STA 3024

Intro to Statistics 2

Fall 2023

If you or a friend is in distress, please do not hesitate and contact umatter@ufl.edu for assistance. Your wellness is our priority and we are here for you. You can also find more resources at https://www.ufl.edu/student-life/health-safety/.

Instructor: Heejun Shin

Office: FLO 103C Email: hshin1@ufl.edu

Office Hours: W,F 11:30-12:30

Teaching Assistant: TBD

Office: - Email: -

Office Hours: -

Lectures: M,W,F 10:40 - 11:30 in CSE A101.

Course Description: In this course, students learn how to summarize data, analyze it, and make appropriate decisions based on it. The sequence of courses STA 2023-3024 provides students with a firm foundation in the basics of applied statistical methods. The prerequisite for this course is STA 2023, which covered chapters 1-10 in the textbook (data collection, graphical and numerical summaries, probability and an introduction to statistical inference). Concepts from STA 2023 will be reviewed as needed. The course focuses on the following four topics:

- 1. Simple Linear Regression and Multiple Regression to predict a quantitative response.
- 2. Analysis of Variance to compare three or more population means.
- 3. Categorical data analysis to study the relationship between two categorical variables.
- 4. Nonparametric Statistics that do not require a normality assumption.

Prerequisites: STA 2023 or equivalent.

Textbook and Lecture Notes: There is no required textbook and lecture notes will be posted on the course website.

Recommended Textbook: Statistics: The Art and Science of Learning from Data, by Agresti, Franklin and Klingenberg, 5th edition, Pearson.

The book is available in an electronic version via Canvas. Older editions of the book contain basically the same information and can be found used in hardcover.

Grades

Quizzes(40%) There will be 4-5 online quizzes, administered through Canvas. You will have three tries for each quiz over a period of several days. As long as you pay attention to the examples covered in class, these quizzes should not be challenging. Therefore, neither the instructor nor the TA will be available to assist you with quiz questions.

Exams(60%) There will be three multiple choice exams each worth 20% of your grade. They will take place during the regular class time, in person (Oct 4th, Nov 13th, Dec 6th). Exam 3 is cumulative.

Letter grades will be assigned as follows:

$$\begin{array}{c|cccc} & A \geq 92 & A- \geq 88 \\ B+ \geq 84 & B \geq 80 & B- \geq 78 \\ C+ \geq 74 & C \geq 70 & D \geq 60 > E \end{array}$$

Grades will be changed only when an error has been made; No negotiation.

Make-up exams are available only in extreme situations. They are designed to be more challenging than regular exams and may have a different format. To request a make-up exam, students are required to submit their request a week before each exam. If no prior arrangement is made, an alternative assignment will be given, with the maximum credit capped at the first quartile of class scores for the regular exam.

Incompletes are only assigned when extraordinary circumstances (such as an accident, or extended hospitalization), arising after the date for dropping the course, prevent the student from completing the course requirements. Having a failing grade in the course is not a valid reason for requesting an Incomplete. Information on Medical Withdrawal or how to Drop a class can be found on UF's website.

Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://disability.ufl.edu/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which will be sent to the instructor. Students with disabilities should follow this procedure as early as possible in the semester and need to do this every semester. Accommodations will not be made retroactively, but only forward from the day that the letter was received. Special circumstances should be discussed with the instructor.

GatorEvals: 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 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/.

Weekly Schedule (subject to change)

	\ 3	,
Week 1	Review Stat 1	
Week $2-3$	Regression Analysis	Quiz 1
Week $4-6$	Multiple Regression	Quiz 2
Week 7	Review	Exam 1
Week 8-10	ANOVA	Quiz 3
Week 11	Categorical data analysis	Quiz 4
Week 12	Review	
Week 13	Nonparametric Statistics	Exam 2
Week 14	Nonparametric Statistics	Quiz 5
Week 15-16	Review	Exam 3