San José State University Psychology Department 48565, Elementary Statistics, Section 01, FALL 2022

Instructor: Steven Macramalla

Office Location: DMH 230

Telephone: (831) 234-8451

Email: <u>steven.macramalla@</u>sjsu.edu

Office Hours: TR 12:00PM-1:00PM

Class Days/Time: TR 10:30AM - 11:45PM

Classroom: DMH 353

WELCOME TO STATISTICS IN-PERSON

With CANVAS & ZOOM



CANVAS Lecture Slides
Recorded Lectures
Assignment Submissions
Exams



ZOOM

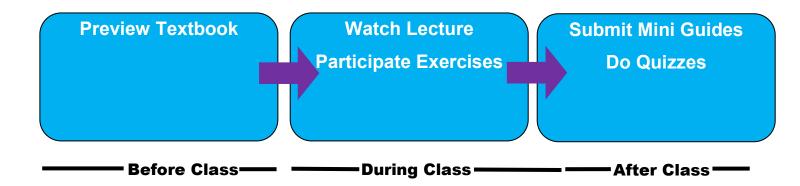
Login to MYSJSU

1 Invite via Email and Canvas
Open Zoom (Mic Off)

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.

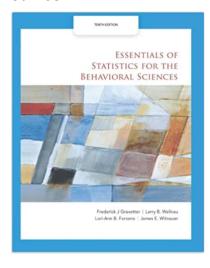
Learning Objective 4 (Specific to Area B4): Use basic mathematical techniques for solving quantitative problems and elementary numerical calculation

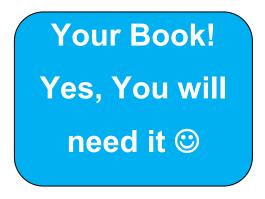
Learning Objective 5 (Specific to Area B4): Understand organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, percentages, measures of central tendency, and spread)

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

Essentials of Statistics for the Behavioral Sciences, 10th edition Gravetter, Frederick J, Wallnau, Larry B., Forzano, Lori-Ann B., Witnauer, James E.

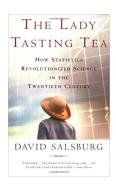




Textbook is not an option, you will be using them for assignments and you will require the appendices for the exams.

Required: SPSS (Statistical Package for the Social Sciences) and Excel (or equivalent). Software is available for download through the University 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.



IN-PERSON+

You Are Expected To Attend...Unless You Can't

This is an in-person class with asynchronous support: 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 on your own time.

Please understand, Zoom is a safety net. To get the most out of the class, attend lecture and discussions.

Classroom Protocol

Zoom / Classroom Protocol

- 1. Be kind courteous to each other the person sitting next to you may be a future customer, partner or spouse. Be attentive and courteous when your classmates speak or ask questions.
- 2. Do not distract other students with chit-chat, cell phones, pagers, etc. TURN OFF YOUR PHONES. Please refrain from using your laptop for anything unrelated to class
- 3. You are expected to attend all class meetings and read the book prior to class as the exams cover material exclusively from either the class or the book. There will be many in-class activities that will depend on a sufficient sample for their success. Please, check the syllabus and mark your calendars now for important dates.
- 4. Please arrive on time and stay for the whole class. In the event you must, please take your seat or leave with the least amount of disruption for the class
- 5. Office hours are not a replacement for reading the text and attending class. If you miss class, get notes from at least two other students.
- 6. I am responsive to levels of participation from students. If you are the type of person who asks a lot of questions with tangential stories or that draws more attention to yourself than to the material in the class and is not really relevant or of benefit to other students, I will ask you to curb your enthusiasm and hold your question for after class. If you are the type of person who hides in the corner,

- wearing similarly colored clothes as the desk for better camouflaging, I will ask you questions in an effort to encourage your participation.
- 7. Cheating will not be tolerated in any form. Period.
- 8. Be kind and respectful to your professor. Please call me 'Sir', 'Professor', or 'Dr. Macramalla', but not 'Steve', 'Steven', 'Dude', 'Buddy' or "Hey! You!" Do not stop me in the middle of a lecture to ask if there will be an assignment due next class session. Hold those kinds of questions to the end of class ask them before we get started on lecture.

Even on Zoom, 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 section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic calendar web page located at

http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The <u>Late Drop Policy</u> 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 <u>Advising Hub</u> at http://www.sjsu.edu/advising/.

Assignments and Grading Policy

Exams x 3	45%
Mini Assignments x 12	35%
Ouizzes	20%

Mini Guides

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.
- You MUST provide the QUESTION FOLLOWED BY THE ANSWER in the sequence of the Mini Guide.
- Late homework will be penalized for tardiness, 5% a day, automatically by Canvas.
- 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.

Exams

- There will be two midterms and one final.
- 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 multiple choice answers with the last few multiple choice questions on a word problem.
 - 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!

Course Grading Scale (% of Total Points):

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

University Policies

Academic integrity

Students should know that the University's <u>Academic Integrity Policy</u> 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 <u>Student Conduct and Ethical</u> Development website 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 <u>Disability Resource Center</u> (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,

earning assistance, summer academic preparation and basic skills development. The <u>ARC website</u> is located at http://www.sjsu.edu/larc/.	

48565, Elementary Statistics, Section 01, FALL 2022

Week	Date	Topics, Readings, Assignments, Deadlines
1	Aug 22-24	Welcome & Logistics Introduction: Ch 1 Types of Stats, Types of Data, Types of Variables DUE: Mini #1 & Quiz #1
2	Aug 30- Sept 1	Tables & Figures, Frequency Distributions & Graphs Ch 2 DUE Mini #2 & Quiz #2
3	Sept 6-8	Central Tendency Ch 3 DUE Mini #3 & Quiz#3
4	Sept 13-15	Variability Ch 4 DUE: Mini #4 & Quiz#4
5	Sept 20-22	Normal Distributions Ch 5 DUE: Mini #5 & Quiz#5 EXAM 1
6	Sept 27-29	Hypothesis Testing & Probability Ch 8 Mini #6
7	Oct 4 -6	Hypothesis Testing z-stats & t-Stat Ch 7 & Chap 8 & Chap 9 Mini #7a Mini #7b
8	Oct 11-13	Confidence Interval Ch 9 Mini #8
9	Oct 18-20	Independent t-Test & Dependent t-test Chapter 10 &11
10	Oct 25-27	Independent t-Test & Dependent t-test CONT'D Chapter 10 &11 Mini #9

Week	Date	Topics, Readings, Assignments, Deadlines
11	Nov 1-3	Effect Sizes, Power, Signal Detection Theory Ch 8 & 9 Mini #10 EXAM 2
12	Nov 8	Correlation Chapter 13
13	Nov 15-17	Regression Chapter 14 Mini #11 Correlation & Regression
14	Nov 22-24	THANKSGIVING BREAK – NO CLASSES
15	Nov 29-Dec 1	ANOVA One-Way Ch 12 Mini #12
16	Dec 6	ANOVA Two-Way Ch 13 Mini #13
17		
		FINAL EXAM TUESDAY, DECEMBER 13