This is an introductory course on the mathematical theory of probability, fundamental to further work in probability and statistics. Topics to be covered include basic probability properties, conditional probability and independence, various discrete and continuous random variables, expectation and variance, central limit theorem, and joint probability distributions.

Prerequisite. The prerequisite is M408D with a grade of at least C.

Class Time and Location. The class will meet MTWTHF 8:30 AM - 10:00 AM @ RLM 7.104.

Instructor. Kui Ren
Office: RLM 10.170
Phone: 512-471-3152
Email: ren@math.utexas.edu
Office Hours: MTWTHF 10:00AM-11:00AM.

Teaching Assistant. Yingwu Zhao
Office: RLM 10.108
Phone: 512-475-9142
Email: yzhao@math.utexas.edu
Office Hours: TBA.

Homework and Exams. There will be twelve homework sets. The two lowest score from your homework will be dropped when calculating your final score. There will be two in-class exams and a final exam. Note that, in principle, no late homework will be accepted and no makeup exam will be arranged.

Grading Policy. The final grade will be weighted roughly as follows:

Homework 30%, Midterm Exam 30%, Final Exam 40%.
The numerical grades for all three exams will be linearly scaled so that the highest point in the class is 100. The same scaling factor applies to all the students. The final grade will also be scaled so that the highest final point is 100. The letter grades are distributed as follows:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% - 100%</td>
<td>Grade A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>Grade B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>Grade C</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>Grade D</td>
</tr>
<tr>
<td>0% - 59%</td>
<td>Grade F</td>
</tr>
</tbody>
</table>

**Course Webpage.** All the homeworks will be posted on the university teaching tool, the blackboard system:

https://courses.utexas.edu/webapps/portal/frameset.jsp

**Textbooks.**

A First Course in Probability (8th edition)
Sheldon Ross
Prentice Hall, 2010

**Computing Resources.** The mathematics undergraduate computer lab in RLM 7.122 is open to all students enrolled in a math course. The lab is open whenever the RLM building is open. You will need an account to use the lab. Bring your EID with you when you visit the lab to sign up for an account.

**Miscellaneous.**

- The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY.

- It is the policy of The University of Texas at Austin that you must notify the instructor at least fourteen days prior to the classes scheduled on dates you will be absent to observe a religious holy day.
M362K: Probability I, Summer 2010

Unique # 92145

Lecture Schedule

• 07/12 (MO): Sections 1.1-1.3
• 07/13 (TU): Sections 1.3-1.4
• 07/14 (WE): Sections 2.1-2.2
• 07/15 (TH): Sections 2.3-2.4
• 07/16 (FR): Sections 2.5 & 2.7
• 07/19 (MO): Sections 3.1 & 3.2
• 07/20 (TU): Section 3.3
• 07/21 (WE): Section 3.4
• 07/22 (TH): Sections 4.1-4.2
• 07/23 (FR): Sections 4.3-4.4
• 07/26 (MO): Sections 4.5-4.6
• 07/27 (TU): Sections 4.7-4.8
• 07/28 (WE): Midterm Exam
• 07/29 (TH): Sections 5.1-5.2
• 07/30 (FR): Sections 5.3-5.4
• 08/02 (MO): Sections 5.4-5.5
• 08/03 (TU): Section 5.6
• 08/04 (WE): Section 5.7
• 08/05 (TH): Sections 6.1-6.2
• 08/06 (FR): Sections 6.2-6.3
• 08/09 (MO): Sections 6.4-6.5

HW#1 Handout
HW#2 Handout
HW#3 Handout
HW#4 Handout
HW#5 Handout
HW#6 Handout
HW#7 Handout
HW#8 Handout
HW#9 Handout
HW#10 Handout
• 08/10 (TU): Sections 7.1-7.2

• 08/11 (WE): Sections 7.4 & 8.1

• 08/12 (TH): Sections 8.2-8.3

• 08/13 (FR): Sections 8.3-8.4

• 08/14 (SA): **Final Exam**, 9:00AM - 11:00AM, Location: TBA

• 08/19 (TH): Final Grade Available Online

Note that there are probably minor changes on the schedule. Those changes will be announced in class.