Course description and prerequisites

A non-calculus exposition of the concepts, methods and usage of parametric and nonparametric statistical data analysis. Intended for graduate students from various disciplines (other than Statistics). Prerequisite: MATH 102 or equivalent.

Course objectives

STAT 651 is designed to introduce students to statistical methods and software, particularly in ways that are useful for their research. By the end of the course students should have a conceptual understanding of statistical analysis, and should be able to choose appropriate statistical procedures for their data. They should be able to carry out statistical tests, using software as appropriate, and draw valid conclusions.

Instructor

Uschi Müller-Harknett
Office: BLOC 458E;  Tel.: (979) 862-2049;  Mail: uschi@stat.tamu.edu
Office hours: TR 2:15-3:15 (except 11/21), and by appointment

Textbook and other resources

Your main resources for this course are (1) our regular classes, and (2) the textbook: An Introduction to Statistical Methods and Data Analysis, 7th Ed., by R. Lyman Ott and Michael Longnecker. One place to purchase or rent the textbook is the publisher’s website: www.cengagebrain.com/course/2008550. The statistical software used in this course is JMP. You will receive more information on this at the beginning of the semester.

Homework and additional material will be posted at ecampus.tamu.edu.

Grader / help sessions

Grader: Zhao Tang Luo  Mail: zt.luo@tamu.edu
Office: BLOC 419  Office hours: W2-4

Additional help sessions in BLOC 162: T5-7; R2-4, 5-7

Course topics and exam dates

Exams will be held in class on Tuesday, October 24 (midterm), and from 8:00 to 10:00 on Wednesday, December 13 (final).

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<th>Topic</th>
<th>Required reading</th>
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<tr>
<td>I Introduction and data description</td>
<td>Ch. 1,2,3</td>
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<tr>
<td>1. What is statistics?</td>
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<td>2. Graphical techniques for looking at data</td>
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<td>3. Numerical measures for data</td>
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<td>II Probability distributions</td>
<td>Ch. 4</td>
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<tr>
<td>1. Basic concepts for discrete and continuous random variables</td>
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<td>2. Sampling distributions</td>
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<td>3. Central limit theorem</td>
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Course grade

Your grade will be based on your performance over the semester: homework will make up 20% of the course grade, the midterm exam will count for 30% and the final exam for the remaining 50%. Your lowest homework score will be dropped. If your final exam score is better than your midterm score, the final exam will count for 80%.

If you have to miss the midterm exam because of illness or other circumstances beyond your control, please notify me or the Department of Statistics main office before the exam. If the absence is approved, we will either arrange for you to take the exam later (up to seven days after the originally scheduled date) or, if that is not possible, increase the weighting of the final exam. If you cannot complete a homework assignment on time because of illness or other circumstances beyond your control, please notify me.

The previous two paragraphs set out the only methods that will be used to determine course grades. If you feel that personal circumstances are affecting your academic performance, or are concerned that your work is not going to earn you the grade that you require for some purpose (e.g. getting/keeping an assistantship or a scholarship), please explore your options and take appropriate action in good time.

Other course information

Regular class attendance is assumed. I do not monitor attendance or give unannounced quizzes. However, syllabus details, including homework assignments and dates, may be changed by in-class announcements. Anything that is missed because a student is not in class is the student's responsibility.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services: visit disability.tamu.edu for more information.

Academic integrity and fairness

I aim to treat you fairly. I expect you to treat me and your fellow students fairly. I take academic honesty seriously, and expect you to do so as well.

You should be aware of the Honor Council rules and procedures, the Honor Code, and the definitions of “academic misconduct” at http://aggiehonor.tamu.edu/Rules-and-Procedures/Rules/Honor-System-Rules