San José State University
Department of Psychology
Statistics 95
Elementary Statistics
Summer 2022

Contact Information

Instructor:	Dr. Howard Tokunaga
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Office Hours:	Mon Wed 1:45pm – 2:15pm or by appointment
Class Days/Time:	Mon Wed 9:00am. – 1:45pm Synchronous
Prerequisites:	High school algebra

Faculty Web Page and MYSJSU Messaging

Course materials such as syllabus, handouts, and assignments can be found on Canvas. You are responsible for regularly checking with the messaging system through MySJSU to learn of any updates. To arrange an appointment outside of office hours, please email me at howard.tokunaga@sjsu.edu.

If you have any questions or concerns, I *strongly* urge you to either visit me during office hours or make an appointment. To facilitate our discussion, please have your class materials (book, calculator, handouts, assignments, etc.) with you

Course Description

The purpose of this course is to introduce you to different types of statistics used in the social and behavioral sciences. More specifically, we're going to focus on the role of statistics in the research process. For each statistical procedure we cover this semester, three basic questions will be addressed: what is it, why (and when) do you use it, and how do you conduct, interpret, and present it.

This course will discuss how to perform calculations correctly. However, much more important is learning how to understand and communicate the results and implications of these calculations. In other words, this course is based as much on logic as on mathematics. The main goal of this course is to help you become comfortable analyzing data and being an informed consumer and practitioner of statistics and research.

Course Goals and Learning Objectives

Course Learning Outcomes (CLO)

Upon successful completion of this course, you will be able to:

CLO1 - Understand the logic of statistical concepts

CLO2 - Use appropriate statistical methods to solve quantitative problems and test hypotheses

CLO3 - Understand the logic and strategies of scientific research designs

Course Format

This course will be a combination of asynchronous (recorded lectures) and synchronous (live lectures) – see the Course Schedule at the end of the syllabus for more information.

Required Texts

Tokunaga, H. T. (2019). Fundamental Statistics for the Social and Behavioral Sciences (2nd ed). Sage.

Other material requirements

Calculator

You must own a hand-held calculator with a statistics mode (e.g., a calculator that has keys that look like $\sum X$, $\sum X^2$) to complete assignments and exams. These calculators can be purchased for $10 - $15 from office supply and department stores; the one I personally recommend is the Texas Instruments TI-30Xa (but not the TI-30X IIs or the TI-30XS).

Handouts

To facilitate your note taking, handouts that follow the outline of the lectures are available in Canvas. You should download the handouts and take notes on them during each lecture.

Course Requirements and Assignments

There will be a total of four examinations, each worth a maximum of 100 points.

NOTE that University policy F69-24, "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

Grading Policy

Your letter grade for this course will be based on a total score obtained from four exams and seven extra credit assignments (out of 400 points) and will be assigned based on the following grading distribution:

Grade	# points	Grade	# points	Grade	# points
A	> 372	B-	320 – 335	D+	268 - 279
A-	360 - 371	C+	308 – 319	D	256 - 267
B+	348 - 359	C	296 – 307	D-	240 - 255
B	336 - 347	C-	280 - 295	F	< 240

Examinations (400 points)

There will be a total of four examinations, each worth a maximum of 100 points. The exams will be taken on Canvas at the days and times listed on the syllabus. The exams will be open book and will consist of multiple choice, short essay, and computational questions based on lecture, textbook, and assignments.

Make-up policy

- There will be NO make-up exams without instructor consent and arrangement before the scheduled start time of the exam
- Makeup exams will only be allowed for unforeseen and unexpected reasons (e.g., health or family emergencies, military deployment).
- Work schedules or personal events (e.g., birthdays, weddings, vacations) are not acceptable reasons for missing an exam
- Written documentation verifying the reason will be required
- When permission is granted, a make-up exam must be completed within 5 days of the originally scheduled test date

Extra credit assignments (possible 42 pts)

There will be seven extra credit assignments, each worth a possible maximum of 6 points. The purpose of these assignments is to help you learn and assess your understanding of the topics covered in textbook and lecture, and they will consist of computational and written answers.

Extra credit assignments will be posted in Canvas. To be eligible for extra credit, you must upload one clearly legible **pdf** file (not jpg files or a Word doc) of your completed assignment into Canvas before the start of the class session in which we'll go over it – late assignments will not be accepted.

We'll go over the extra credit assignments during live Zoom lectures noted on the Course Schedule to answer any questions you have. You should have a copy of your completed assignment in front of you to take notes on or make corrections – your assignments will not be corrected or returned to you. The amount of credit received for these assignments will be posted on Canvas and will based on both the correctness and completeness of your work.

Students may help each other in completing the extra credit assignments; however, each person's completed assignment must reflect their own work. Students may not copy or duplicate another person's assignment; doing so will be a violation of the policy on academic integrity and treated accordingly (see below).

University Policies

University-wide policies relevant to all courses, such as students' rights and responsibilities, academic integrity, accommodations, and attendance and participation, may be found at https://www.sjsu.edu/curriculum/courses/syllabus-info.php.

Academic integrity

In fairness to all students, you're required to understand and follow University policies on academic integrity (http://www.sjsu.edu/senate/docs/F15-7.pdf). *In this class, any instance of cheating, plagiarism, and any other form of academic dishonesty will automatically result in a failing grade (F) for the course - your actions will also be reported to the Office of Student Conduct and Ethical Development*. This policy also applies to students who allow another student to benefit from their work.

Services available for students

Course adaptations and accommodations: Accessible Education Center (AEC) (https://www.sjsu.edu/aec/)

"If you need course adaptations or accommodations because of a disability, or if you need 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 AEC to establish a record of their disability." Academic Senate Policy F06-2 [pdf.]

Mental Health: SJSU Counseling and Psychological Services (CAPS) (https://www.sjsu.edu/counseling/)

"The SJSU Counseling Services is located on the corner of 7th Street and San Carlos Street, in Room 300B, Student Wellness Center. Professional psychologists, social workers, and counselors are available to provide consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit http://www.sjsu.edu/counseling**.**

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Course Schedule

This course will follow the syllabus to the extent possible. However, the timing and specific nature of topics may change. Any changes will be announced in class as far in advance as possible. You are responsible for keeping informed of any changes made to the class schedule.

Date	Class Topic (Scheduled start time)	Reading	Extra Credit Assignment
7/6 (Wed)	*Course introduction* (9am) The research process *Chapter 1 assignment* (12pm)	Ch 1	Chapter 1 assignment
7/11 (Mon)	Measures of central tendency Measures of variability *Chapters 3-4 assignment* (1pm)	Chs. 3–4	Chapters 3-4 assignment
7/13 (Wed)	**Exam #1 (Chapters 1-4)** (9am) Normal distributions	Ch 5	
7/18 (Mon)	*Chapter 5 assignment* (9am) Probability and hypothesis testing *Review of Chapters 5-6* (1pm)	Ch 6	Chapter 5 assignment
7/20 (Wed)	**Exam #2 (Chapters 5 & 6)** (9am) Testing a single mean	Ch 7	
7/25 (Mon)	*Chapter 7 assignment* (9am) Testing the difference between two means *Chapter 9 assignment* (1pm)	Ch. 9	Chapter 7 assignment Chapter 9 assignment
7/27 (Wed)	**Exam #3 (Chapters 7 & 9)** (9am) One-way analysis of variance (ANOVA)	Ch. 11	
8/1 (Mon)	*Chapter 11 assignment* (9am) Correlation and regression *Chapters 13-14 assignment* (1pm)	Chs. 13-14	Chapter 11 assignment Chapters 13-14 assignment
8/3 (Wed)	**Exam #4 (Chapters 11, 13, & 14)** (9am)		

NOTE: *Red italicized type* = Live (synchronous) lecture on Zoom
Regular type = Taped (asynchronous) lecture on Canvas
Bold type = Exam on Canvas