Statistics 6126 Statistical Methods in Social Research I
Fall 2019

Instructor Hani Doss—222 Griffin-Floyd Hall; Office Hours: MWF 8th period, i.e. 3:00–3:50 pm (if you come to see me, please do so before 3:30 pm) and you may also see me right after class if you have short questions; email: `doss@stat.ufl.edu` (do not ask questions regarding the course material by email); phone: 352-273-2991.

Teaching Assistant Yichen Bai—209 Griffin-Floyd Hall; Office Hour: Monday, 11:30-12:30; email: `ybai@ufl.edu`

Course Description and Objectives This is an introductory statistics course whose goal is to enable the students to develop a firm understanding of the fundamental ideas behind statistical reasoning and experimental design, and to learn some of the basic techniques of data analysis. Topics include descriptive statistics, probability basics, the sampling distribution of the mean (Central Limit Theorem), point estimation, confidence intervals, hypothesis testing, and linear regression. Students will be introduced to the R programming language, at the "exposure level" (for the most part, you will not create your own code, but rather run code that is given to you; you will understand what the code is doing; and you will be able to interpret the output).

Grading Your final course grade will be based on the four components below, with the stated weights:

Exam 1:	Wednesday October 2, 8:20 pm, room TBA; covers everything up to and including lecture of Monday September 30. Note the evening time slot.	25%
Exam 2:	Wednesday November 6, 8:20 pm, room TBA; covers everything up to and including lecture of Monday November 4 (with emphasis on material covered after Exam 1). Note the evening time slot.	25%
Final:	Monday December 9, 3:00pm–5:00pm. Comprehensive, but with emphasis on material covered after Exam 2.	34%
Homework:	There will be about 8 homeworks assigned during the semester.	16%

Note the dates and times of the three exams. You should clear your schedule now so that you do not have a conflict with these time slots.

A course average of 93–100 will guarantee an A, 90–92 at least an A^-, 87–89 at least a B^+, 83–86 at least a B, 80–82 at least a B^-, etc. (The tests will be hard, and the actual cutoffs for the grades are almost certain to be lower than these numbers.)

Textbooks and Materials

1 *Introduction to the Practice of Statistics*, by David S. Moore, George P. McCabe, and Bruce Craig, 9th edition, W.H. Freeman, 2017. Note: getting the 8th edition is perfectly fine, and is cheaper.

2 *Introductory Statistics with R*, by Peter Dalgaard, second edition, Springer 2008. This is mainly for reference. I have installed a pdf of the book on the course web page, under

"Homeworks-and-handouts".

3 A scientific calculator: You need one which will compute the mean and standard deviation (a graphing calculator is allowed).

4 Statistical Software: We will use the free statistical computing language R. You should download it from `https://www.r-project.org` and install it before Friday August 23. You may wish to also download Rstudio from `https://www.rstudio.com` (go to `https://www.rstudio.com/products/rstudio/download` to get the free Open Source License).

Course Web Page `http://www.stat.ufl.edu/~doss/Courses/sta6126`

A username and password are needed to enter the Homeworks-and-handouts page; they will be given out in class.

Coverage Roughly, we will cover the material in Chapters 1–8 and 10 of the text (however, the level of this course is higher than that of the book, so there is no real correspondence between what we cover and these chapters). *Note that there will be material covered in lectures which is not found anywhere at all in the textbook, and you will be responsible for that material. You are responsible for everything from lecture*. Do not depend on the course web page for announcements regarding due dates for homework, changes in schedules, etc.

Course Policies

Homework must be turned in at the beginning of the lecture on the due date. Late homework will not be accepted. All work must be entirely your own.

All exams are closed-book, closed-notes; however, you may bring two 8.5 $\times$ 11 sheets of notes to the exams. You should bring a calculator to the tests. 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).

You are responsible for everything from lecture. Do not depend on the course web page for announcements regarding due dates for homeworks, changes in schedules, etc.

I am going to use the projector, and distribute hard copies of the slides (electronic versions of the slides will *not* be available). The hard copies will be distributed once. I am not going to bring slides from the previous lecture for the benefit of those who didn't come to class. The notes that are passed out will be a skeleton of the lectures (in other words, they are going to be incomplete) with the missing material developed during the lecture. Therefore, skipping class and getting a copy of the notes is not going to work.

Cell phones should be turned off (or set on silent). Laptops must be shut.

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, `www.dso.ufl.edu/drc`) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to me when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Students are expected to provide feedback regarding this course by completing online evaluations at `https://evaluations.ufl.edu`. Evaluations are typically open during the

last two or three weeks of the semester, but students will be given specific times when they are open.