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M362K (56310)

Probability I, Spring 2011

Course syllabus (last revised: 03/31/2011)

Instructor: Ravi Srinivasan

Email: rav@math.utexas.edu

Phone: 512-471-8143

Office: RLM 11.164

Lectures: TTh 12:30-2, RLM 5.114

Office hours: T 2-3, W 10:30-11:30

Class website: <http://www.ma.utexas.edu/users/rav/M362K/>

Text: ``Probability,`` by Jim Pitman (ISBN 0387979743)

Topics: See <http://www.ma.utexas.edu/academics/courses/syllabi/M362K.php>

Prerequisites and degree relevance:

M408D with a grade of at least C. A student may not receive credit for M316 after completing M362K with a grade of C or better.

Course description:

This is an introductory course in the mathematical theory of probability, and is fundamental to further work in probability and statistics. Axioms for probability are used to derive probability densities and distribution functions. Basic combinatorics (counting) is introduced to handle some problems. Properties associated with a random variable are developed for the usual elementary distributions. Fundamental limit laws like the law of large numbers (LLN) and central limit theorem (CLT) are discussed. To develop a thorough understanding of course material, both problem solving and theorem proving are required.

Notice:

The University of Texas provides appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY. If you plan on using accommodations, you need to notify your Instructors early in the semester.

Important dates:

Wed., Feb. 02, 2011 -- Last day to drop a course for possible refund and without academic penalty

Mon., Mar. 28, 2011 -- Last day to withdraw/drop a class with Dean's approval

Grading:

Course grades will be determined from homework, quizzes, midterms, and the final exam. If

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necessary, final grades will be curved (only upwards) to achieve an appropriate class average. (A word of advice: focus on learning mathematics and do not stress out about the grade--once you understand the mathematics, the grade will follow.) The standard grading system on a 100 point scale will be used with no +/- grades:

- A: 90-100
- B: 80-89
- C: 70-79
- D: 65-69
- F: < 65

1. Homework (HW): 20%

HW assignments will be posted on the class website each week and are due at 12:30pm the following Thursday. Late submissions will *\*not\** be accepted under any circumstances. You are encouraged to discuss HW and work together on problems but your write-up should be your own. Answers must be clearly written with all work shown in order to receive credit (details about how HW is graded will be provided in class). The three lowest HW grades will be dropped.

2. Midterms: 45%

There will be two 75-minute exams given in class on the following dates:

3a. Midterm #1: 20%  
Thursday, February 24

3b. Midterm #2: 25%  
Tuesday, April 12

3. Final exam (comprehensive): 35%

Saturday, May 14, 2-5 pm, location TBA

Exam policy:

Calculators and books are not permitted during quizzes, midterms, and the final exam. A valid photo ID must be available to be checked at all exams. Make-up exams *\*will not\** be given so please remember the appropriate exam dates. In extraordinary circumstances *ONLY*, the final exam score will compensate for a missing midterm exam. This includes illness, observance of a religious holiday, or a university-related absence (e.g., away game) with 2 weeks advance notice. Proper documentation (such as a doctor's note) is required in all cases.

Honor code:

The core values of the University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness and respect toward

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peers and community. Cheating will not be tolerated and will be punished to the fullest possible extent, including possible expulsion from the university.