STATISTICS and APPLICATIONS

Section 3670 J

Fall 2026

Skiles BLDG, Rm.249 TR 14.00-15.15

CRN 83742

Instructor: Leonid Bunimovich

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General Information

Description

The course demonstrates how to deal with uncertainties, which are always present in real life. The key notions of Probability Theory and their applications to data analysis (statistics) will be introduced and discussed.

Pre-Requisites

Math 2401 or Math 2411 or Math 2605.

Differential and Integral calculus (including Multivariate Calculus).

Course Learning Outcomes

Upon Successful completion of this course students will be able to

Solve, investigate models of random phenomena

Provide basic analysis of data (random samples)

Course Modality Information

Lectures (classes) will be in person (F2F)

From **GT Guidelines:** Students are expected to attend the class sessions unless they have a compelling reason not to do so.

TEXT BOOK for the course: Sheldon M.Ross “Introduction to Probability and Statistics for Engineers and Scientists, Sixth Edition. Electronic version is available in GATECH Library

Course Policies

Attendance and Participation

Classes are expected to be (very) interactive. It will be demonstrated that "seemingly obvious" answers are of ten wrong if you do not correctly think about (imagine to yourself) the corresponding real life situations.

It is expected that students will attend classes and participate in discussions.

All excused absences must be reported to instructor in advance, and supported by the required documents.

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 Honor Code and the student Code of Conduct

Additional Help

Asking questions is key to success! Free "drop-in" help is available in Math Lab by Math Graduate Teaching Assistants (in Clough 280).

Description of Graded Components

Two Midterms carry 150 points each. Final exam carries 240 points.

HomeWorks carry 10% of the final grade.

Grading Scale

Final grade will be assigned as a letter grade.

Below is the official scale:

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

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 accommodation 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 Students-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

I encourage students to work in groups on home-works. Such collaborations allow students to better and deeper understand material, and especially help them to learn how analysis of probabilistic systems (i.e. systems with uncertainties) can be conducted.