COURSE INFORMATION STATEMENT

COURSE OUTLINE


<table>
<thead>
<tr>
<th>Chapter</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Markov Chains</td>
</tr>
<tr>
<td>6</td>
<td>Brownian Motion</td>
</tr>
<tr>
<td>1</td>
<td>Generating Functions, Branching Processes</td>
</tr>
</tbody>
</table>

Additional material (taken from other sources and decided upon at a later time) may include 2nd order stationary processes, martingales, and applications to mathematical finance.

GRADING SYSTEM

Grades will be based on the accomplishment of homework assignments.** Each assignment will consist of a core, standard level part and an additional, more demanding part. Accomplishment of 80% of the core part will guarantee a “B” grade. To obtain higher grades, a student will have to accomplish something from the extra part. The other grades are determined by the following table.

<table>
<thead>
<tr>
<th>Core Percentage Accomplished</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>BC</td>
</tr>
<tr>
<td>64</td>
<td>C</td>
</tr>
<tr>
<td>56</td>
<td>CD</td>
</tr>
<tr>
<td>48</td>
<td>D</td>
</tr>
</tbody>
</table>

* Subject to change upon announcements.

** All papers must be “Show All Work”, written in full English sentences, and 100% legible. Papers not up to such requirements may be returned and/or some credit may be withheld.
## PROBLEMS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Core</th>
<th>Extra</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1, 41, 7(d), 11(b), 12, 13(a, c)</td>
<td>2--5, 40, 42, 46, 7(a, b, c), 10, 43, 44, 46, 47, 50, 51</td>
</tr>
<tr>
<td>2</td>
<td>13(b), 15, 17, 18, 14, 16, 19(a,b), 30, 52, 39 (misprint: .301 must replace .391)</td>
<td>35, 70, 21, 23, 24, 27, 37, 48, 49, 65, 19(c, d)</td>
</tr>
<tr>
<td>6</td>
<td>1, 2, 5, 7, 8, 11, 12, 17, 18(c), 25</td>
<td>3 (misprint, replace $T_{ab}$ by $B(T_{ab})$), 4, 9, 10, 13, 14, 16 (on $[0,\pi]$), 22--24, 26, 28, 32</td>
</tr>
<tr>
<td>1</td>
<td>1, 6, 8, 10, 21, 23, 25</td>
<td>2, 3, 5, 7, 9, 12, 14, 17, 28</td>
</tr>
</tbody>
</table>