

CSE 8803: Data Science for Epidemiology

Course Information

Instructor: Bodicherla Aditya Prakash (badityap@cc.gatech.edu)

Course Number: CSE 8803

Term: Fall 2026

Location/Time: TBD

Office Hours: TBD

Course Description

This course introduces data science techniques for understanding and modeling the spread of diseases. Students will learn how epidemiological processes can be studied using network science, machine learning, and data-driven approaches.

Course Learning Outcomes

Students will be able to:

- Understand epidemiological models
- Analyze disease spread using data science
- Apply models to real-world data
- Critically evaluate literature
- Communicate findings effectively

Required Course Materials

No required textbook. Materials will be provided.

Grading Policy

Assignments: 30%

Participation: 15%

Midterm/Quizzes: 15%

Final Project: 40%

Attendance Policy

Students are expected to attend and participate in all lectures.

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, especially Appendix A: Graduate Addendum to the Academic Honor Code.

Students are expected to perform research in an ethical and responsible manner.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct.

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.

Mental Health and Wellness

Students are encouraged to use campus mental health resources if needed.

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.

Use of AI Tools

Use of AI tools must follow course guidelines and all work must be understood by the student.

Campus Resources

Students are encouraged to use academic and counseling resources available at Georgia Tech.

Core IMPACTS

Not applicable.