

STA 2023 Honors Introduction to Statistics I Spring 2021

Instructor: Maria Ripol

email: mripol@stat.ufl.edu

zoom office hours: MWF 2:00 -3:00pm

link and passcode will be posted in canvas

phone: (352) 273-2976

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Tutoring

schedule and zoom links will be posted in canvas

Lectures:

Class number 21744 meets MWF 6th pd, 12:50 – 1:40 pm, in FLO 100. Students enrolled in this section are expected to attend the live lectures – there will be no zoom meetings for this section, but there are 16 other sections of the class that will allow you to take the class remotely and asynchronously.

Course Description and Objectives

STA 2023 is an introductory course that assumes no prior knowledge of statistics but does assume some knowledge of high school algebra. Basic statistical concepts and methods are presented in a manner that emphasizes understanding the principles of data collection and analysis rather than theory. Much of the course will be devoted to discussions of how statistics is commonly used in the real world. There are two major parts to this course:

I Data – which includes graphical and numerical summaries to describe the distribution of a variable, or the relationship between two variables (chapters 1, 2 and 3, approximately 3 weeks), and data production to learn how to design good surveys and experiments, collect data from samples that are representative of the whole population, and avoid common sources of biases (chapter 4, 1 week.)

II Probability and Inference – using the language of probability and the properties of numerical summaries computed from a random samples (chapters 5, 6 and 7, 4 weeks), we learn to draw conclusions about the population of interest, based on our random sample, and attach a measure of reliability to them (chapters 8, 9, 10 approximately 8 weeks).

The primary goal of the course is to help students understand how the process of posing a question, collecting data relevant to that question, analyzing data, and interpreting data can help them find answers to real problems from their world.

Materials

1. Required Lecture Notes: will be posted in Canvas for you to print or use electronically. They have an outline of the material, plus the computer output for the examples we will do together in class, so it is essentially your class notebook.
2. Required Scientific Calculator (around \$10 to \$15) that has some basic statistical functions like mean and standard deviation Graphing calculators are not allowed during the exams.
3. Recommended Textbook: Statistics, The Art and Science of Learning from Data, by Agresti, Franklin and Klingenberg, 4th edition, Prentice Hall. Can be purchased hardbound new or used, but most students who decide to get the *optional* textbook prefer the electronic version that is purchased through UF All Access (inside of Canvas) and includes MyLab and Mastering to do the *suggested* homework electronically.

Course Website in CANVAS: <https://ufl.instructure.com/>

This is the portal for UF's E-learning website. You log on using your gatorlink username and password to access the course materials, announcements, grades, online quizzes etc.

Online Quizzes

There will be approximately ten online quizzes, administered through Canvas. You will have three tries for each quiz (with questions randomly generated) over a period of several days. Each quiz will be worth 10 points, and all together will count for 25% of your grade. Quiz details will be announced in class and the course website.

Suggested Homework Problems

The list of suggested homework problems from the textbook will be posted in Canvas. These problems are optional and will help you master the material but will not count towards your grade. You can also get the text as an ebook (using UF All Access inside of Canvas) and do the suggested homework through the MyLab and Mastering link on the course Canvas website.

Exams

There will be three exams given during the semester, each worth 100 points and 25% of your grade. They will take place during in person during our regular class period.

In case of conflict or illness, if a student is unable to take an exam at the scheduled time, they must get in touch with the instructor **prior** to the exam time for any arrangements to be made for a makeup. Each case will be reviewed individually. Valid and detailed documentation is a prerequisite under such extenuating circumstances. A grade of zero is the minimum punishment of any type of dishonesty on an exam.

Exam 1	Mon February 26	In class	Ch. 1 – Ch. 6 Sec. 3
Exam 2	Mon March 22	In class	Ch. 7 Sec. 1 – Ch. 9 Sec. 2
Exam 3	Wed April 21	In class	Ch. 9 -- Ch. 10 Sec. 4

Grades

Grade Structure:

Exam 1	25%
Exam 2	25%
Exam 3	25%
Quizzes	25%

Grading Scale:

A	90% to 100%	C+	74% to 76%
A-	87% to 89%	C	70% to 73%
B+	84% to 86%	C-	64% to 69%
B	80% to 83%	D	60% to 63%
B-	77% to 79%	E	59% and below
(No D+ or D- given)			

UF Grading Policies: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Course Policies

Email to Instructor – will be answered within one working day in most cases. Please be aware that statistical questions should be answered in person (in class or during office hours) since they often require pictures and formulas that make it very hard to communicate through email.

Privacy Policy - Student records are confidential. Only information designated “UF directory information” may be released without your written consent.

Classroom Safety Policies - In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor’s guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing [COVID-19 symptoms](#), please use the UF Health screening system and follow the [instructions on whether you are able to attend class](#).
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work, according to [UF’s attendance policies](#).

Privacy in Zoom Office Hours: The TA’s office hours are open to all students to discuss course material. Any student who joins can listen in on your questions, as they would in the in-person tutoring room. However, the instructor’s office hours will only admit one student at a time, with any others being placed in a waiting room. Students can discuss any personal issues or problems with the instructor during office hours with the guarantee of confidentiality. None of the office hours will be recorded.

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.

University’s Honesty Policy: 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 Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

Grading: Grades will be changed only when an error has been made; negotiation is not appropriate.

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** can be found at <https://umatter.ufl.edu/> Information on how to **Drop a class** can be found in UF's Academic Catalog <https://catalog.ufl.edu/>

Instructor / 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. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals or in their Canvas course menu under GatorEvals.

Other University Services

U Matter, We Care: If you or someone you know is in distress, or needs information on services offered at UF, please contact them: 352-392-1575 umatter@ufl.edu <https://umatter.ufl.edu/>

Student Health Care Center: 352-392-1161 <https://shcc.ufl.edu/>

University Police Department, 352-392-1111 (or 9-1-1 for emergencies) <http://www.police.ufl.edu>

E-learning technical support – contact the UF Computing Help Desk: <http://helpdesk.ufl.edu/>
phone: 352-392-4357 e-mail: helpdesk@ufl.edu.

Weekly Schedule (subject to change if necessary)**STA2023H Spring 2021**

WEEK	TOPICS	ASSESSMENT Online Quizzes open Fri - Mon
Week 1 Jan 11- 15	<i>Intro, Graphs and Numerical Summaries</i>	
Week 2 Jan 18 – 22	<i>Mon – MLK - no class</i> <i>Quartiles and Boxplots, Categorical Variables</i>	Quiz 1
Week 3 Jan 25-29	<i>Regression</i>	Quiz 2
Week 4 Feb 1 - 5	<i>Sampling and Experiments, Probability</i>	Quiz 3
Week 5 Feb 8 - 12	<i>Probability, Continuous Distributions</i> <i>Normal Distribution</i>	Quiz 4
Week 6 Feb 15 – 19	<i>Discrete Probability Distributions</i> <i>Binomial Distribution</i>	Quiz 5
Week 7 Feb 22 – 26	<i>Review</i>	EXAM 1 – FRI
Week 8 March 1 - 5	<i>Sampling Distributions of p-hat and \bar{x}</i>	Quiz 6
Week 9 March 8 – 12	<i>Confidence Intervals for p and μ</i>	Quiz 7
Week 10 March 15 – 19	<i>Significance Tests for Proportions</i>	Quiz 8
Week 11 March 22 – 26	<i>Review</i> <i>Wed – recharge day - no class?</i>	EXAM 2 – FRI
Week 12 March 29 – Apr 2	<i>Significance Tests for Means</i> <i>Other Considerations about Sig Tests</i>	Quiz 9
Week 13 Apr 5 - 9	<i>Comparing Two Groups</i>	Quiz 10
Week 14 Apr 12 - 16	<i>McNemar's Test and Permutation Tests</i> <i>Mixed Inference Problems</i>	EC Quiz
Week 16 Apr 19 - 21	<i>Review</i>	EXAM 3 – WED