STA 4210: Regression Analysis

Fall 2019

Instructor:	Grant Backlund	**Time:**	MWF 1:55pm – 2:45pm
Email:	grantback21@ufl.edu	**Room:**	FLO 0100

Office Hours:
Tuesday: 1:55pm–3:50pm
Thursday: 11:45am–1:40pm
Office: 117D Griffin-Floyd Hall

Teaching Assistant:
The teaching assistant will be Somnath Bhadra (234 Griffin-Floyd Hall, somnath.bhadra@ufl.edu). Somnath will hold regular office hours each week 10:00am–11:00am on Monday, Wednesday, and Friday.

Course Web Page:
I will post announcements, homework assignments, and solutions on the Canvas page for the course.

Course Materials:

1. **Course Notes.** The course notes are available for purchase from Target Copy on University Ave. These incomplete notes are general outlines of topics that will be filled in during lecture. Students should bring these notes with them to **every** lecture.

2. **Textbook.** The following textbook is NOT REQUIRED but recommended if you wish to do the suggested homework problems posted on the course web page: *Applied Linear Statistical Models* by M. Kutner, C. Nachtsheim, J. Neter and W. Li, 5th edition.

3. **Calculator.** You need one which will compute the mean and standard deviation automatically. You will use it for quizzes and tests. A graphing calculator is allowed. Check the manual or look for the following symbols: $\overline{x}$ and either s or σ_{n-1}.

4. **Statistical Software.** We will use the free statistical computing language R; download it in the first few days of the semester from http://www.r-project.org. It is suggested that you also use R-Studio from https://www.rstudio.com.

Course Description:
This course is about the theory and application of linear regression. After some review of basic statistics, we will discuss the simple linear regression model and its matrix formulation, the multiple regression model, and a number of related tools such as model diagnostic measures, collinearity statistics, and variable selection procedures. Computations will be carried out in the R programming language.

Prerequisites:
STA 2023 or STA 3032 or STA 4322 (It is suggested if possible that a linear algebra and programming class be taken prior.)

Tentative Course Outline:
The topics covered will be those from Chapters 1-12 and 14 of the textbook.

Exams:
There will be two exams given **in class** and a final exam. The exams are tentatively scheduled for 1:55–2:45pm on September 27 and November 8. The final is scheduled for 10:00am-12:00pm on December 12.

Homework:
Mastery of the material presented in this course requires a great deal of practice. Most weeks there will be a short homework assignment due on Wednesday **in class.** Because solutions will be posted on Canvas the **same** day that they are to be handed in, **late assignments will not be accepted.** Students may drop their lowest homework score at the end of the semester.

Quizzes:
There will be five quizzes given **in class.** Students may drop their lowest quiz score at the end of the semester.

Grading:
Exam 1: 25%
Exam 2: 25%
Exam 3: 25%
Homework: 15%
Quizzes: 10%

The grading cutoffs will not be more strict than the following:

A: 91% to 100%
A-: 87% to < 91%
B+: 84% to < 87%
B: 80% to < 84%
B-: 77% to < 80%
C+: 74% to < 77%
C: 67% to < 74%
D: 55% to < 67%
E: below 55%

Class Attendance and Make-up Exams:
Requirements for class attendance, make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Students with Disabilities:
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 the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Online Course Evaluation Process:
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last week of the semester, but students will be given specific times when they are open. Summary results of these evaluations are available to students at https://evaluations.ufl.edu/results/.