Statistics 25300/31700, Winter 2013
Introduction to Probability Models
— An introduction to applied stochastic processes

Time: MWF 11:30-12:20 am, Eck133

Prerequisites: Equivalent of STAT24400 or STAT25100 or Consent of Instructor

People

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Office</th>
<th>Telephone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Instructor</td>
<td>Yibi Huang</td>
<td>Eck104A</td>
<td>834-1024</td>
<td><a href="mailto:yibih@uchicago.edu">yibih@uchicago.edu</a></td>
</tr>
<tr>
<td>CA</td>
<td>Rishideep Roy</td>
<td>Ryerson N375</td>
<td>834-3393</td>
<td><a href="mailto:rishidep@galton.uchicago.edu">rishidep@galton.uchicago.edu</a></td>
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Office Hours

<table>
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<tr>
<th>Day</th>
<th>Time</th>
<th>Room</th>
<th>By</th>
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<tbody>
<tr>
<td>Tuesday</td>
<td>4:30-5:30pm</td>
<td>Eck117</td>
<td>Mengyu Xu</td>
<td>Office Hour</td>
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<tr>
<td>Wednesday</td>
<td>4-5pm</td>
<td>Eck104A</td>
<td>Yibi Huang</td>
<td>Office Hour</td>
</tr>
<tr>
<td>Thursday</td>
<td>4:30-5:30pm</td>
<td>Eck117</td>
<td>Ang Li</td>
<td>Office Hour</td>
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More appointments available upon request

Textbook


Other Commonly Used Textbooks

(a partial list; recommended but not required)

- Introduction to Stochastic Processes, (Chapman & Hall, 2006, 2nd ed.) by G. Lawler

Course Outline

This course introduces stochastic processes as models for a variety of phenomena in sciences. Following a brief review of basic concepts in probability the course will introduce stochastic processes that are popular in scientific applications, such as discrete time Markov chains, the Poisson process, continuous time Markov processes, renewal processes, queuing models, and Brownian motion.

Grade Components

- Daily Homework (40%)
- Midterm (30%) — Friday, Feb. 8, 4-6pm in Eck133
- Final (30%) — Monday, Mar. 18, 10:30-1:30pm in Eck133
Homework Policy

- Due 7 days from the day it is assigned, in class
- Resubmission is welcomed, can get 50% of the points back
- Late homework **within one week** will be taken 50% off
- Late homework **beyond one week** will NOT be accepted
- The course assistant will be available during his office hours (or by appointment) to discuss questions you may have about the homework.
- **Homework should be handed in stapled with**
  - your name,
  - date, and
  - Stat253 or Stat317 clearly marked
- **Collaboration:** Discussion is allowed but you should write your homework independently