

# STA 2023: Statistics (In-Class)

## I. Semester Information

Course Information: STA 2023: Statistics

Credit Hours/Contact Hours: 3 credit hours, 3 hours lecture

Pre-Requisites: Math placement test score (PERT: 114-122 (or) Accuplacer Algebra: 72-87 (or) SAT Math: 24.0 (or) ACT Math: 19) or minimum grade of "C" in MAT 0012 or Flexible Placement

Semester, Year, and Section Number: Fall 2023, CRN#80420

The syllabus is subject to change. The syllabus for the course will be available to students by the first day of class.

## II. Contact Information

Instructor: Keith Owens

Instructor Credentials:

- A.A., Gulf Coast Community College
- B.S., University of Florida
- M.S., Mathematical Sciences, University of West Florida

Instructor Phone: 850-769-1551 ext 5877

Instructor Email: [kowens@gulfcoast.edu](mailto:kowens@gulfcoast.edu)

Division Chair: Angelia Reynolds, [areynolds@gulfcoast.edu](mailto:areynolds@gulfcoast.edu); 850-872-3852

Division Administrative Assistant: Scott Spencer, [sspencer@gulfcoast.edu](mailto:sspencer@gulfcoast.edu); 850-747-3229

## III. Approved Course Materials and Resources

Textbook: Elementary Statistics, Larson, 7th edition, 2019, Pearson, ISBN 9780134683416 (hardcover) or 9780134683751 (loose-leaf)

Required Materials: TI-83/84 family calculator.

## IV. Curriculum

Course Description: Topics include summarization of data, probability, probability distributions, normal distribution, statistical estimation, testing hypotheses, linear correlation/regression, and non-parametric statistics. (The combination of STA2023 and STA2122 will not meet the six-hour math General Education requirement. An additional three hours in math will be required.)

Method of Instruction: This course is conducted by the lecture-question-demonstration method. At the beginning of the period, questions from the previous lectures and problem assignments are discussed. Following these discussions, the instructor lectures on current material from the text. Proofs and demonstrations of methods are presented thoroughly,

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when not beyond the scope of the course and the background of the students. A short summary is given and a problem assignment is made. Small group activity is encouraged. The use of the graphing calculator is demonstrated in class. Students are also encouraged to use the videos available in Canvas. Short review quizzes are given throughout the semester. Unit tests are announced in advance through the daily academic schedule. Unit tests are returned and a key provided for review.

### Broad Goals of this Course:

- To gain knowledge of elementary statistics
- To be aware of the capabilities and limitations of statistical methods
- To develop mathematical problem-solving skills
- To enhance calculation skills
- To acquire skills necessary to apply statistical reasoning to real-world applications

### Student Learning Outcomes:

- Apply the definitions of statistical terms.
- Compute, display, and interpret descriptive statistics using graphs and numeric measures.
- Apply the principles of probability to given situations including discrete and continuous random variables.
- Apply the concept of confidence intervals and the underlying theory.
- Perform hypothesis tests for one population, two population, and non-parametric small sample situations.
- Compute the components of linear correlation and linear regression.

## **V. Student Expectations of the Instructor**

Office Hours: During a regular Fall or Spring semester, I am available for 10 office hours (typically walk-in) each week. The specific hours will be posted in Canvas the first week of classes. Availability outside of office hours is by appointment.

Email/voicemail response time: Students who contact me via email can expect a reply within 1 business day. Voicemail will be returned within 1 to 3 business days.

Learning Management System Usage: Students will take on-line formative assessments in Canvas. Before leaving for the day, I will scan in the notes from that day's lecture and post them in Canvas. I also will post keys and handouts. In addition, any outside resources that I find beneficial will be housed in Canvas for student reference, including course videos. The Canvas gradebook will be set up to calculate current averages. Course evaluations will also be administered via Canvas.

## **VI. Expectations of the Student**

Academic Integrity: Honest participation in academic endeavors fosters an environment in which optimal learning can take place and is consistent with the college's mission. Academic misconduct, including cheating or plagiarism, is destructive to the spirit of an

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educational environment and therefore will not be tolerated. "Cheating" includes, but is not limited to, the use of any unauthorized assistance in completing course work. "Plagiarism" includes, but is not limited to, the use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment. Sanctions for incidences of academic misconduct, depending on the severity of the incidence and/or its repetition, may range from receiving an F grade (or zero) for the test, assignment, or activity, to failure of the course, to suspension or dismissal from the program or the College.

Accessibility Statement: Gulf Coast State College supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, reasonable accommodations can be arranged. Prior to receiving accommodations, you must register with Student Accessibility Services. Appropriate academic accommodations will be determined based on the documented needs of the student. For information regarding the registration process, email [sar@gulfcoast.edu](mailto:sar@gulfcoast.edu) or call 850-747-3243.

Recording of Lectures: In accordance with federal and state privacy laws, students may record class lectures for their own personal educational use, in connection with a complaint to the college, or as evidence in internal or external legal proceedings. Students may not publish or upload the recordings or any components thereof without the knowledge and written permission of the faculty member. Failure to obtain permission to publish could lead to the students' having to pay damages, attorney fees, and court costs. For more information about what can be recorded, please see the guidelines on pages 36-38 in the GCSC Student <https://www.gulfcoast.edu/current-students/student-handbooks/2022-2023-student-handbook.pdf>.

Attendance Policy: Attendance in class is vital to your success and is positively correlated with your final grade. Furthermore, attendance with participation is even more highly correlated with your final grade. Please ensure that you are present and participating at each class session. Attendance will be recorded each day and you are expected to attend. If you do not attend class for the first two weeks, you will be withdrawn for non-attendance. Absences of more than one-eighth the course (ie, at four absences in a standard 16 week two class per week semester) may result in withdrawal. YOU MUST ATTEND ON EACH TEST OR EXAM DAY.

Withdrawal Policy: Two withdrawals are permitted per course. After that, a grade will be assigned. Please be concerned about withdrawals. When admitting students into certain programs, universities may calculate withdrawals as grades. There are two kinds of withdrawals.

- **Student Withdrawal:** Students may withdraw from a course prior to the scheduled withdrawal deadline published in the college catalog. The form is on the Internet.
- **Administrative Withdrawal:** This withdrawal is completed by an instructor for excess absences. Withdrawals initiated prior to the published withdrawal deadline will be recorded as "W". After the withdrawal deadline, a student cannot be withdrawn from the course and will receive a grade.

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Grade Forgiveness: A student may repeat a course when a grade of "D" or "F" has been earned. The last grade counts. However, universities may count forgiven grades in calculating the grade point average. Forgiven grades may also be calculated in determining financial aid eligibility.

Attempts: This course, which is a college credit course, may be attempted three times. On the third attempt, 100% of the full cost of instruction will be charged. Students with major extenuating circumstances may submit a letter of appeal stating the circumstances to Counseling Center. All grades from the third and subsequent attempts will be calculated in the grade point average.

### **VII. Measures of Student Performance**

Method of Assessment: There will be four in-class tests for this course. Each test will be worth 20% of your final grade and cover material from the previous unit. At the end of the course, students will have the option to replace their lowest test score with a new test over that unit. This replacement test will not be returned. The remaining 20% of your grade will be formative assessments consisting of quizzes, review material, or graded in-class assignments.

Homework: Homework is assigned daily but is mainly ungraded. At the discretion of the instructor, daily homework grades may be utilized for the formative assessment.

GCSC Grading Scale: The college catalog will be used to convert the numerical average to a letter grade. The college grading scale is: A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0).

Make-up Work: If a unit test is missed, this test will count as the lowest test and will be eligible to be re-taken. No formative assignments will be accepted late. At the discretion of the instructor, a small number of formative assessments may be dropped to accommodate an occasional absence.