STA261H - Probability and Statistics II  
Summer 2008

Lectures: Mondays and Wednesdays 7-10pm at RW110  
Instructor: Gun Ho Jang  
e-mail: smsrta6@gmail.com Put ‘STA261’ in the subject of your mail  
Web page: http://www.utstat.toronto.edu/ghjang/teaching/sta261.php  
Office: Sidney Smith Hall room 6008 (shared room).  
Office Hours: Mondays 2-4pm or by appointments.

Course Description
This is a sequel to STA257H with emphasis on statistical theory and methods. Some methods to make statistical decisions will be introduced, and some applications (simple linear regression and anova) will be dealt in class. Topics to be covered: point estimation, testing, confidence intervals, statistics, unbiasedness, sufficiency, simple linear model and the analysis of variance. This corresponds to chapters 8, 9, 10, 11 and 13 of the textbook with additional material not being found in the textbook.

Textbook  

References  

Evaluation
The grading scheme is as follows:

<table>
<thead>
<tr>
<th></th>
<th>proportion</th>
<th>date, time and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-term test</td>
<td>40%</td>
<td>Monday, July 21, 6-8pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>SF2202</strong>; Stanford Fleming Building</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Problems will be solved in the lecture room (RW110) from 8:30pm</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
<td>Quiz I: Wednesday July 9, 9:30-10:00pm,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quiz II: Wednesday July 30, 9:30-10:00pm,</td>
</tr>
<tr>
<td>Final exam</td>
<td>50%</td>
<td>TBA.</td>
</tr>
</tbody>
</table>
Tutorials
Tutorials are Mondays and Wednesdays 6-7pm: beginning on Monday July 7. Many important problems are dealt during tutorial.

Assignments
There will be no assignments. Several practice problems, however, will be distributed through the course web site.

Notes

- This course is the second part of the second year in mathematical statistics and also requires background of STA257 or equivalent. Intermediate level of calculus is also required.

- Important announcements or other course information will be posted on the course web site. Check it regularly.

- The term test and final exam will be closed book with no aids allowed except a nonprogrammable calculator. A formula sheet will be also provided in each test and exam.
STA347-Course Outline-Summer, 2008

Instructor: Philip McDunnough, SS6002.


Marking: One 2-hour test (25%), one assignment to be treated as a take home test (15%) and one 3-hour final exam (60%). Any missed "test" increases the value of the final exam by the same amount. The final exam may be worth 100% if it is to your benefit.

Lectures: Tuesdays, Thursdays 6-->9 in SS1087.
Office Hours: After class, by e-mail, by appointment.
Extra help: The TA will have some office hours before the final exam and the in-class test.
Assignments: None but suggested problems will be given and solutions provided. It is important to do these as they indicate the level and type of questions to be found on each of the 2 tests.
Coverage
(A)- A summary of the theory of probability and expectations (including conditional expectation) required for the study of stochastic processes.
(B)- Main limit results in probability.
(C)-The Poisson Process and variations. Basic renewal processes.
(D)-Markov Chains including branching processes, simple random walks, limit theorems.
The material is taken from Chapters 1-->8, 9 (parts), 14 (very little), 16 (parts) of the text.

Main references:
- Stochastic Processes, Sheldon Ross, (Wiley) - good reference for stochastic processes (slightly more advanced than 347)

Other reference:
- Probability and Random Processes, Grimmett & Stirzaker, (Oxford) - a bit advanced, useful for STA447

pmcd - July 2, 2008