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STAT 451.01: Statistical Methods I

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STAT 451 Statistical Methods Fall, 2013

<u>Instructor:</u>	Jon Graham (jgraham@mso.umt.edu) Math 204 243-2561	
<u>Time/Room:</u>	Mon, Wed, Fri, 9:10-10:00am, Math 108 (Section 1) Mon, Wed, Fri, 10:10-11:00am, Math 108 (Section 2)	
<u>Textbook:</u>	An Intro. to Stat. Methods and Data Analysis, 6th ed. / Ott & Longnecker	
<u>Webpage:</u>	<table border="1"><tr><td>http://www.math.umt.edu/graham/stat451/</td></tr></table>	http://www.math.umt.edu/graham/stat451/
http://www.math.umt.edu/graham/stat451/		
<u>Office Hours:</u>	To be announced, By appointment	
<u>Grading:</u>	Homework: 30% Exams 1,2: 40% Final: 30%	
<u>Prerequisites:</u>	One year of college mathematics including M115. A previous course in probability is useful (not required), and no background in statistics is assumed.	

Homework will be assigned at the beginning of class every Friday, to be handed in at the beginning of class the following Friday. NO LATE HOMEWORK WILL BE ACCEPTED FOR ANY REASON, and the lowest homework grade will be dropped. Homework is not only a fairly substantial portion of your grade, but is vital to your success in this class. Working with other students on homework is allowed and even encouraged, as long as you hand in your own work, and do not simply copy someone else's work.

Exams 1 & 2 will be cumulative and closed book. More about the exams, including the exact dates of the exams will be given later. If you cannot make it to an exam, you must let me know **BEFORE** the exam is given. No make-up exams will be given without a documentable reason for missing the exam.

The **Final exam** is scheduled for 8:00-10:00am on Thursday, December 12 for Section 1 and 8:00am-10:00am on Friday, December 13 for Section 2. The final will be cumulative and closed book.

Course Material and Objectives: This course is an introduction to statistical methods for analyzing data. The course is intended primarily for students in disciplines outside of mathematics who are seeking statistical tools for data analysis. After some experimental design issues and an introduction to graphical and numerical methods of exploratory analysis, the course will focus on probability distributions, relationships between variables, statistical inference through estimation, hypothesis testing, and confidence intervals, categorical data, and linear regression. Throughout the course, both in class, and on homeworks, the software package **R** will be used to illustrate statistical techniques and elucidate statistical concepts.

Additional Course Information: The last day to add this course through Cyberbear is Wednesday, September 4. The last day to drop this course or change the grading option through Cyberbear is Monday, September 16. Between Tuesday, September 17 and Monday, October 28, you can drop the course with your advisor's and instructor's signature using a Drop form only. I will not recommend approval of late drops except in EXTREME circumstances (see the UM online catalog). You can add the course or change the grading option with an Add/Change form up until Friday, December 6.

Academic Misconduct: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review at http://life.umt.edu/vpsa/student_conduct.php.

Disability Services: The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommasson 154. I will work with you and DSS to provide an appropriate accommodation.

Questions are strongly encouraged, both during class and at office hours. If you are lost or confused, please let me know.