

# MATH 3670 (N) Probability and Statistics with Applications

Fall 2026 Syllabus

## Contact Information

Instructor: Ikenna Nometa

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Grader: TBD

Grader Office Hour: TBD @ Clough 280; Grader's Email: TBD@gatech.edu

## Course Information

Lecture Time: TR 03:30 PM - 04:45 PM

Delivery Method: In-person lectures

Location: Skiles 249

Course Prerequisite: MATH 2401 or MATH 24X1 or MATH 2411 or MATH 2551 or MATH 2561 or MATH 2550 or MATH 2X51 or MATH 2605.

Textbook: Introduction to Probability and Statistics for Engineers and Scientists, Sheldon M. Ross, 6th edition, Elsevier

*This book is available online for free for Georgia Tech faculty, students, and staff. You may have to use your Georgia Tech login credentials to access the book here.*

[Introduction to Probability and Statistics for Engineers and Scientists (Free for GT Users)](<https://www.sciencedirect.com/book/9780128243466/introduction-to-probability-and-statistics>)

**Course Description:** This is a **fast-paced** introductory course on basic concepts and techniques in probability and statistics. The following topics from the course catalog will be covered: basic definitions, counting techniques, conditional probability, expected value, continuous random variables, multivariate distributions, the central limit theorem, maximum likelihood, optimal and unbiased estimators, confidence intervals, and hypothesis testing.

## Communication

I will frequently make announcements throughout the semester. You are responsible for any announcements or materials posted on Canvas (canvas.gatech.edu). Students are encouraged to install the Canvas app on their phones and keep notifications turned on. When you email me, please include [Math 3670] in the subject line. You can also message me on Canvas. This will help me respond promptly.

## Gradescope

We will use Gradescope to manage assignments/assessments. Feedback on your submitted work will also be made available to you over Gradescope. You are encouraged to download the mobile

app and familiarize yourself with uploading handwritten material. More information can be found in the [Gradescope Submission Guide](https://gradescope-static-assets.s3-us-west-2.amazonaws.com/help/submitting\_hw\_guide.pdf).

### **Attendance**

Students who miss class meetings are responsible for any assignments or announcements made during missed lectures.

### **Grading Policy**

Your final grade is a weighted sum of your grades on quizzes, two midterms, and the final.

$$G = 0.15 \times \text{HW} + 0.45 \times \text{M} + 0.10 \times \text{P} + 0.30 \times \text{F} + \text{E}$$

Here is a breakdown of the grading components:

- G: Your total grade for the course
- HW: Homework assignments
- M: Midterm grades (average of three midterms)
- P: Project grade (see details below)
- F: Final exam grade
- E: Extra credit (up to 4% of your total grade)

An incomplete (an 'I') is assigned when a student was doing satisfactory work but was unable to meet the full requirements of the course for nonacademic reasons beyond their control and deemed acceptable by the instructor. If the student's performance is so poor as to preclude a passing grade, the instructor shall assign an F.

A regrade request should be made in writing within 72 hours of the exams being returned to students. Note that when turning in a regrade request, your entire assessment will be subject to regrade, not just a single problem. In addition, a regrade request can result in points being deducted from or added to your assessment.

The usual ten-point scale will be used for letter grades:

**A:** [90, 100), **B:** [80, 89), **C:** [70, 79), **D:** [60, 69), **F:** [0, 59).

### **Homework**

**You are strongly encouraged to complete the homework exercises, as they will prepare you for midterms.** Problems on these assessments will be comparable in difficulty and rigor to those on homework. Your lowest homework will be dropped from the final grade calculation.

Weekly homework assignments will be posted on Gradescope, and students are to submit their responses electronically. For each assignment, a subset of problems will be graded. There will be supplemental problems in each assignment, which students are encouraged to work out as well.

The homework submission deadline is 11:59 pm on the due dates and is strict. **Late homework will not be accepted for any reason.**

You are encouraged to work together on the homework assignments. You should, however, make sure that you understand and can reproduce any work that you turn in. If you do so, please list the names of all collaborators in your group.

## Exams

There will be 3 midterm exams and a final. All exams will be given in lectures. The final exam is comprehensive, and it will be given on **TBD**. Exam dates will be (tentatively):

Midterm 1	Midterm 2	Midterm 3	Final
Sept. 12	Oct. 15	Nov. 12	TBD

**No makeup exams will be given.** There may be exceptions for Georgia Tech-sponsored events, documented illness, or circumstances outside of your control that prevent you from taking the exams. Please get in touch with me **at least 48 hours** in advance, with relevant documentation from the Dean of Students, if such circumstances arise before the exam dates. Note that travel is not an acceptable reason to miss an exam.

## Project:

A course project is included in the grading. The project will provide an opportunity to apply probability and statistics concepts to real-world data or problems. Further information about the project—including guidelines, deadlines, and evaluation criteria—will be provided early in the semester.

## Extra Credit:

Extra credit can be earned through designated activities, such as an extra credit problem in the midterms or participation in certain class events. The cumulative extra credit awarded throughout the semester may not exceed 4% of your total grade. Details will be announced throughout the semester.

## Learning Accommodations

If you need classroom or testing accommodations, please make an appointment with the ODS to discuss the appropriate procedures. More information is available on the [Office of Disability Services website](<https://disabilityservices.gatech.edu>). Please also make an appointment with me to discuss your accommodation, if necessary.

## Honor Code

It is expected that all students are aware of their individual responsibilities under the [Georgia Tech Academic Honor Code](<https://policylibrary.gatech.edu/student-life/academic-honor-code>). Any violations must be reported to the Dean of Students. Cheating includes, but is not limited to, the following:

- Using an unapproved calculator, books, or any form of notes on tests.
- Copying directly from any source, including friends, classmates, tutors, Internet sources (including Wolfram Alpha), or a solutions manual.
- Allowing another person to copy your work.
- Taking a midterm or quiz using someone else's name or having someone else take a test or quiz in your name.
- Asking for a regrade of a paper that has been altered from its original form.

- Using someone else's name to gain participation points for them, or to take quizzes or tests for them, or asking someone else to use your identity for any graded or participation submission.

### **Additional Resources**

- Drop-In Tutoring/MathLab: [<https://tutoring.gatech.edu/drop-in/>](<https://tutoring.gatech.edu/drop-in/>)
- Center for Academic Success: [<https://www.success.gatech.edu/>](<https://www.success.gatech.edu/>)
- Academic Advising: [<https://advising.gatech.edu/>](<https://advising.gatech.edu/>)
- The Office of the Dean of Students: [<https://studentlife.gatech.edu/>](<https://studentlife.gatech.edu/>)
- Counseling Center: [<http://counseling.gatech.edu/>](<http://counseling.gatech.edu/>)
- Students' Temporary Assistance and Resources (STAR): [<https://studentlife.gatech.edu/content/starservices>](<https://studentlife.gatech.edu/content/starservices>)
- Stamps Health Services: [<https://health.gatech.edu/>](<https://health.gatech.edu/>)
- Women's Resource Center: [<http://www.womenscenter.gatech.edu/>](<http://www.womenscenter.gatech.edu/>)
- LGBTQIA+ Resource Center: [<http://lgbtqia.gatech.edu/>](<http://lgbtqia.gatech.edu/>)
- Veteran's Resource Center: [<http://veterans.gatech.edu/>](<http://veterans.gatech.edu/>)
- Georgia Tech Police: [<https://police.gatech.edu/>](<https://police.gatech.edu/>)

### **Tentative Course Outline**

This can be found at the [official MATH 3670 course outline](<https://math.gatech.edu/courses/math/3670>).

\* This syllabus is subject to change with a 24-hour notice over Canvas and in-class announcement. \*