# STA 4210 – Regression Analysis Spring 2024

MWF 8:30-9:20AM @ LIT 0201

**Instructor:** Dr. Larry Winner

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**TA:** TBA **Office**: **Office Hours**: TBA (See Canvas) **e-mail**:

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

**Course Notes:** 

Part 1 (Intro-Chapter 2): <a href="https://users.stat.ufl.edu/~winner/sta4210/notes">https://users.stat.ufl.edu/~winner/sta4210/notes</a> 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.	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	<b>Model Selection/Diagnostics</b>	9.1-9.4, 10.1-10.5
11	Diagnostics	
12	Remedial Measures	11.1-11.5
13	<b>Autocorrelation in Time Series</b>	12.1-12.5
14	Time Series	
15	Nonlinear Regression, Logistic Regression	13.1-13.4, 14.1-14.5
16	Review, Exam 3	<i>*</i>

## **Tentative Exam Dates**

- Exam 1 Friday, Feb 2 (In-Class)
- Exam 2 Wednesday, March 6 (In-Class)
- Exam 3 Monday, April 29 10:00-12:00AM

## **Grading:**

- Exam 1 25%
- Exam 2 25%
- Exam 3-25%
- Homework Assignments 18%
- In-Class Activities 7%

### **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.
- E-mail messages should be kept to an absolute minimum, and only used in rare circumstances. E-mail is not a substitute for office hours or lectures.
- For each exam, you will be permitted to bring 1 4"x6" 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 Maximal Score 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. 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.

**Academic Accommodations:** 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	Е
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: <a href="https://evaluations.ufl.edu/evals/Default.aspx">https://evaluations.ufl.edu/evals/Default.aspx</a>.

## **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 Care Center website</u>.

University Police Department: Visit <u>UF Police Department website</u> 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 <u>UF Computing Help Desk</u> at 352-392-4357 or via e-mail at <u>helpdesk@ufl.edu</u>.

<u>Career Connections Center</u>: 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.