Syllabus for MAT 330/681: Probability
Fall 2017

Instructor: Prof. Megan Owen
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Office hours: Tuesdays 1:00-1:50pm, 3:40-4:30pm and Thursdays 3:40-4:30pm, Gillet 137E
Course time: Tuesday and Thursday, 2:00-3:40pm, Gillet 305
Course website: http://comet.lehman.cuny.edu/owen/teaching/mat330/2017fa.html

Course Description MAT 330: *4 hours, 4 credit*s. Basic probability theory. Combinatorial problems, distributions, expectation, law of large numbers and central limit theorem, Bernoulli processes and Markov chains. Other topics from probability and statistics. Prereq: MAT 176.

Course Description MAT 681: *4 hours, 4 credit*s. Probability models, combinatorial problems, random variables, expectation and variance, binomial, normal and Poisson variables, law of large numbers, central-limit theorem, Markov chains, and selected additional topics. Prereq: Two semesters of Calculus.

Undergraduate vs. graduate course: The lectures will be the same, but the graduate coursework and exams will be at a higher level. Masters students must be enrolled in MAT 681 to receive graduate credit.

Textbook: A First Course in Probability, 8th or 9th edition, by Sheldon Ross.

Grading: The grading for the course will be based on:

Homework	15%
In-class Quizzes	25%
Midterm	25%
Final exam	35%

You must take and pass the final exam to pass the course.

Homework: All homework should be submitted on paper at the **beginning** of the class on the due date. **No late homework, including homework submitted after the beginning of class, is accepted.** Homework can be submitted early (by the beginning of the class after it is assigned) for bonus marks. Solutions to the homework problems should be written clearly, so that they could be understood by a fellow student.

Quizzes: There will be weekly quizzes in class based on the homework assignments.

Midterm: There will be a midterm exam on Tuesday October 24 in class.

Final exam: The final exam is required and will be on Thursday December 14 from 1:30-3:30pm. You must pass the final exam to pass the course.

Use of Technology & Blackboard: Homework solutions and grades will be posted on Blackboard. The Blackboard system is provided by CUNY to all enrolled students. If you have not accessed Blackboard or are having difficulties, contact Blackboard Support in the Information Technology Division. You can also visit the Help Desk in the Computer Center (first floor, Carman Hall) in person. They can reset passwords and help with simple Blackboard issues.

Honor Code: You are encouraged to work together on solving the homework problems. However, you should write up the solutions on your own. You are responsible for knowing and following Lehman's academic integrity code (available from the Undergraduate Bulletin, Graduate Bulletin, or the Office of Academic Standards and Evaluations). All incidents of cheating will be reported to the Vice President of Student Affairs.

Accommodating Disabilities: Lehman College is committed to providing access to all programs and curricula to all students. Students with disabilities who may need classroom accommodations are encouraged to register with the Office of Student Disability Services. For more info, please contact the Office of Student Disability Services, Shuster Hall, Room 238, phone number, 718-960-8441.

Learning Objectives:
At the end of the course, students should be able to:
1) Solve combinatorial problems.
2) Understand and apply basic probability theory, including random variables, distributions, and expectation.
3) Understand and apply the law of large numbers and central limit theorem.
4) Understand and apply Bernoulli processes.
5) Understand and use Markov chains.