STAT 341: INTRODUCTION TO PROBABILITY AND STATISTICS

Course Syllabus: Fall 2012

Instructor: Marylesa Howard
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Class Time/Location: 10:10 - 11:00 a.m. MWF in Math 311
Office Hours: Wednesday 3:10-4:30p.m.; Friday 8:00-9:30a.m.; or by appointment.
Class Web Page: http://www.math.umt.edu/howard/ (check this regularly)

Prerequisite: Math 162 or Math 172 (Math 150 or Math 153).

LEARNING GOALS: To learn the basics of exploratory data analysis, including graphical and numerical displays of a single variable and the relationship between two variables (time permitting). To understand basic probability, counting and combinatorial methods, and Bayes’ Theorem. To understand and use the Law of Large Numbers and the Central Limit Theorem. To learn about models for discrete and continuous random phenomena and to apply these models to real problems. To learn to use R for data analysis and simulation.

SOFTWARE: R is free software, available for download at http://www.r-project.org/. It is also available in the Math 206 and LA 240 computer labs. R is a high-level statistical programming language which is especially good for data analysis and simulations.

EMAIL: I will use the email address you provided on the Information Sheet handed out on the first day of class if I need to send an email to the class. If you provided no email address, your default University address will be used.

NOTES ABOUT THE COURSE: I strongly advise you to take notes in this class, as most notes will be provided on the board. We will spend some time learning to analyze data and work with the R software. We will cover most (if not all) of the sections in Chapters 1 through 3, and 5 through 6. R will be incorporated for better understanding, for use in simulations, and for programming language experience.

Answers on homework, quizzes and exams are not adequate without clearly indicating your reasoning. In a 300-level course, you are expected to write a neat and coherent, properly punctuated solution.

In this class, you are encouraged to work together on homework and in-class activities. However, unless otherwise stated, the work you turn in must be your own. This means that after discussing a problem, you should each write it up in your own words.

HOMEWORK: Homework is due at the beginning of class on Fridays, unless otherwise specified. You will be allowed one late assignment (due at the beginning of the next class after the missed due date). Your lowest homework score will be dropped.

If a homework problem involves using R, then you are expected to include a copy of the script you wrote with the output after compiling in R, along with a summary you write on the output. You are allowed–and even encouraged–to work with others on R as long as the solutions you present are your own, but know how to write the R code on your own.

QUIZZES: Quizzes will be administered on Wednesdays (except for exam weeks) and will cover proximal lecture and homework material. Quizzes will be at the beginning of lecture, so do not
be late. There are no make-ups given on quizzes for any reason, and so thusly, your lowest two quiz scores will be dropped.

EXAMS: There will be two midterm exams given in class, scheduled tentatively for Friday October 5 and Monday November 19. Makeups are given at instructor’s discretion and only in cases of emergency or other important circumstances. If you cannot make it to an exam, you must let me know BEFORE the exam is given. The make-up exam must occur within 1 week of the scheduled exam date. Failure to do so will result in a score of 0 for the exam. The final exam is Tuesday, December 11, 8:00 a.m. - 10:00 a.m. Missing the final also results in a score of 0 for the exam.

GRADING: The grades will be assigned as follows. A: 90-100; A-: 87-89; B+: 84-86; B: 80-83; B-: 77-79; C+: 74-76; C: 70-73; C-: 67-79; D+: 64-66; D: 60-63; D-: 55-59; F: 0-54.

The distribution of the portions of the grade is as follows.  
Homework: 22%  
Quizzes: 8%  
Exams: 40% (2 @ 20% each)  
Final: 30%

CELL PHONES: Your cell phone should be on silent and put away. Bring in a legitimate calculator. If your phone rings during a test, you are done for the day; you will turn in whatever you have for better or for worse.

IMPORTANT DATES:  
Monday, September 3: Labor Day, No School  
Friday, September 5: Last day to add via CyberBear  
Monday, September 17: Last day to drop via Cyberbear  
Monday, October 29: Last day to add/drop, change grading option via paper form  
Tuesday, November 6: Election Day, No School  
Monday, November 11: Veterans Day, No School  
Wednesday-Friday November 21-23: Thanksgiving Break, No School  
Friday, December 7: Last day to add/drop via petition  
Monday-Friday, December 10-14: Finals Week

INCOMPLETES are given at the discretion of the instructor and only considered in cases where the student has been in attendance and doing passing work up to three weeks before the end of the semester AND for reasons beyond the student’s control that are acceptable to the instructor, the student has been unable to complete the requirements of the course on time. Negligence and indifference are NOT acceptable reasons.

DISABILITIES: If you are a student with a disability and wish to discuss reasonable modifications for this course, contact me privately to discuss the specific modifications you wish to request. Please be advised I may request that you provide a letter from Disability Services for Students verifying your right to reasonable modifications. If you have not yet contacted Disability Services, located in Lommasson Center 154, please do so in order to verify your disability and to coordinate your reasonable modifications. For more information, visit the Disability Services website at http://www.umt.edu/disability.

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, available for review online at http://life.umt.edu/vpsa/documents/StudentConductCode1.pdf.