# ISYE 3770 Syllabus

Title: Statistics and Applications

Section: T17

Credits: 3

CRN: 94174

Semester: Fall 2026

## Instructor Information

**Instructor: TBA**

This course introduces the basic notions of probability and statistics such as elements of set theory, combinations and permutations, Kolmogorov probability theory, random variables, inferential statistics, and regression analysis.

**Email:** TBA

## General Course Information

**Description Course Learning Outcomes**

- Develop the ability to apply basic concepts of set theory, combinations, and permutations to count and organize outcomes in probability problems.
- Develop the ability to use Kolmogorov's axioms of probability to model random experiments and compute probabilities of events.
- Develop the ability to work with random variables and probability distributions to describe and analyze uncertainty in data.
- Develop the ability to apply basic concepts of probability and solve for applied problems.

**Required Course Materials**

- Class notes and handouts
- Applied Statistics and Probability for Engineers by Douglas C. Montgomery, George C.

Runger, 5th Edition, 2010, John Wiley and Sons.

**Grading Policy:**

Midterm=30%; Final test=40%; In-class quizzes=15%; Homework=10%; In-class attendance=5%

A>90; B>80; C>70; D>60

### *Assignments*

- Homework, 10%
- In-class quizzes, 15%
- Midterm, 30%
- Final test, 40%

**Description of Graded Components**

All exams are closed book and notes, but an equation sheet allowed. In-class mini-quizzes (10 minutes) will be administered weekly starting in week 3 (~12 quizzes). Answers must be submitted by the end of the quiz via Canvas using smart-phones or laptops. For late submissions Canvas assigns automatically a zero-grade. The instructor can cancel a scheduled quiz with a minimum of 3 days' advance notice.

Homework grading: *all problems must be solved and posted on CANVAS by due time*, and 100 points if (and only if) one problem randomly graded is correctly solved. No partial grading for incorrect or incomplete solutions. I expect to receive your submissions posted on CANVAS by the due time; otherwise, CANVAS automatically sets a zero grade for late submissions.

## Course Policies

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**Attendance and/or Participation**

This will be an active classroom, where you will be expected to participate. I have noticed a drastic difference in the exam performance between students who regularly attend class and those who don't. Therefore, I will count attendance in determining your final grade. If you miss less than 5 classes, you will receive 5% toward your grade. Signatures will be collected in class.

**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. Review 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 reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

**Core IMPACTS**

Core IMPACTS is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated career competencies. This resource developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

**Accommodations for Students with Disabilities**

If you are a student with learning needs that require special accommodation, 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. Please also e-mail me as soon as possible in order 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 articulate 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.

**Collaboration, Group Work, and Use of Generative AI**

You are allowed to work in groups on all homework, but any work you turn in must be written in your own hand. In-class tests and exams are to be your own work.

Use of AI tools (e.g., ChatGPT, Claude, etc.) is permitted for learning support or reviewing material. However, all submitted work must reflect your own understanding. You must not submit AIgenerated solutions as your own. Use of AI tools during quizzes and exams is not allowed.

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

Make-up exams are given for illness, approved Institute activities or religious observances.

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

The use of phones, laptops, and other electronic devices is not permitted during class time to minimize distractions and support an engaged learning environment. Exceptions may be made only with prior instructor approval for course-related purposes. The use of phones, laptops, and other electronic devices is not permitted during exams.

**Student Well-Being**

At Georgia Tech, we are concerned about your overall physical, social, and mental wellbeing. 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 (studentresource-guide).

We will practice 5-min meditation at the beginning of class. Introducing meditation in the classroom can positively impact students' well-being by promoting relaxation, focus, and emotional regulation. It can help reduce stress and improve concentration, leading to a more conducive learning environment.