Math 37500: Elements of Probability Theory
Spring 2021

LECTURE INFORMATION:

- TUES., THURS., Blackboard Collaborate, 6PM – 7:40PM, SECTION ST
- FINAL EXAM: TBA

LECTURER INFORMATION:

- Dr. Eli Amzallag, Doctoral Lecturer, Dept. of Mathematics, City College
- E-mail: eamzallag@ccny.cuny.edu
- SPRING 2021 Office Hours: Tuesday from 12:45pm to 1:45pm via Zoom

GRADING POLICY:

- Homework (WeBWorK): 15%
- Three exams (no makeups): 45%
- Final: 40%

COURSE DESCRIPTION (FROM THE MATH DEPARTMENT WEBSITE):

Permutations and combinations, conditional probability, independent events, random variables, probability distributions and densities, expectation, moments, moment generating functions, functions of random variables, Central Limit Theorem, sampling, confidence intervals. Prereq.: A grade of C or better in Math 20300 or MATH 21300. 4 HR./WK.; 4 CR.

SUPPLEMENTARY MATERIALS:

- **Required Texts:** None
- **Recommended Text:**
    - Title: A First Course in Probability and Statistics
    - Author: Peggy Tang Strait
- TI-83, TI-84, or other non-programmable scientific/graphing calculator

HOMEWORK:

Homework will be assigned through WeBWorK. Account log-in information will be provided through Blackboard.

This course may employ an online proctoring system for exams, which may require the use of a video camera.

EXAMS:

Three exams will be given during the course. The focus of each exam will be stated prior to each exam. Problems on exams will mainly be similar to those featured in the examples in class, homework, and old exams/finals, with at most 25% of each exam not modeled on these. Moreover, many (all?) will be multiple choice. I reserve the right to audit results of exams, meaning one-on-one meetings with students to verify that answers given on an exam are their own.

Makeup Policy: Makeups will not be given under any circumstances. If you miss an exam due to emergency, you must document why you missed the exam. In the event that your reason for missing an exam is deemed appropriate, your final will be weighed an additional 15% to replace the missed exam.

FINAL:
The final is cumulative and counts for a significant portion of your grade.
If you miss the final, you must present your case (if you feel you have one) to the math department in order to take a makeup. I am not allowed to give makeups for the final exam without the permission of the department.

ADDITIONAL OUTSIDE HELP:
1. Free math tutoring may be available online through Marshak.
2. YouTube and Khan Academy has good videos on the topics we will cover.
3. Although not required, a couple of good books you might wish to use to supplement the text and your notes are (listed by author):
   Martin Braun, Dennis Zill, Morris Tenenbaum & Harry Pollard

ACADEMIC INTEGRITY:
Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion, as provided herein.
http://web.cuny.edu/academics/info-central/policies/academic-integrity.pdf

STUDENTS WITH DISABILITIES:
Students with physical or emotional disabilities should contact the **Office of Student Disability Services** in NAC 1/218, 212-650-5913. If the office determines that a student's situation warrants special accommodations, I will be certain to make them.

(TENTATIVE) SCHEDULE

(Dates listed are **THURSDAYS**; sections in 9th/10th editons of Boyce and DiPrima.)

1) Week of February 4th – Volume 1
2) Week of February 11th – Volume 2
3) Week of February 18th – Volume 3
4) Week of February 25th – Volume 4
5) Week of March 4th – Exam I Thursday
6) Week of March 11th – Volume 4-5
7) Week of March 18th – Volume 5, 5a, 6
8) Week of March 25th – Volume 6
9) Week of April 1st – No class (spring break);
10) Week of April 8th – Exam II Thursday
11) Week of April 15th – Volume 7
12) Week of April 22nd – Volume 7, 7a, 8
13) Week of April 29th –Volume 8
14) Week of May 6th – Review for Final
15) Week of May 13th – Review for Final Exam Begins; Exam III Thursday
16) Week of May 20th – Final Exam (Date and Time TBA, may be week after)