San José State University
STAT 95 - Elementary Statistics – Fall 2023
Section 06, 49202

Instructor: Trevor Basil, PhD

Office Location: DMH 232

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Office Hours: Mon/Thurs 10:30 - 11:30am

Class Days/Time: Mon/Wed 9:00 - 10:15am

Classroom: Engineering 403

Prerequisites
"By California State University policy, passage of the Entry Level Mathematics (ELM) is prerequisite to enrollment in this class. Failure to satisfy this prerequisite will result in retroactive assignment of a "U" grade in the course. Information on the ELM is printed in the Testing Section in the front of the Schedule of Classes." Intermediate College Algebra is a prerequisite for this course.

Course Description
This course is designed to provide an overview of elementary statistical procedures used by researchers in the behavioral and social sciences and to prepare students for more advanced statistical techniques presented in other courses.

Course Goals and Student Learning Objectives
Upon successful completion of this course, you will be able to:
1 CLO1 – Use statistical methods to solve quantitative problems, including those presented in verbal form.
2 CLO2 – Demonstrate the ability to use mathematics and statistics to solve real-life problems.
3 CLO3 – Arrive at conclusions based on numerical and graphical data.

Goal 1. Knowledge Base of Statistics: Students will demonstrate familiarity with the major concepts in statistics.
Goal 2. Application of Statistical Concepts: Students will be able to solve mathematical problems including those presented in verbal form.

Goal 3. Critical Thinking Skills: Students will develop the ability to arrive at descriptive and inferential conclusions on the basis of mathematical data presented through such forms as statistics, tables, graphs, and computer outputs,

Goal 4. Values in Psychology: Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Learning Objective 1 (GELO1): Use mathematical methods to solve quantitative problems, including those presented in verbal form.

Learning Objective 2 (GELO2): Demonstrate the ability to use mathematics to solve real life problems.

Learning Objective 3 (GELO3): Arrive at conclusions based on numerical and graphical data.

Learning Objective 4 (Specific to Area B4): Use basic mathematical techniques for solving quantitative problems and elementary numerical calculation

Learning Objective 5 (Specific to Area B4): Understand organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, percentages, measures of central tendency, and spread)

Learning Objective 6 (Specific to Area B4): Apply mathematics to everyday life

Learning Objective 7 (Specific to Area B4): Apply mathematical concepts to statistical inference

Required Texts/Readings

Fundamental Statistics for the Social and Behavioral Sciences by Howard T. Tokunaga
ISBN-13: 978-1506377483 ISBN-10: 1506377483 available through bookstore and Amazon

Textbook is not an option; you will be using it for assignments and you will need the appendices for the exams.

Classroom Protocol

Students are expected to display professionalism and respect for others: Arrive on time. Participate in class. Engage in civil dialogue. Pay attention to the lecture. Do not cheat.

Dropping and Adding

- Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Please refer to the current semester's Catalog Policies if you have additional questions.
- Add/drop deadlines can be found on the current academic calendar.
- The Late Drop Policy is available here. Students should be aware of the current deadlines and penalties for dropping classes.
- Information about the latest changes and news is available at the Advising Hub.

Assignments and Grading Policy

Source	Percentage
3 Exams	60%
Mini Assignments	20%
Quizzes	20%

Exams

- There will be two midterms and one final in-class exam.
- The exams are not cumulative, but the concepts build over time.
- The exams will require a calculator, Canvas, cheat sheet of formulas, and any notes you wish to include.
  - Do not assume because you have a cheat sheet that you will not need to study. The cheat sheet will help with remembering formulas, but it will not help you with understand how to use the formulas.
- The exams will be a combination of multiple-choice answers and problem which will require you to show your work.
  - The exercises assigned each week will be a good guide expected and what concepts need to be understood.

There are extra problems at the end of each chapter with answers in the book for more practice!

Mini Assignments Guides

These homework's are your study guides, they are short, hence the name, and fulfill the minimum 500 words writing requirement for this class.

- Due dates are on canvas and the syllabus.
- They will be graded on a Hybrid pass/No Pass with scores of 0 – 10 – 20.
  - 20 = ALL WORK DONE (most people get this)
  - 10 = ONE exercise is INCOMPLETE. (a few get this)
  - 0 = MORE THAN ONE EXERCISE IS INCOMPLETE with obviously poor effort. (one or two may get this)
- Typing your answers is preferred.
- Where work is done by hand use a camera phone to photograph work on a separate page and upload it to canvas
- You MUST provide the QUESTION FOLLOWED BY THE ANSWER in the sequence of the Mini Guide.
- Late homework will be penalized for tardiness, 10%.
- You may work in groups, but outright copying will not be tolerated. The homework is designed to assist you in understanding the material and providing much needed practical experience in grasping otherwise abstract concepts.

Quizzes

- In class at the beginning of class

Course Grading Scale (% of Total Points):

Letter Grade	Percentage
A	90% or Greater
B	80% to 89%
C	70% to 79%
D	60% to 69%
F	Less than 60%

University Policies

Academic integrity
Students should know that the University's [Academic Integrity Policy](#). Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development.

The [Student Conduct and Ethical Development](#) website is available here.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act
If you need course adaptations or accommodations because of an individual need, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the [Accessible Education Center (AEC)](#) to establish a record of their access.

Learning Assistance Resource Center (Optional)
The [Learning Assistance Resource Center (LARC)](#) is in Room 600 of the Student Services Center. It is designed to for peers to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development.

Assignments and Schedule

Week	Date	Topics, Reading, Assignments, Deadlines
1	8/21	Welcome & Logistics Introduction Ch 1 Types of Stats, Types of Data, Types of Variables
2	8/28	Ch 2 Tables & Figures, Frequency Distributions & Graphs DUE: Mini #1
3	9/4	Ch 3 Central Tendency DUE Mini #2 DUE Mini #3
4	9/11	Ch 4 Variability DUE: Mini #4
5	9/18	Ch 5 Normal Distributions DUE: Mini #5 EXAM 1
6	9/25	Ch 6 Hypothesis Testing & Probability Mini #6
7	10/2	Ch 7 Hypothesis Testing z-stats & t-Stat Mini #7a Mini #7b
8	10/9	Ch 8 Confidence Interval Mini #8
9	10/16	Ch 9 Independent t-test & Dependent t-test Mini #9
10	10/23	Ch 10 Effect Sizes, Power, Signal Detection Theory Mini #10 EXAM 2
11	10/30	Ch 11 ANOVA One-Way Mini #11
12	11/6	Ch 12 ANOVA Two-Way
13	11/13	Ch 13 Correlation
14	11/20	Fall Recess – No classes
15	11/27	Ch 14 Regression Mini #12
16	12/4	Ch 15 Chi Square and Review
Finals	12/11	FINAL EXAM