

**San José State University
Psychology Department
40978, Elementary Statistics, Section 05, FALL 2024**

Instructor: Steven Macramalla
Office Location: DMH 230
Telephone: (831) 234-8451
Email: steven.macramalla@sjsu.edu
Drop-In Hours: Tuesday 12:00PM-1:00PM
Class Days/Time: TuTh 10:30AM - 11:45AM
Classroom: Dudley Moorehead 355

WELCOME TO STATISTICS IN-PERSON

CANVAS & ZOOM



CANVAS

**Lecture Slides
Assignment Submissions
Exams**



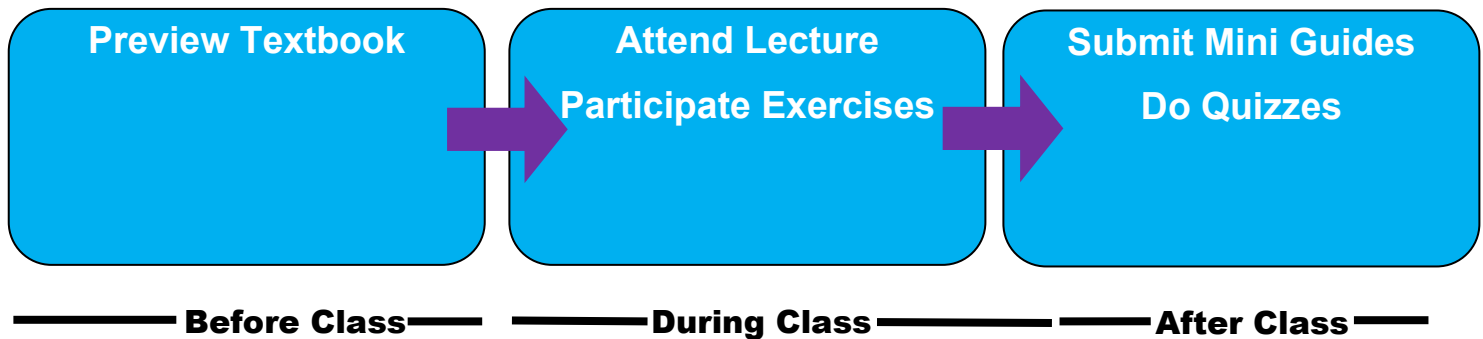
ZOOM

**You May Request
Permission From Me To Attend
One Or All Lectures Online.
However, You Must Have A Valid Reason.**

**Online Attendance: SJSU Code of Conduct
Applies – Be Professional**

COURSE SCHEDULE

We will be covering roughly a chapter a week. Each chapter will follow a rhythm.



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 5. 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

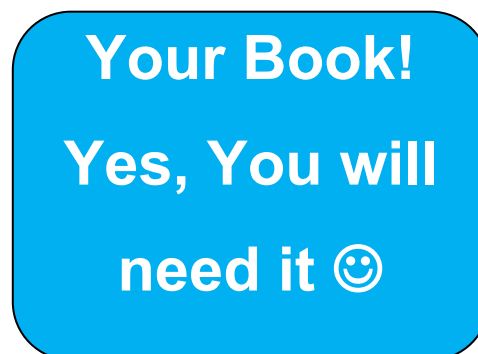
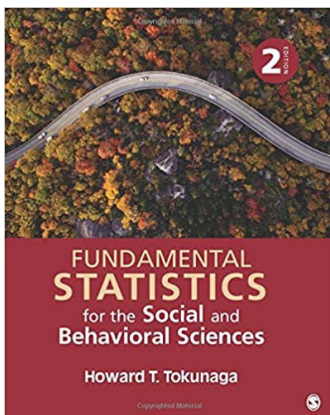
Learning Objective 7 (Specific to Area B4): Apply mathematical concepts to statistical inference

Required Texts/Readings

Fundamental Statistics for the Social and Behavioral Sciences

by Howard T. Tokunaga

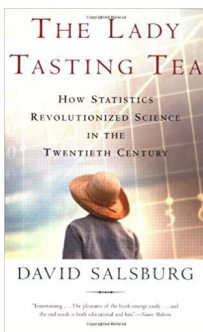
ISBN-13: 978-1506377483 ISBN-10: 1506377483 available through bookstore and Amazon



Textbook is not an option, you will be using them for assignments and you will require the appendices for the exams.

Required: SPSS (Statistical Package for the Social Sciences) and Excel (or equivalent). Software is available for download through the Univeristy MySJSU, required to do homework. If you want a career in research, you want to get introduced to these programs.

Recommended The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century by David Salsburg ISBN0-8050-7134-2
paperback NOT AVAILABLE AT BOOKSTORE, order from Amazon.com or other bookstore.



Submissions On Canvas

- *Quizzes*
- *Mini Guides*
- *Exams*
- *Group Project*

Resources On Canvas

- *Syllabus*
- *Lecture Slides – under FILES*
- *Answer Key to Mini Guides – under FILES*
- *Instructions to Group Project – under FILES*

This is an in-person class with supplementary synchronous resources: you are expected to attend class unless circumstances (family, work etc.) during this pandemic prohibit this, in which case, the class is designed so you can complete the requirements. Please understand, it's a safety net. To get the most out of the class, attend lecture and discussions.

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. Refer to the current semester's [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the [current academic calendar](http://www.sjsu.edu/academic_programs/calendars/academic_calendar/) web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. 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](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>.

Assignments and Grading Policy

Exams x 3	40%
Mini Guides x 12.....	25%
Quizzes.....	15%
Project.....	20%

Course Grading Scale (% of Total Points):

A+ 96-100%	B+ 86-89%	C+ 76-79%	D+ 66-69%	F <60%
A 93-95%	B 83-85%	C 73-75%	D 63-65%	
A- 90-92%	B- 80-82%	C- 70-72%	D- 60-62%	

DO NOT trust the final total you see on Canvas.
Calculate your current grade yourself.
Use this formula:
(AVG Exams x .4) + (AVG Quizzes x .15) + (AVG Mini Guides x .25) + (Project x .2)

MINI ASSIGNMENTS

These homework 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 usually get this)
- Typing your answers is preferred .
- Where work is done by hand use a camera phone to photograph and past the photo into the homework.
- Answer the questions in order and You MUST provide the QUESTION FOLLOWED BY THE ANSWER in the sequence of the Mini Guide.

- Late homework will be penalized for tardiness, 2 points / week automatically by Canvas.
- You may work in groups but outright copying will not be tolerated. The homework is designed to help you grasp abstract concepts.

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, cheat sheet of formulas, and photocopies of the tables in Appendix B.
 - 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 answered in multiple choice (i.e., pick the correct calculated value).
 - 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!

STATS PROJECT

(See “Guideline – Group Project” on Canvas under FILES for detailed instructions)

You will FORM TEAMS OF TWO on Canvas, **groups of 3 require my permission.**

1. Select your research topic
2. Collect your data
 - a. Include appropriate a) DESCRIPTIVE STATISTICS and b) GRAPHS
3. Conduct all steps of hypothesis testing
4. State your conclusion, along with an appropriate GRAPH OF YOUR RESULTS

Submit a presentation on Canvas in **Power Point**, as though you were presenting these slides for a conference or talk. Presentations must be in PPT or you will lose points.

You will present your work during an **in-class poster session**. Print-out the slides from your power-point presentation and post them to a poster-board.

During the class, people will walk around the room, and discuss their findings and compare methods.
You May Bring Snacks and Drinks.

University Policies

Academic integrity

Students should know that the University's [Academic Integrity Policy](http://sa.sjsu.edu/judicial_affairs/faculty_and_staff/academic_integrity/index.html) is available at http://sa.sjsu.edu/judicial_affairs/faculty_and_staff/academic_integrity/index.html. 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](http://www.sa.sjsu.edu/judicial_affairs/index.html) is available at http://www.sa.sjsu.edu/judicial_affairs/index.html.

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 a disability, 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 [Disability Resource Center](http://www.drc.sjsu.edu/) (DRC) at <http://www.drc.sjsu.edu/> to establish a record of their disability.

Learning Assistance Resource Center (Optional)

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed 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. The [LARC website](http://www.sjsu.edu/larc/) is located at <http://www.sjsu.edu/larc/>.

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Week	Date	Topics, Readings, Assignments, Deadlines
1	Aug 22	Welcome & Logistics Introduction: Ch 1 Types of Stats, Types of Data, Types of Variables
2	Aug 27 – 29	Tables & Figures, Frequency Distributions & Graphs Ch 2 DUE: Mini #1
3	Sept 3 – 5	Central Tendency Ch 3 DUE Mini #2 DUE Mini #3
4	Sept 10 – 12	Variability Ch 4 DUE: Mini #4
5	Sept 17 – 19	Normal Distributions Ch 5 DUE: Mini #5 EXAM 1 IN-CLASS ON CANVAS
6	Sept 24 – 26	Hypothesis Testing & Probability Ch 6 Mini #6
7	Oct 1 – 3	Hypothesis Testing z-stats & t-Stat Ch 7 Mini #7a Mini #7b
8	Oct 8 - 10	Confidence Interval Ch 8 Mini #8
9	Oct 15 – 17	Independent t-Test & Dependent t-test Chapter 9
10	Oct 22 – 24	Independent t-Test & Dependent t-test CONT'D Chapter 9 Mini #9
11	Oct 29 – 31	Effect Sizes, Power, Signal Detection Theory Ch 10 Mini #10 EXAM 2 IN-CLASS ON CANVAS
12	Nov 5 – 7	Correlation Chapter 13
13	Nov 12 – 14	Regression Chapter 14 Mini #12 Correlation & Regression
14	Nov 19 – 21	ANOVA One-Way Ch 11

Week	Date	Topics, Readings, Assignments, Deadlines
		Mini #11
15	Nov 26 - 28	THANKSGIVING WEEK – NO CLASSES
16	Dec 3 - 5	ANOVA Two-Way Ch 12 FINAL EXAM THURSDAY DEC 5 IN-CLASS ON CANVAS
		POSTER SESSION FRIDAY, DECEMBER 13 9:45 AM-12:00 PM