

**San José State University
Department of Psychology
Statistics 115-01/61
Intermediate Statistics
Summer 2022**

Contact Information

Instructor:	Dr. Megumi Hosoda
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Office Hours:	Mon Wed 3:45p.m. – 4:15pm. or by appointment
Class Days/Time:	Mon Wed 11:00a.m. – 3:45p.m. Synchronous
Prerequisites:	Stat 95 (or equivalent)

Faculty Web Page and MYSJSU Messaging

Course materials such as syllabus, handouts, homework assignments, and review questions can be found on Canvas. You are responsible for regularly checking with the messaging system through MySJSU (or other communication system as indicated by the instructor) to learn any updates.

Course Description

Statistical analysis at the intermediate level; descriptive statistics, t-statistic, chi-square, analysis of variance, correlation and regression, and topics in experimental design; use of a statistical program, Statistical Package for Social Sciences (SPSS) 25.0, 26.0, 27.0 or 28.0 for Windows, for statistical analyses and interpretation. Prerequisite: Stat 95 (or equivalent)

Course Goals and Learning Objectives

Course Learning Outcomes (CLO)

The major goal of this course is to provide you with the solid foundation in statistics, by introducing you to the various types of statistics used in psychology and other social sciences. You will understand the logic and strategies of scientific research designs and will learn how to use appropriate inferential statistics to make sense out of data. At the end of the course, you should be able to understand the “what, when, and how” of statistics. That is, you will learn what statistics are available, when to use specific statistics, and how to interpret results.

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

- CLO1 - Understand the logic of statistical concepts
 - This objective is met through lectures

- CLO2 - Use appropriate statistical methods to solve quantitative problems and test hypotheses
 - This objective is met through lectures and homework assignments

- CLO3 - Understand the logic and strategies of scientific research designs
 - This objective is met through lectures and homework assignments

- CLO4 - Run statistical analyses using SPSS and interpret statistical information presented in SPSS output
 - This objective is met through lectures and homework assignments

Course Format

This course will be synchronous – a live lecture.

Required Texts

Textbook

Gravetter, F. J. & Wallnau, L. B. (2017). *Statistics for the Behavioral Sciences* (10th ed.). Boston, MA: Cengage Learning (ISBN 978-1-305-50491-2).

Other material requirements

You will need a calculator. It does not need to be a scientific one but has to have the square root button.

Course Requirements and Assignments

Course requirements include exams and homework assignments. Tentative course calendar includes exam dates and assignment due dates.

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 13 homework assignments (a total point might change due to a change in schedule) and will be assigned based on the following grading distribution.

Tentative

Five examinations	430 pts (60%)(tentative)
Homework assignments	277.5 pts (39%)(tentative)
Let’s get to know each other	5 pts (1%)

Total Point Possible	712.5(tentative)
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A+ = 100-98%	A = 97-93%	A- = 92-90%
B+ = 89-88%	B = 87-83%	B- = 82-80%
C+ = 79-78%	C = 77-73%	C- = 72-70%
D+ = 69-68%	D = 67-63%	D- = 62-60%
F = 59-0%		

Examinations (430 points)(tentative)

There will be four examinations. They will be open-book and open-note. These exams will test your knowledge and understanding of course material. The exams will consist of multiple-choice questions. You will need a calculator for each exam.

Make-up policy

A make-up exam will be given only when

- The reason is exceptional, unforeseen, and unavoidable. Examples of exceptional circumstances are health emergencies, religious obligations, death in the family, and military services. Work scheduling is not a sufficient reason for a make-up.
- You can provide written documentation.
- You notify me **immediately** after you become aware of the circumstances requiring a make-up exam (either prior to the exam or within 24 hours of the scheduled exam).
- When permission is granted, a make-up exam must be completed within 6 days for the originally scheduled test date at my discretion.

Homework Assignments (277.5 points)(tentative)

There will be a total of 13 homework assignments. Homework assignments will require either hand calculations and/or SPSS statistical analyses (the number of homework assignment might change due to a change in schedule). Some assignments

might require producing a brief result section in APA style and/or graphing. The due dates are listed at the end of the syllabus.

Although I accept late assignments without penalty, I encourage you to turn each homework assignment in on the scheduled due date. Many of exam questions are similar to the problems in homework assignments. From my past experience, those who turn assignments in late do not do well in class.

Homework assignments can be sent through Canvas in a pdf file. Rather than sending each page in a pdf file, please send each assignment in one pdf file or assignments in one pdf file. To the extent possible, please do NOT take the pictures of assignment pages and send them to me. You can only write answers to questions on a separate paper, scan it in a pdf file, and send it to me through Canvas. When you write your answers, please write your answers intelligibly.

Extra Credit

There will be three bonus homework assignments.

Tips to help you succeed in Stat115

1. “Attend” all classes and take good notes. The material in the course is cumulative and it becomes more complex as the session progresses. If you miss several lectures, it will become extremely difficult for you to catch up with class. Thus, **it is very crucial that you “attend” all of the class periods.**
2. **Always bring your calculator to class because we spend a great amount of class time calculating.**
3. Form an online study group with fellow students if it is possible.
4. Read assigned readings before each class; read each chapter at least twice.
5. Practice working through the formulas with different data sets.
6. Ask questions in class and during office hours. I am available to help anyone having difficulty in the class. I am your resource person.
7. Complete assignments as soon as the relevant information is presented in class

University Policies

The Office of Graduate and Undergraduate Programs **maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc.**” You may find all syllabus related University Policies and resources information listed on GUP’s [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

Academic integrity

The [University Academic Integrity Policy F15-7](#) requires you to be honest in your academic course work. All infractions need to be reported to the office of Student Conduct and Ethical Development. For this class, all the assignments are to be completed by the individual student unless otherwise specified. If you are caught cheating on an

exam, you will get a score of zero for the exam and such behavior will be reported to the university.

Student Technology Resources

Computer labs for student use are available in the [Academic Success Center](#) at <http://www.sjsu.edu/at/asc/> located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Computers are also available in the Martin Luther King Library. SPSS will be available in the computer labs and on laptops in the Martin Luther King Library. SPSS downloads are done online. <http://its.sjsu.edu/services/software/> .

Below is the step by Step-by-step instructions.

HOW TO DOWNLOAD SPSS

- 1) On any browser, type in <http://its.sjsu.edu/services/software/>
- 2) Click on SPSS and follow the prompt.

Note: Make sure to use your SJSU email account, NOT your personal email.

SJSU Counseling Services

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 [Counseling Services website](#) at <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	Reading	Assignment due
6/1 (Wed)	About this course Review of statistical concepts Descriptive statistics Introduction to SPSS	Chs. 1 – 4	
6/6 (Mon)	Normal distribution z-score Probability Sampling distribution	Chs. 5 – 7	
6/8 (Wed)	Exam 1 (Chs. 1 – 7) Hypothesis testing Review of t-tests t-test with one sample	Chs. 8 - 9	HW 1, 2, & 3
6/13 (Mon)	Review of t-tests Independent samples t-test Repeated measures t-test	Chs. 10 - 11	HW 4 & 5
6/15 (Wed)	Exam 2 (Chs. 8 – 10) Correlation and Regression	Chs. 15 - 16	HW 6
6/20 (Mon)	Correlation and Regression Chi-square	Chs. 15 -16 Chs. 17	HW 7, 8, & 9 Bonus 1
6/22 (Wed)	Exam 3 (Chs, 11, 15, & 16) One-way ANOVA	Ch. 12	HW 10

Date	Class Topic	Reading	Assignment due
6/27 (Mon)	One-way ANOVA Two-way ANOVA	Ch. 12 Ch. 14	HW 11 Bonus 2
6/29 (Wed)	Two-way ANOVA	Ch. 14	HW 12
7/1 (Fri) 7/2 (Sat)	Exam 4 (Chs, 17, 12, & 14) Very last day to turn all the assignments by 5:00p.m. Note that no assignments will be accepted at all after 5:00 p.m.		HW 13 Bonus 3