

STA2023 Introduction to Statistics I

Syllabus – Summer A 2025

Class Number: 12621

Class Time: M, T, W, R, F | Period 3 (11:00 AM - 12:15 PM)

Location: TUR 2319

Instructor: Ziqian Yang

Email: zi.yang@ufl.edu

Office: FLO 116D

Office Hours: R 12:15-1:15 PM (in person) or by appointment through email

Teaching Assistant: Zeyu Yuwen

Email: zeyu.yuwen@ufl.edu

Office Hours: M 3:00 PM – 5:00 PM, T 3:00 PM – 4:00PM (online)

Zoom Link: <https://ufl.zoom.us/j/6295616352>

Teaching Assistant: Wangxing Zhang

Email: zhangwangxing@ufl.edu

Office: FLO 116D

Office Hours: W 4:00 PM – 5:00 PM, F 4:00 PM – 5:00PM (in person)

Both the instructor's and teaching assistant's office hours will at a time and location/zoom link to be announced during the first week of class. Table above is for your reference, see Canvas Announcement for latest office hour schedule and updates

Course Description and Objective

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 sample (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.

Required Materials:

Lecture Notes:

Available at the course homepage in Canvas. These are needed to follow along with the lectures and to fill in the blanks while following the lectures. You can use them electronically if you can take notes on a pdf file or print them.

Recommended Materials:

Title: Statistics: *The Art and Science of Learning from Data*, 5th Edition

Author(s): Alan Agresti and Christine Franklin

ISBN-13: 978-0133860825

Scientific Calculator:

It should have basic statistical functions (mean, and standard deviation). Graphing calculator is not allowed to use during the exams.

Course Schedule:

	Section	Topic
Week1	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3	Exploring Data with Graphs; Measures of Center, Spread and Position; Regression.
Week2	3.4, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3	Regression; Data from Surveys/Experiments; Probability.
Week3	5.4, 6.1, 6.2, 6.3, 7.1, 7.2	Probability in our Daily Lives; Probability Distributions; Sampling Distributions.
Week4	8.1, 8.2, 8.3	Confidence Intervals for the Population Proportion; Confidence Intervals for the Population Mean.
Week5	9.1, 9.2, 9.3, 9.4, 10.1	Significance Tests
Week6	10.1, 10.2, 10.4	Comparison of Two Proportions and Two Means.

Note: This schedule is subject to change based on the pace of the class or unforeseen circumstances.

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. **Please check this site regularly for updates and announcements, especially before exams.**

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.

You will need to bring a 4-function scientific calculator. See Canvas page for further instructions.

Tentative exam dates

Exam 1 Chapter 1-5 (M1-10) May 27th

Exam 2 Chapter 6-8 (M11-18) June 10th

Exam 3 Chapter 9-10 (M19-24) June 18th

Grades

Grade Structure:

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

Grading Scale:

A 90% to 100% A- 87% to 89% B+ 84% to 86% B 80% to 83% B- 77% to 79%

C+ 74% to 76% C 70% to 73% C- 64% to 69% D 60% to 63%

(No D+ or D- given) E 59% and below

Quizzes will be graded electronically through the course eLearning site. Quizzes will be due at midnight on days that they are due, unless otherwise specified in the announcements on Canvas. Please make sure to finish as soon as possible before the due to avoid possible internet crash.

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

Course Policies

Email to Instructor – will be answered within two working day in most cases. If not, you can send a kind reminder. Please include STA 2023 in the subject line. 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.

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.