

STA 6207 – Regression Analysis – Fall 2025 - 15086
MWF 8:30-9:20 (Period 2) – FLO 100

Instructor: Dr. Larry Winner

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Office Hours: TBA

Text: Statistical Regression Analysis (Course Notes)

Supplementary Text: *Applied Regression Analysis, 2nd. Ed.* by Rawlings, Pantula, Dickey (e-book for UF Students through UF Library)

Course Description:

This course provides a survey of theory and applications in linear regression analysis. A full treatment of the linear regression model is covered, focusing on results from mathematical statistics making use of matrix algebra. Computational methods will be used to analyze datasets based on "canned routines" as well as a matrix language.

Tentative Topics (Course Notes Sections) [RPD Sections]:

- Intro to Probability Distributions and Inference (Chapter 1) [N/A]
- Simple Linear Regression in Scalar Form (Chapter 2) [Chapter 1]
- Simple Linear Regression in Matrix Form (Chapter 3) [Chapter 2.1-2.8]
- Distributional Results, Analysis of Variance and Quadratic Forms (Chapter 4) [Chapters 3,4]
- Model Diagnostics and Influence Measures (Chapter 5) [Chapters 10, 11]
- Multiple Regression (Chapter 6) [Chapters 3,7,8,9.6,9.7,12]
 - Model Building: Selection of Independent Variables [Chapter 7]
 - Polynomial Models [Chapter 8]
 - Models with Class Variables [Chapter 9.6-9.7]
 - Transformations [Chapter 12]
- Intro to Nonlinear Models (Chapter 7) [Chapter 15.1-15.3]
- Random Coefficient Regression Models (Chapter 8) [Chapter 18.3]
- Alternative Regression Models (Chapter 9) [N/A]

Tests and Grading:

- (Tentative) Exam 1 (7:30AM – 9:20AM) – Friday, September 26 – 25%
- (Tentative) Exam 2 (7:30AM – 9:20AM) – Friday, October 24 – 25%
- Exam 3 (7:30AM – 9:20AM) – Monday, December 1– 25%
- Homework - 25%

Notes:

- In-class Exams are closed note. I will provide any formulas if necessary
- No make-up exams will be given except under extreme circumstances. Early exams will be given under no circumstances. Any exams affected by unexpected University closure will be given on the next day of classes.
- Homework will be assigned on approximately a bi-weekly basis and you will typically have 4-5 class periods to complete them. No late assignments will be accepted, and you must submit them to UF Canvas. A sample of the assigned problems will be graded.
- R code for examples in the Course Notes are available on UF Canvas.

Maximum Course Grade Cut-offs:

| A | A- | B+ | B | B- | C+ | C | C- | D | E |
|----|----|----|----|----|----|---|----|---|---|
| 93 | 88 | 83 | 75 | 65 | 50 | | | | |

Attendance/Exam/Assignment Policies: While attendance is not taken, students are expected to attend lectures and participate in class.

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:

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

Online Course Evaluations:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under 2 GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

University Policies:

Academic Dishonesty

UF students are bound by The Honor Pledge which states “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Conduct Code specifies a number of behaviors that are in violation of this code and the

possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

In-Class Recording suggested wording: • Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal education use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by an instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private 3 conversations between students in the class or between a student and the faculty or guest lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless, of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Campus Resources:

This course complies with all UF academic policies. For information on those policies and for resources for students, please see <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

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.](#)