Hours and Location: Tuesdays and Thursdays 4:40 - 6:35 pm, Lind Hall 340

Instructor: Sunita Chepuri
Office: 552 Vincent Hall
Email: chepu003@umn.edu
Course website: http://math.umn.edu/~chepu003/4653Fall2017/index.shtml

Office hours: Mondays and Wednesdays 12:45 - 2:30 pm

Description: This is a one-semester course in probability theory. We will cover the basic concepts of probability theory: random variables, distributions, expectations, variances, conditional probabilities, Bayes’ formula, Markov Chains, and limit theorems. The majority of the course will be about discrete probably. Our emphasis will be on working with concrete problems that arise in applications, but reading and understanding proofs will also be an important part of the course.

Textbook: Rick Durrett, Elementary Probability for Applications

Prerequisites: Math 2263 or 2374 or 2573 required. Math 2283 or 2574 or 3283W recommended.

Grades:
Grades will be based on homeworks, two midterm exams, a final exam, and a project, each of which are given the following point values:

<table>
<thead>
<tr>
<th>Homeworks</th>
<th>20 points each (200 points total)</th>
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<tbody>
<tr>
<td>Midterms</td>
<td>200 points each</td>
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<tr>
<td>Final Exam</td>
<td>300 points</td>
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<tr>
<td>Project</td>
<td>100 points</td>
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<tr>
<td>Total</td>
<td>1000 points</td>
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Exams:
There will be two in-class midterm exams. They are tentatively scheduled for Tuesday, October 10 (Chapters 1 and 2) and Tuesday, November 7 (Chapters 3 and 4). The cumulative final exam will take place at the university-scheduled time of 4:40 - 6:40 pm on Tuesday, December 19th.

If you have a conflict with any exam dates, please contact the instructor immediately.

Homework:
Homework assignments will usually be due on Thursdays and include material covered through the previous Thursday. Homework will be due at the beginning of class and late homework will not be accepted. If you can’t make it to class, you can email it to me (either typed or scanned).
You may work with others on the homework problems, but you must write the solutions yourself, in your own words, to show you understand the solutions. You should list your sources and collaborators at the bottom of your assignment. If you did not use any outside sources or work with anyone besides the instructor, list your sources and collaborators as “none.”
Homework assignments should be neatly handwritten in pencil or black or blue pen, or typed. If an assignment takes more than one piece of paper, the assignment should be stapled in the upper left corner. Fringes (from a spiral notebook) must be removed. Problems should be in order with space between each problem. All solutions should have supporting work/calculations written in a logical order. Homework you turn in should not include class notes, additional problems, or anything else besides the assigned problems.
Project:
You will work with two other students to prepare a 20-minute in-class presentation. The project is very open-ended with only three main requirements:

1. Your project involve some sort of probability theory. You do not need to include deep theory, but probability must be an essential part of your project.
2. Your project must be interesting. You should be excited about what ever you choose so that your presentation is engaging. This is your opportunity to get really creative for a math course.
3. You must give clear explanations. Every student in the course should be able understand how probability relates to your project based on your presentation.

Groups and presentation dates will be assigned on Thursday, October 12, after the first midterm exam. Presentations will take place on November 21 through December 7.

As a warm-up to finding a project topic, each student is expected to find a “newspaper” article with probability in it. The warm-up exercise is due on Tuesday, October 17.

In addition to the presentation and the warm-up, your attendance and participation during other projects will be part of your overall grade for the project. If you are unable to attend class during one or more of the presentation times, you must contact the instructor ahead of time.

Drop Deadlines:
The schedule for drop deadlines can be found at the following site:
https://onestop.umn.edu/dates-and-deadlines/canceladd-deadlines

Extra Help:
Do not hesitate to come to my office during office hours or by appointment to discuss a homework problem or any aspect of the course. If you would like to hire an outside tutor (for a fee), you can find a list of such people through the undergraduate mathematics office 115 Vincent Hall or ugrad@math.umn.edu.

Disability Accommodations:
If you feel that you have a learning disability that would prevent you from doing your best on quizzes or exams within the time frame, you should immediately contact the Office for Students with Disabilities to see if they can authorize accommodations for you. Reasonable accommodations will be provided for students with disabilities on an individualized and flexible basis. The staff at Disability Services will determine said accommodations through consultation with the student. Information is available on their website at https://diversity.umn.edu/disability/, by calling 612-626-1333 (for both voice and TTY), or by sending an email to drc@umn.edu.

University Grading Policies: http://policy.umn.edu/education/gradingtranscripts

Student Conduct and Scholastic Dishonesty:
The University of Minnesota Student Conduct Code governs all activities in the University, including this course. Students who engage in behavior that disrupts the learning environment for others may be subject to disciplinary action under the Code. This includes any behavior that substantially or repeatedly interrupts either the instructor’s ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities. Students responsible for such behavior may be asked to cancel their registration (or have their registration canceled).

Scholastic dishonesty includes plagiarizing, cheating on assignments or exams, using a calculator while taking an exam or quiz, engaging in unauthorized collaboration on academic work, and taking, acquiring, or using exam materials without faculty permission. Scholastic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course. For more information see http://www.oscai.umn.edu.