Stat 515-03 : Statistics I
Fall, 2015

Instructor: Zheng Wei  
Office Hours: Wednesday and Friday
LGRT 1344  
11:00 a.m. –12:00 a.m., or by appointment
email: wei@math.umass.edu

Lecture: Monday, Wednesday, and Friday 10:10AM - 11:00AM
Lederle Graduate Research Tower RM 121

Web Page: Such materials as lecture notes and homework assignments will be posted
on http://people.math.umass.edu/~wei/teaching.html

Required Text: Mathematical Statistics with Applications(7th Edition),
D. D. Wackerly, W. Mendenhall and R. L. Schaeffer

Prerequisites: Two semesters of single variable calculus Math 131-132 (univariate calculus covering
both differentiation and integration for single variables), Or the equivalent, with a
grade of C or better in Math 132. Math 233 is recommended for this course.
The necessary concepts for multiple integration or partial derivatives will be introduced
in the course as needed.

Course Description:
This course provides a calculus based introduction to probability
(an emphasis on probabilistic concepts used in statistical modeling)
and the beginning of statistical inference (continued in Stat516).
Coverage includes basic axioms of probability, sample spaces, counting rules,
conditional probability, independence, random variables (and various associated
discrete and continuous distributions), expectation, variance, covariance and
correlation, the central limit theorem, and sampling distributions.
Introduction to basic concepts of estimation (bias, standard error, etc.) and
certainty intervals. We will cover much of chapters 2-7 in the text
(with some omissions) and probably some portions of chapter 8.

Required Work: The required work for the course will consist of homework
assignments, 5 in-class attendance quizzes, one in-class midterms and a final exam.

Grading: The final course grades will be based upon:

Homework plus quizzes  30 % (HW+quizzes) +5% (attendance)
Midterm  32 %  Monday, October 19th, Time and Rm: TBA
Final (comprehensive)  33 %

12/16/2015, Wednesday 1:00PM - 3:00PM at Goessmann Laboratory room 20
[Note] If one does not take all five attendance quizzes, one might not
get 5% performance scores.

The lower cut-off points for the grades are:

F  D  D+  C-  C  C+  B-  B  B+  A-  A
0-55  55-59  59-63  63-67  67-71  71-75  75-79  79-83  83-87  88-90  90-100
Homework: Homework is due at the beginning of class on the due date. No late hw will be accepted. Unreadable work, scratching out, etc. will not be graded. The homework can be discussed with your classmates but you have to turn in your own hw. Your work will be evaluated on the method of solution and the ability to apply concepts, rather than the numeric answer to the problem. As the numeric answers to some hw questions may be found at the end of the book, you will not receive credit unless you show your work.

Exam: For both the midterm and final exams, you are allowed to bring one, 8.5x11(letter size) double-sided formula sheet. You are responsible for taking the final exam at the time it is scheduled by the University. Do not make travel plans that may conflict with the final date before knowing when the exam is scheduled for.

Course Policies:
1. If you have a University-approved conflict with any of the exams, you must let me know at least one week before the exam. A conflict exam will be scheduled to take place just before or just after the regularly scheduled exam.

2. Make-up exams will only be given for legitimate, documented reasons (e.g., serious illness, injury, or death in the family) and with approval before the exam occurs.

3. Attendance to each class meeting is required and beneficial. Students are responsible for all announcements and supplements given within each lecture and/or via course email.

4. Any objections to the homework grading, the midterm or final grading should be directed to the instructor. All requests will be considered by the instructor and the student will be notified if a grade change occurs.

Add & Drop: Last day to add/drop a course with no record is scheduled Monday, September 21, 2015.

Late Drop: Last day to drop a course with “W” is scheduled Thursday October 22, 2015.