

Stat 510 / 430H Syllabus

Prof. Mossel
Fall 2014

Prerequisites. This course serves as an introduction to probability that is appropriate for graduate students who have a solid undergraduate mathematical background but who are not yet prepared for a graduate course in probability that would require experience with real analysis or measure theory (such as Statistics 530-531 would require). It is also appropriate for a selected number of undergraduates who have done well in advanced calculus (such as those with an A or A+ in Mathematics 114); the limited number of undergraduate admits are issued on a competitive basis. No prior knowledge of probability or statistics is needed or expected.

Required Textbook. Bershekas and Tsitsiklis, Introduction to Probability, 2nd Ed. The course will cover essentially all of this text. All reading assignments and most homework assignments will call on this text.

Additional Resources. Pitman, Probability. This book covers much of the same topics. There will be no reading or homework assigned from Pitman's book but some of the lectures may utilize the presentation from Pitman as well as from Bershekas and Tsitsiklis.

Intellectual Scope. The core task is to master the language of probability and to master the tools for computing probabilities, means, expectations, variances, moments and distributions, but there will also be honest attention to proofs and the role of probability inequalities.

Grading. There will be weekly homework which will count for 20% of the grade. There will be two mid-terms that will count for 30% of the grade. The final exam will count for 50% of the grade and it will be given at the time specified in the University Schedule of Examinations. Students are expected to follow the principles of academic integrity of the University of Pennsylvania.

Midterms and Final. The dates of the midterms are Oct 1st and Nov 3rd during the usual time of lectures (check the location). The final will take place according to the Penn Exam Schedule (Dec 17 from 9 to 11 am). There will be no additional (earlier/later) midterm or final time slots except for what is stipulated in the policies governing final examinations.

Piazza details??

Homework Submission details??