21-325 Probability Fall 2008 Course Syllabus

Instructor: Weining Kang, weikang@andrew.cmu.edu, 268-8486

- Lecture: MWF 9:30am - 10:20am SH 219
- Office/Hours: WEH 6218/Mondays 11:00am - 12:30pm, Tuesdays 3:00pm-4:30pm
- Course Webpage: http://www.math.cmu.edu/users/weikang/math325


Course Description: This course covers basic concepts in Probability, such as set operations, probability measures, conditional probability, independence, random variables, distributions, expectations, transforms, moments, law of large numbers and the central limit theorem. Applications of probabilities to other disciplines will be illustrated. This course mainly covers Chapters 1-4 and 7 of the book and some additional topics, such as conditional expectations.

Prerequisites: The course will be mathematically rigorous and requires solid understanding of Calculus, up to 3-D Calculus (including single and multiple integration), sequences and series, the concept of limits, and basic mathematical reasoning.

Attendance: Lecture and recitation attendance is required. In the event that you miss a class, it is your responsibility to get the material from the instructor or another student. It is absolutely vital that you read the assigned material in advance so that you may be sufficiently prepared to understand the concepts when they presented in class and be able to
ask focused questions about concepts that are not yet clear to you.

**Homework:** Homework assignments will be announced in lectures and on the course webpage on Wednesdays. They should be completed by the indicated due dates. **No late homework will be accepted. All assignments must include your full name PRINTED.** You will be expected to take all homework assignments seriously and to write them up neatly.

**Exams:** There will be three (3) midterm exams as well as one (1) comprehensive final exam.

Midterm 1: Friday, September 26  
Midterm 2: Friday, October 31  
Midterm 3: Monday, November 24

Final Exam: To be determined

**There will be no make-up midterms in the course (except in truly extraordinary circumstances, in which case an oral exam will be offered).**

**Grading:** The homework will be 15% (the lowest homework score will be dropped); the highest two midterm scores will count for 25% each; the final exam score will be 35%.

**Academic Dishonesty:** Academic dishonesty is considered a serious offense at Carnegie Mellon University. Students caught cheating will face an administrative sanction which may include failure of the course or even expulsion from the university.