STT 441: Probability and Statistics I: Probability

Time and Place: M-W-F, 12:40–1:30 p.m.; A318 Wells Hall (619 Red Cedar Road)

Instructor: Dr. Yimin XIAO

Office: C-437 Wells Hall

Phone Number and E-Mail: 432-5411 xiao@stt.msu.edu

Office hours: M W F 4:00–5:00 p.m., or by appointment.


Coverage: We intend to cover selected parts of Chapters 1–8.

Prerequisite: MTH 234 or MTH 254H or LBS 220.

STT 441 is an important prerequisite for several statistics classes and a required course for Statistics and Actuarial Science majors. The purpose of this course is to teach students basic probability principles and techniques. The learning objective is for students to master the following components: combinatorics, basic probability concepts, conditional probabilities, discrete and continuous random variables, classical probability distributions, joint probability distributions, expected values, laws of large numbers and the central limit theorem (normal approximation).

This course is demanding and requires a great deal of work. Students are responsible for all material covered in class. Students are expected to attend each class period and to bring their textbook.

Homework: Homework will be assigned regularly during Monday’s lecture. Students are expected to complete their homework on time. It is absolutely essential to keep up with the homework assignments.

Quizzes: There will be six 15-minute-quizzes given during this semester. The quizzes are designed to practice the material taught in the lecture and help you to develop problem-solving skills. There will be no make up quizzes. The lowest quiz score will be dropped. The quizzes will be given in class on the following Fridays:

January 24, February 7, February 21, March 14, April 4, April 18
Exams:

- The mid-term will be given in class on Friday, March 21, 2014.
- The final is a 2-hour exam and will be comprehensive. It will be given during 3:00-5:00 p.m. on Tuesday April 29, 2014.

The final grade will be determined from your mid-term exam, final exam, quizzes and homework. The relative weighting is: Midterm exam, 30 %; Final Exam, 40 %; Quizzes, 15 %; Homework, 15%.

The grades will be given roughly according to the following scheme:

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>92–100</th>
<th>86–91</th>
<th>80–85</th>
<th>73–79</th>
<th>67–72</th>
<th>60–66</th>
<th>51–59</th>
<th>50 ↓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>4.0</td>
<td>3.5</td>
<td>3.0</td>
<td>2.5</td>
<td>2.0</td>
<td>1.5</td>
<td>1</td>
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Important Dates:

- January 6       First day of classes
- January 10      Close of online add period at 8:00 p.m.
- January 20      Martin Luther King Day (No classes)
- January 31      End of 100% tuition refund
- February 26     Middle of the semester, last day to drop with no grade
- March 3–7       Spring Break
- April 25        Last day of classes
- April 28- May 2  Final Exams

ADA Statement  The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the quarter to discuss any such accommodations for the course.