

Math/Stat 425 (Winter 2013)

Introduction to Probability

Tu/Th 10:00-11:30 in 513 Dennison

Instructor: Ed Ionides

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Office hours: Tu 3-4; Th 11:30-12:30.

Textbook: S. Ross “A First Course in Probability” (8th edition)

Homework assignments: (25%) weekly, due Tuesdays. Assignments turned in late may not be graded. Marks are assigned for showing working as well as getting the correct answer! Discussion of homework problems is encouraged, but solutions must be written up individually. Direct copying, or use of solutions found on the internet or from other sources, is not acceptable.

Tests: All exams will be closed book, and without any electronic devices. A single sided page of notes may be brought in.

Exam 1 (in class): (20%) Tuesday, February 12

Exam 2 (in class): (20%) Tuesday, March 26

Final (513 Dennison): (35%) Wednesday, May 1 4:00 - 6:00

Grading: An approximate guide to grades, based on historical data: A+ 95-100, A 85-95, A- 75-85, B+ 70-75, B 65-70, B- 60-65, C+ 55-60, C 50-55.

Syllabus:

1. Axioms of Probability (Ch. 2.1–2.4, 2.7)
2. Counting and Combinatorics (Ch. 1.1–1.5, 2.5)
3. Conditional Probability and Independence (Ch. 3)
4. Random Variables, Distributions and Expectation (Ch. 4.1–4.7)
5. Discrete Distributions (Ch. 4.9–4.10)
6. Continuous Distributions (Ch. 5)
7. Jointly Distributed Random Variables (Ch. 6)
8. More on Expectation (Ch. 7.1–7.6)
9. Law of Large Numbers and the Central Limit Theorem (Ch. 8.1–8.4)

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Office hours: to be arranged