Panel: Advanced M.S./Ph.D. TSE Students</b> David Ederer, Ali Etezady, Rupa Anne, Rebecca Kiriazes	<i>Assignment 7 Due</i>
13	11/11	<b>Journal Publication and Peer Review</b> - Dr. Adjo Amekudzi-Kennedy <i>RCR topics: 1, 8</i>	<i>Assignment 8:</i> Identify high-impact peer-reviewed journals
14	11/18	<b>Forming and Managing Your Dissertation Committee</b> - Dr. Adjo Amekudzi-Kennedy <i>RCR topics: 3, 10</i>	<i>Assignment 8 Due</i>
15	11/25	<b>No Class Meeting: Thanksgiving Holiday</b>	
16	12/02	<b>No Class Meeting: Exam Period</b>	

\* <https://ce.gatech.edu/news/video-cee-panel-discussion-race/> | [+rcr.gatech.edu/online-training/](https://rcr.gatech.edu/online-training/) |  
# <https://researchintegrity.gatech.edu/irb>

Disclaimer: Elements of the course may change during the semester. Changes will be announced in class. [8/15/2020]

### **Additional Considerations**

The fall 2020 semester is an unusual one due to the COVID-19 pandemic and a growing awareness of racial inequities. My goal is to provide a wonderful online learning environment for you. This will happen with your help. Give me feedback on what works better as we move forward and let us aim to have a high quality, supportive and fun learning environment.

**Course Modality:** The course will occur through live synchronous broadcast with specific assignments to be completed asynchronously.

**Class Participation Expectations:** I expect you to attend and participate in class synchronously. However, I understand that circumstances may arise in which you may not be able to participate synchronously. In such cases, email to let me know. There will be provisions for you to complete the particular class or classes asynchronously. Actively participating in the course will contribute to an enhanced learning experience for you and all course members.

**Learning Management System:** The course website is up on Canvas. I will post all class materials on the course website or links to appropriate material online.

**Graded Elements:** I expect you to do your best to submit assignments as per the syllabus. However, situations may arise where you may need more time to complete and submit assignments because of health-related or other issues. Simply email me in those situations for accommodations appropriate to your particular situation. The midterm will be a take-home exam. All course assignments will be submitted electronically via Canvas.

**Digital Etiquette:** I expect you to turn your cameras on at the beginning of the class, and during Q&A and discussion sessions. In the unlikely event that I, or any of the other instructors, lose connection to the Internet, we will work to regain connection quickly and continue with the class.