Course: Mathematical Statistics
Class Time: MWF 10:30 AM - 11:35 AM in Science 3650
Prerequisite: Math. 1101 or Equivalent
Instructor: Jong-Min Kim, Statistics Discipline
Office: 2380 Science (Tel: 589-6341)
Office Hours: 3:00 PM-4:30 PM M., and W. or by appointment.
Email: jongmink@morris.umn.edu
Webpage: http://cda.morris.umn.edu/~jongmink/stat2611/

Required Course Material:


Course Description:

We will cover Chapters 2-4 and 7-10 in Wackerly, Mendenhall, and Scheaffer (WMS). In particular, we will explore the axiomatic approach to probability, various counting techniques, Bayes Theorem and other probability laws, random variables, probability distributions for both discrete and continuous random variables, probability distributions for both discrete and continuous random variables, moment generating functions, joint and conditional distributions for n random variables, measures of association (covariance and correlation), distributions of functions of random variables, order statistics, sampling distributions (e.g., t, Chi-Square, F, etc.), the Central Limit Theorem, Point estimators, confidence intervals, sufficiency, method of moments and maximum likelihood estimation, and hypothesis tests. We will focus on both theory and application in this course. You will be expected to derive theoretical results using calculus, and apply these results to real-life situations.

Homework:

There will be homework problems given in most class periods. No late homeworks will be accepted without a valid excuse.

Examinations:

Three midterm examinations and a final exam will be given. No make-up exams will be given. You may also use a calculator. The tentative time table for the examinations is given below:

Midterm 1 Science 3610 10:30 AM - 11:35 AM Fri., February 17
Midterm 2 Science 3610 10:30 AM - 11:35 AM Wed., March 29
Midterm 3 Science 3610 10:30 AM - 11:35 AM Wed., April 26
Final Exam Science 3610 11:00 AM - 1:00 PM Fri., May 12
Grading

Grades for the course will be determined using the following weights for each component of the course:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Midterm 1</td>
<td>100 pts.</td>
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<tr>
<td>Midterm 2</td>
<td>100 pts.</td>
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<tr>
<td>Midterm 3</td>
<td>100 pts.</td>
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<tr>
<td>Final Exam</td>
<td>200 pts.</td>
</tr>
<tr>
<td>Homework</td>
<td>100 pts.</td>
</tr>
<tr>
<td>TOTAL</td>
<td>600 pts.</td>
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Trends on the scores, attendance to the lectures, class participation etc. will be considered on the determination of the final grades. Insofar as assigning letter gradings, I know that the final cutoffs will not be higher than the standard 90-80-70-60 scale.

Rules for dropping and adding classes are the same as those for the university. Students are expected to attend all classes. University rules associated with academic dishonesty will be followed.

Disabilities:

Reasonable accommodations will be provided for students with documented physical, sensory, learning, and psychiatric disabilities. Contact Disability Services to work out the details of accommodations. Please feel free to discuss other special needs with me.

Some comments about STAT 2611

- I expect that you attend each class session, as we will cover a lot of material. If you need to be absent, let me know well in advance.

- Feel free to ask questions during class; your questions are an important part of this course! If you fall behind, it is easy to become confused and bored with material.

- Working together on homework problems is permitted and encouraged, but each student should write up his/her solutions independently of others (this will help greatly). Naturally, cheating on exams is an extremely serious offense and will be dealt with accordingly.

- I would like to talk to anybody with a disability that may require special attention with examinations or other aspects of the course.

- I hope that you have an enjoyable and successful semester. Good Luck!