

STA 6126 Statistical Methods in Social Research I Spring 2015

Section 7311 MWF 5th period, ll:45am-12:35pm, FLO 100

Instructor Deborah Burr, 116C Griffin-Floyd Hall (FLO); Office Hours: MWF 3:00-3:50pm, or by appointment; Email burr@stat.ufl.edu (put "6126" in the subject line); Phone: 273-2973 (Do not leave a message.)

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Required Materials Textbook Agresti and Finlay, *Statistical Methods for the Social Sciences* 4th Ed., Prentice Hall.

Course Notes At Target Copy. The course notes are an outline of what I will go over in class and are *not* a substitute for class attendance.

Scientific Calculator You need one which will compute the mean and standard deviation automatically. You will use it for tests; a graphing calculator is allowed.

Statistical Software We will use the free statistical computing language R; download it in the first week of the semester from <http://www.r-project.org>

Course Web Page <http://www.stat.ufl.edu/~burrr/Courses/6126>

Course Description This course gives an introduction to concepts of probability and statistics, with examples chosen mainly from social science. Topics include descriptive statistics, probability basics, the sampling distribution of the mean (Central Limit Theorem), estimation, hypothesis testing, and linear regression.

Main Course Objectives (short list)

1. Be able to produce appropriate graphs and descriptive statistics for one and two variables, for both categorical and continuous data; this includes regression.
2. Interpret graphs and descriptive statistics for one and two variables.
3. Know and apply the basic probability rules, the concepts of expected value and variance of discrete distributions, and the binomial and normal distributions.
4. Know the normal distribution and Central Limit Theorem, which form the basis for much of statistical inference.
5. Understand confidence intervals and hypothesis tests.
6. Carry out and interpret one-sample and two-sample analyses for means and proportions.
7. Be familiar with examples of statistical methods that occur in the daily news and in social science research.

Grading Your final course grade will depend on your course score based on the following five components with their respective weights:

Homework/Quizzes:		20%
Midterm 1:	Wednesday February 4 (in class)	20%
Midterm 2:	Wednesday March 11 (in class)	20%
Midterm 3:	Wednesday April 8 (in class)	20%
Final Exam:	Wednesday April 22 8:20-10:20pm (Location TBD) OR Thursday April 30 3:00-5:00pm (FLO 100)	20%

The scale below is tentatively adopted, but may be relaxed.

Grade	Score
A	91-100
A ⁺	88-90
B ⁺	85-87
B	75-84
B ⁻	68-74
C ⁺	60-67
C	50-59
D	40-49
E	<40

Homework There will be approximately nine homeworks to hand in, consisting mainly of some of the textbook exercises. The homeworks will be posted on the course web site at least one week before the due date. Some problems will require use of the R language; an R tutorial will be given in class, and R code will be provided for the assigned problems.

Tests There will be three unit tests and a final exam. There will be some multiple-choice items and some written questions on the midterm exams. The final exam will be a cumulative, multiple-choice exam.

Course Policies

Homework You are allowed to get help with homework problems, but your final write-up must be your own. Homework must be turned in at the beginning of the lecture on the due date. Late homework will not be accepted.

Tests The tests are closed-book, closed-notes. You may bring one 8.5 x 11 sheet of notes to each test. Bring a picture ID, your calculator, pencils and erasers. Makeup exams must be approved before the time of the exam and will be given only in case of medical or family emergencies (which must be appropriately documented). All work must be entirely your own.

Disabilities If you need to request accommodation due to a disability, please register with the Dean of Students office. The Dean of Students will provide documentation, which you then bring to me.