

# STA 2023 - Introduction to Statistics 1

Summer A 2023 - Section 1052 (Class 13854)

Meets: in TUR L011.

#### Office Hours

Instructor: Arek Kesiz Abnousi: arek.kesizabnous@ufl.edu, W.F: 10:50-11:50.

# 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.

• Computer with internet access (either at home or on campus). To complete the Canvas quizzes.

#### • Recommended Textbook:

Text: Statistics: The Art and Science of Learning from Data,, 4<sup>th</sup> Edition

Author(s): Alan Agresti and Christine Franklin; ISBN-13: 978-0133860825

• Scientific Calculator that has some basic statistical functions: mean and standard deviation. graphing calculator is not allowed to use during the exams and quizzes.

# Course Material by Week

#### • Week 1

Textbook Sections: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3

Description: Exploring Data with Graphs; Measures of Center, Spread and Position; Regression.

#### • Week 2

Textbook Sections: 3.4, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.3

Description: Regression; Data from Surveys/Experiments; Probability.

#### • Week 3

Textbook Sections: 5.4, 6.1, 6.2, 6.3, 7.1, 7.2

Description: Probability in our Daily Lives; Probability Distributions; Sampling Distributions.

#### • Week 4

Textbook Sections: 8.1, 8.2, 8.3

Description: Confidence Intervals for the Population Proportion; Confidence Intervals for the Population Mean.

#### • Week 5

Textbook Sections: 9.1, 9.2, 9.3, 9.4, 10.1

Description: Significance Tests

#### • Week 6

Textbook Sections: 10.1, 10.2, 10.4

Description: Comparison of Two Proportions and Two Means.

#### Course Assessment:

Exam 1: Modules: 1-12 (Chapters 1-7) - (June 5) 30%

Exam 2: Modules:13-21 (Chapters 8-10) - (June 19) 30%

Quizzes (Daily) 30%

Study and Fill in the blanks in Lecture Notes 10%

#### Letter Grade Distribution:

### Course Description:

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 to emphasize understanding the principles of data collection and analysis rather than theory. Much of the course will be devoted to discussing how statistics are 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), 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).

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), 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).

Prerequisite(s): None.

#### **Assessment:**

#### • Exams

There will be a total of two exams, all done in class. You will need to bring your own scientific calculator (you cannot share one with another student) and a pencil. If you are unable to take an exam at the scheduled time, it is your responsibility to get in touch with me one week prior to the exam 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. In case of illness, you must notify me on the day of the exam by 5pm and must receive a medical excuse. Cell phones must be switched off and in your backpacks and must not be in view during the exam.

# • Canvas Quizzes

- Five per week MTWRF (e-Learning-Canvas) due 11:59pm (same day).
- You will have three attempts.
- It is recommended to take the Quiz after watching/attending and revising the corresponding lecture of the day.
- It is recommended to attend a TA's office if you have many errors on your second attempt.
- There will be a short, 5-point quiz associated with each lecture. Each quiz contains 3-5 questions. These quizzes will be completed in Canvas, and students will have three chances for each quiz, with the highest score counting towards their grade. There will be 23 quizzes in total.

#### • Fill in blanks in Lecture Notes

Study and Fill in the blanks in Lecture Notes - Check Canvas.

# • Suggested Homework (not graded)

Additional homework will be assigned but not graded. A list of recommended homework problems is posted on the e-Learning course page

## Getting Help

- 1. office hours of your instructor.
- 2. office hours of your TA.
- 3. For many classes, not just statistics, at the tutoring lab in the Basement of Broward Hall; a schedule of their hours is at http://www.teachingcenter.ufl.edu/.
- 4. As a last resort, by getting (and paying) a private tutor. A list of private tutors from the Statistics Department can be obtained from the Administrative Specialist of the Statistics department Christine Miron .
- 5. Cross Validated Cross Validated is a question and answer site for people interested in statistics, machine learning, data analysis, data mining, and data visualization.

#### **School Closures**

If classes at the University of Florida are canceled, the course will be suspended until the university re-opens. The University will announce this closure on the University of Florida homepage. Any announcements about the course will be posted at the course e-Learning webpage.

#### Course Policies

- Privacy Policies Student records are confidential. Only information designated "UF directory information" may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance or other information that is not "UF directory information", they will be directed to contact you. More information can be found at <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/student-ferpa-rights.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/student-ferpa-rights.aspx</a>
- E-mail E-mail relating to information about the class should be sent to the instructor at arek.kesizabnous@ufl.edu or through the course management system. Your message will be answered within one working day, in most cases. However, we ask you to please refer to this syllabus and the course website to try to find the answers for yourself. Questions regarding the material covered should be asked during class, at the instructor's office hours, or in the tutoring room. It is often difficult to answer questions regarding material through e-mail.
- Students with Disabilities Students who require special accommodations in class or during exams should follow the procedures outlined by the Disability Resources Program at http://www.dso.ufl.edu/drc/. Please send your letter of accommodations to the instructor as soon as you receive the information. The instructor must be emailed the form 5 business days before the exam date for accommodations to be arranged.

- Instructor's Honor Code We the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.
- Academic Honesty 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 (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-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. Grades will be posted on the e-Learning course page at http://elearning.ufl.edu/. The current UF grading policies for assigning grade points is available at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx
- **Incomplete** Incomplete grades 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.
- THIS COURSE SATISFIES GENERAL EDUCATION CREDITS IN THE MATHE-MATICAL SCIENCES. STUDENTS LEARN HOW TO SUMMARIZE DATA AND HOW TO MAKE APPROPRIATE DECISIONS BASED ON DATA. (This course is the general education category of M.)

#### • Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu/. Evaluations are typically open during the few weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

#### University Services

• U Matter, We Care: Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

•	Sexual	Assault	Recovery	Services(	SARS)	): Student	Health	Center,	392-1161
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The syllabus is subject to change. You will be notified if there is a change.