STA 4210 – Regression Analysis Fall 2022

Tu 11:45-1:40 Th 12:50-1:40 @ FLO 100

Instructor: Dr. Larry Winner

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<u>Textbook:</u> Applied Linear Statistical Models, 5th Ed. By Kutner, Nachtsheim, Neter, and Li (aka Regression Analysis, STA 4210)

Course Notes:

Part 1 (Intro-Chapter 2): https://users.stat.ufl.edu/~winner/sta4210/notes_a.pdf

Part 2 (Chapters 3-4): https://users.stat.ufl.edu/~winner/sta4210/notes_b.pdf

Part 3 (Chapters 5-13): https://users.stat.ufl.edu/~winner/sta4210/notes_c.pdf

Datasets/R Programs: https://users.stat.ufl.edu/~winner/sta4210_notes.html

Tentative Course Schedule:

Week	Topics	Sections
1	Introduction/Review	Appendix A, B, 1.1,1.2
2	Least Squares for Simple Linear Reg	1.3-1.7
3	Inference in SLR	1.8,2.1-2.7
4	General Linear Test, Diagnostics	2.8-2.11,3.1-3.10
5	Simultaneous Inference, Etc. Exam 1	4.1-4.7
6	Matrix Approach to SLR	5.1-5.13
7	Multiple Linear Regression I	6.1-6.8
8	Multiple Linear Regression II	7.1-7.6
9	Quantitative and Qualitative Predictors	8.1-8.7
10	Model Selection/Diagnostics	9.1-9.4, 10.1-10.5
11	Diagnostics, Review, Exam 2	
12	Remedial Measures, Homecoming	11.1-11.5
13	Autocorrelation in Time Series	12.1-12.5
14	Time Series, Thanksgiving	
15	Nonlinear Regression, Logistic Regression	13.1-13.4, 14.1-14.5
16	Review, Exam 3	

Tentative Exam Dates

- Exam 1 Tuesday, September 27
- Exam 2 Tuesday, October 25
- Exam 3 Tuesday, December 6

Grading:

Each exam will count 26.67%, and will contain an in-class and take-home portion. The take-home portion will be posted 2 days prior to the exam. Homework projects will count for the remaining 20%.

Course Policies:

- Any handouts or graded assignments will be only handed out once. It is your responsibility to attend class and obtain course materials. Many handouts will be posted on the web.
- Due to onslaught of e-mail vermin, I will immediately delete any message with an attachment. Any e-mail should be text only with no HTML. E-mail messages should be kept to an absolute minimum, and only used in dire emergencies. E-mail is not a substitute for office hours or lectures.
- For each exam, you will be permitted to bring 1 3"x5" index card. Any formulas must be handwritten, not photocopied. I will provide any necessary tables.
- Keep up with the material, and you should find this to be an interesting, highly applicable course, regardless of your major. It is easy to fall behind, and then it may become overwhelming, as this course is a thorough treatment of Regression Analysis. **Good Luck!**

Course Grade Cut-offs:

Α	A-	B+	В	B-	C+	С	C-	D	E
92	87	82	72	65	60	55	50	40	

Attendance/Exam/Assignment Policies: While attendance is not taken, students are expected to attend lectures and participate in class. Make-up exams will only be considered with documented medical event or conference attendance (graduate students). Early exams will be not given under any circumstances. No late homework will be accepted except for documented extraordinary circumstances. If an exam must be missed due to extraordinary circumstances (that are documented in advance), it must be taken within 1 week of scheduled exam. Please turn off cell phones during classes.

<u>Academic Accommodations:</u> If you have a documented disability and wish to discuss academic accommodations with me, please contact me as soon as possible.

University Grading Points:

Α	A-	B+	В	B-	C+	С	C-	D	E
4	3.67	3.33	3	2.67	2.33	2	1.67	1	0

<u>Online Course Evaluations:</u> The University has an online course evaluation system. Late in each semester (after final withdrawal date), students can go to the GATORRATER portal and evaluate courses. The website is located at: https://evaluations.ufl.edu/evals/Default.aspx.

University Policies:

Academic Dishonesty: All members of the University Community share the responsibility to challenge and make known acts of apparent academic dishonesty. Acts of academic dishonesty will not be tolerated and will be referred to the Student Honor Council.

Incomplete: An incomplete grade may be assigned at the discretion of the instructor as an interim grade for a course in which the student has completed a major portion of the course with a passing grade, been unable to complete course requirements before the end of the term because of extenuating circumstances, and obtained agreement from the instructor and arranged for resolution of the incomplete grade in the next term. Instructors are not required to assign incomplete grades. For complete details please visit:

CLAS incomplete grade policies and forms.

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact <u>umatter@ufl.edu</u>, 352-392-1575, or visit <u>U Matter, We Care website</u> to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the <u>Counseling and Wellness Center website</u> or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the <u>Student Health</u> Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the <u>UF Health Emergency Room and Trauma Center website</u>.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

COVID Information:

In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit one.uf for screening / testing and vaccination opportunities.
- If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.
- As with any excused absence, you will be given a reasonable amount of time to make up missed work.