

STAT 134 (P2): Concepts of Probability (3 Units)
Spring 2013, UC Berkeley



- Instructor : Prof. Yun S. Song (yss@stat.berkeley.edu)
- Office Hour : TuTh 12:30–1; F 5–6 in 321 Evans Hall
- Lectures : TuTh 11:00–12:30 in 60 Evans
- GSI : Jonathan Terhorst (terhorst@stat.berkeley.edu)
- Section : M 10–11 (S 201) or M 11–12 (S 202)
in 334 Evans
- Office Hour : W 10–12 in 307 or 387 Evans
- **Course Web** : www.stat.berkeley.edu/~yss/courses/sp13-stat134/

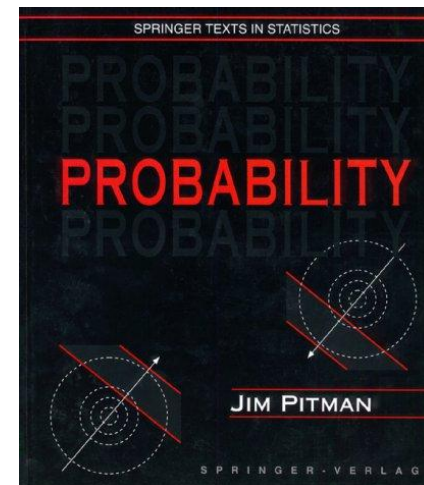
Required Text

Probability by

Jim Pitman,

7th printing, 1999.

- It is essential that all students have regular access to this book.
- Pointers to the relevant sections of the book will be provided as we go along.
- Students are **strongly encouraged to read the textbook.**



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Grading

- **Max of**
 1. (Problem Sets 10% + Midterm 40% + Final Exam 50%)
 2. (Problem Sets 10% + Final Exam 90%)
- Your two lowest problem set scores will be dropped.

Exams

Midterm: Tuesday, March 12, 2013, in class

Final Exam: May 16, 2013, 8:00 AM - 11:00 AM

No makeup exams will be given.

Important: Make sure that the final exams for your other classes do not conflict with the above time.

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Problem Sets

- There will be about 11 problem sets.
- **No late problem sets** will be accepted.
- Please ensure that each sheet is labeled with your name, SID number, and "STAT134 (P2)--Spring 2013".
- **Please don't ask me for a stapler.**
- Please take the time to write clear and concise solutions; we will not grade messy or unreadable submissions.

Student Learning Center

To receive help, students can enter their Student ID at the computer located in the Atrium, and tutorials will be provided on a first-come, first served basis. Go to the [SLC webpage](http://slc.berkeley.edu/math_stat/statistics134.htm) for more details (http://slc.berkeley.edu/math_stat/statistics134.htm).

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Rules

- **No internet surfing during the class:** remember that you may be bothering your neighbors who come to the class to actually learn something.
- **No cheating.** You are encouraged to work on homework problems in study groups of two to four people; however, you must write up the solutions on your own, and you must **never read or copy the solutions** of other students or from Instructor's Solution Manual.

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Academic Dishonesty

- You are **NOT ALLOWED** to own a copy of Instructor's Manual.
- Any form of academic dishonesty will be **reported to the Center for Student Conduct.**

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Berkeley Campus Code of Conduct

2. Campus Policy Regarding Retention

The file of a student found in violation of campus regulations (including the transcripts or recordings of the hearing) will be maintained by The Center for Student Conduct. Student discipline records are confidential and are separate from the student's academic record.

The Center for Student Conduct will retain student discipline records according to the following schedule:

- (a) In cases where the final disposition is dismissal from the University, denial or revocation of a degree, and/or withdrawal of a diploma, the records will be retained indefinitely.
- (b) Records which are subject to maintenance under the Campus Security Act (also known as the Jeanne Clery Act) will be **retained for seven (7) years** from the date of the notice of final disposition.
- (c) Student discipline records in all other cases are retained for four (4) years from the date of the notice of final disposition or until graduation (whichever comes first).

When there have been repeated violations of the Student Conduct Code, all student discipline records pertaining to an individual student will be retained for four (4) years or graduation (seven (7) years for cases which fall under the Clery Act) from the date of the final disposition in the most recent case. Disciplinary records may be retained for longer periods of time or permanently, if so specified in the sanction.

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Advice

- Many of you will think that the **first few weeks** of this course are **too easy**.
 - Most students who **failed** the course last time also thought the same. Don't fall behind.
- Some students will say, **"I understand the concepts, but I cannot do the problems."** This is a well-known phenomenon, referred to as **"ITIK BID."**
 - It stands for **"I Think I Know, But I Don't."** If you cannot do the assigned problems, that probably means you did not understand the concepts taught in class.

E-mail Policy

- I **will not answer** questions regarding the course material over **e-mail**. Please make use of office hours.
- If you have to send us e-mail, please include **"STAT 134"** in **subject** line. Otherwise, your e-mail may get ignored.

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Why should you take this course?

There are **many** good answers.

Probability theory provides the basic foundation for many other fields.

- **Economics** (e.g., finance, market modeling)
- **Computer Science** (e.g., artificial intelligence, algorithms)
- **Engineering** (e.g., control theory, communication, signal processing)
- **Physics** (e.g., quantum mechanics, statistical physics)
- **Biology** (e.g., evolution, development, regulation of gene expression)
- **Chemistry** (e.g., molecular dynamics)
- **Mathematics** (e.g., non-constructive existence proof)

This course may be one of the most useful courses you take at Berkeley.

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Course Outline

- Chapter 1: Introduction
- Chapter 2: Repeated Trials and Sampling
- Chapter 3: Random Variables

Midterm Exam

- Chapter 4: Continuous Distributions
- Chapter 5: Continuous Joint Distributions
- Chapter 6: Dependence

+ **extra special topics** (e.g., generating functions)

Useful resource: The textbook has

- Probability distribution summaries on pages 475-488
- Solutions to odd-numbered exercises.

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Waitlist

- The instructor does **NOT** manage the waitlist.
- It is predicted that between 10 and 20 of the currently enrolled students will **drop out**, so patience may pay off.
- There is some chance of increasing the enrollment limit slightly, after the number of students stabilizes.

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