STAT 430: Proability
Summer 2013
Syllabus

Instructor: Asaf Weinstein, *asafw@wharton.upenn.edu*, Office: 434 JMHH

Class Meets: MTWR 10:40am-12:15pm; JMHH F70

Office Hours: By appointment

Topics to be covered: Probability models: Experiments, Probability Space, Conditional Probability and Bayes' rule, Independence, Combinatorics; Discrete random variables: Probability mass function of a random variable, Joint probability mass function of multiple random variables, conditional probability mass functions; Continuous random variables: Cumulative distribution function, Probability density function of a random variable, Joint density function of multiple random variables, conditional density functions, change-of-variable formula for a univariate random variable; Expectation and Variance: Expectation and conditional expectation, Variance and conditional Variance, Covariance and Correlation; Limit Theorems: Weak law of large numbers, Central Limit Theorem; Markovs inequality; Moment generating function.

Textbook: *Introduction to Probability*, Bertsekas and Tsitsiklis, 2nd Edition (The scope and development of the course will follow this book to a good extent)

Homework Assignments: One homework every week (except maybe for the last).

Quizzes: One quiz every week (except maybe before midterm and final exams).

Reading: I will regularly refer to chapters from the book as the course progresses, for required or (highly) recommended reading.

Exams:

Midterm: Thursday, June 6th (in class)

Final Exam: Thursday, June 27th (in class)

Grade Allocation: Homework: 15%, Quizzes: 25%, Midterm: 25%, Final Exam: 35%.