San José State University  
Department of Psychology  
Statistics 115-02  
Intermediate Statistics  
Spring 2021

Contact Information

Instructor: Dr. Megumi Hosoda  
Office Location: DMH 315  
Telephone: (408) 924-5637  
Email: megumi.hosoda@sjsu.edu  
Office Hours: M W 12:00p.m. – 1:00p.m. or by appointment via zoom  
Class Days/Time: M W 10:30a.m. – 11:45a.m. Synchronous  
Prerequisites: Stat 95 (or equivalent)

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, 26 or 27 for statistical analyses and interpretation. Prerequisite: Stat 95 (or equivalent)

Course Format

This course is synchronous – a live lecture via Zoom. Pre-recorded lectures will be also posted on Canvas. They are used for reviewing material, or catching up on portions missed due to internet connectivity issues or other disruptions. Please note that you are permitted to only view the recordings, not download the videos and the videos should not be used in lieu of live lectures.

Required Texts

Textbook
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 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 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 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

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s get to know each other</td>
<td>5 pts</td>
</tr>
<tr>
<td>Four examinations</td>
<td>424 pts</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>297.5 pts</td>
</tr>
</tbody>
</table>

Total Point Possible 726.5(tentative)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>100-98%</td>
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<tr>
<td>A</td>
<td>97-93%</td>
</tr>
<tr>
<td>A-</td>
<td>92-90%</td>
</tr>
<tr>
<td>B+</td>
<td>89-88%</td>
</tr>
<tr>
<td>B</td>
<td>87-83%</td>
</tr>
<tr>
<td>B-</td>
<td>82-80%</td>
</tr>
<tr>
<td>C+</td>
<td>79-78%</td>
</tr>
<tr>
<td>C</td>
<td>77-73%</td>
</tr>
<tr>
<td>C-</td>
<td>72-70%</td>
</tr>
<tr>
<td>D+</td>
<td>69-68%</td>
</tr>
<tr>
<td>D</td>
<td>67-63%</td>
</tr>
<tr>
<td>D-</td>
<td>62-60%</td>
</tr>
<tr>
<td>F</td>
<td>59-0%</td>
</tr>
</tbody>
</table>

Examinations (424 points)(tentative)

There will be four examinations. These exams will test your knowledge and understanding of course material. The exams will consist of multiple-choice questions. Exams will be open-book and open-note. 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.

Homework Assignments (297.5 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. You can write your answers on a separate
paper, scan it, and upload it to Canvas. Your handwriting should be neat and intelligible.

**A late homework assignment will be accepted with a penalty** (30% reduction of the total possible points). This means that even if you answer all of the questions correctly, your score can never be higher than 70% of the total possible points. Consequently, handing in a late homework assignment will only hurt your grade in the end. Thus, I encourage you to turn each homework assignment in on the scheduled due date.

**Extra Credit**
There will be three bonus homework assignments.

**Classroom Protocol**

**Expectations**
Prior to each class, you are expected to read each assigned chapter. Reading materials prior to class will make the lectures more effective and provide opportunities to clarify concepts, and facilitate your ability to successfully master course materials. Although class attendance is not used for grading, being present and engaged with the course material will contribute to your success and mastery of the material. You are responsible for all announcements, assignments, lectures, and other Zoom meetings whether you are in class or not.

**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
8. Listen to pre-recorded lectures before and after a class.

**Zoom Classroom Etiquette**

1. **Mute your microphone**: To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
2. **Be mindful of background noise and distractions**: Find a quiet place to “attend” class, to the greatest extent possible.
a. Avoid video setups where people may be walking behind you, people
talking/making noise, etc.
b. Avoid activities that could create additional noise, such as shuffling papers, 
listening to music in the background, etc.

3. **Position your camera properly**: Be sure your webcam is in a stable position and 
focused at eye level.

4. **Limit your distractions/avoid multitasking**: You can make it easier to focus on the 
meeting by turning off notifications, closing or minimizing running apps, and putting 
your smartphone away (unless you are using it to access Zoom).

5. **Use appropriate virtual backgrounds**: If using a virtual background, it should be 
appropriate and professional and should NOT suggest or include content that is 
objectively offensive or demeaning.

### 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/)

### Academic Integrity

The [University Academic Integrity Policy F15-7](http://www.sjsu.edu/gup/syllabusinfo/) 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. Grade Forgiveness will not apply to courses for which the original grade was 
the result of a finding of academic dishonesty.

### Technology Requirements

Students are required to have an electronic device (laptop, desktop, or tablet) with a 
camera and built-in microphones. SJSU has a free equipment loan program available for 
students. Students are responsible for ensuring that they have access to reliable Wi-Fi 
during tests. If students are unable to have reliable Wi-Fi, they must inform the instructor, 
as soon as possible or at the latest one week before the test date to determine an 
alternative. For help with using Canvas see Canvas Student Resources 
page([http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources](http://www.sjsu.edu/ecampus/teaching-tools/canvas/student_resources))

SPSS downloads are done online. [http://its.sjsu.edu/services/software/](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/](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 Peer Connections**

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics.

Visit [Peer Connections website](http://peerconnections.sjsu.edu) for more information.

**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](http://www.sjsu.edu/counseling) at http://www.sjsu.edu/counseling.
Stat115 Intermediate Statistics Spring 2021

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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Topic</th>
<th>Reading</th>
<th>Assignment due</th>
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<tbody>
<tr>
<td>1/27 (Wed), 2/1 (Mon), 2/3 (Wed), &amp; 2/8 (Mon)</td>
<td>About this course Review of statistical concepts Descriptive statistics</td>
<td>Chs. 1 – 4</td>
<td>2/8 -- HW1</td>
</tr>
<tr>
<td>2/10 (Wed) &amp; 2/15 (Mon)</td>
<td>Introduction to SPSS z-score Normal distribution</td>
<td>Chs. 5 – 6</td>
<td>2/10 – HW2, 2/15 – HW3</td>
</tr>
<tr>
<td>2/17 (Wed) &amp; 2/22 (Mon)</td>
<td>Sampling distribution</td>
<td>Ch. 7</td>
<td>2/22 – HW4</td>
</tr>
<tr>
<td>2/24 (Wed)</td>
<td>Exam 1 (Chs. 1– 7) Last day to turn in HWs 1-4 in without a penalty</td>
<td></td>
<td>2/24 – HW5</td>
</tr>
<tr>
<td>3/22 (Mon)</td>
<td>Exam 2 (Chs. 8 – 10) Last day to turn HWs 6 &amp; 7 in without a penalty</td>
<td></td>
<td>3/22– HW8 Bonus 1</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Chapters</td>
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<tr>
<td>3/24 (Wed)</td>
<td>Repeated measures t-test&lt;br&gt;Last day to turn HW8 in without a penalty (3/24)</td>
<td>Ch. 11</td>
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<tr>
<td>3/29 (Mon) &amp; 3/31 (Wed)</td>
<td>Spring Recess – No class</td>
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<tr>
<td>4/5 (Mon)</td>
<td>Repeated measures t-test</td>
<td>Ch. 11</td>
<td></td>
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<tr>
<td>4/7 (Wed) &amp; 4/12 (Mon)</td>
<td>Correlation and Regression</td>
<td>Chs. 15 &amp; 16</td>
<td>4/7 – HW9</td>
</tr>
<tr>
<td>4/14 (Wed)</td>
<td>Exam 3 (Chs 11, 15 &amp; 16)&lt;br&gt;Last day to turn HW9 in without a penalty</td>
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<tr>
<td>4/19 (Mon) &amp; 4/21 (Wed)</td>
<td>Chi-square test&lt;br&gt;Last day to turn HW 10 in without a penalty (4/19)</td>
<td>Ch. 17</td>
<td>4/21 – Bonus 2</td>
</tr>
<tr>
<td>4/26 (Mon), 4/28 (Wed) &amp; 5/3 (Mon)</td>
<td>One-way ANOVA</td>
<td>Ch. 12</td>
<td>4/26 - HW11</td>
</tr>
<tr>
<td>5/5 (Wed), 5/10 (Mon), 5/12 (Wed), &amp; 5/17 (Mon)</td>
<td>Two-way ANOVA</td>
<td>Ch. 14</td>
<td>5/5 - HW 12&lt;br&gt;5/17 Bonus 3</td>
</tr>
<tr>
<td>5/25 (Tue)</td>
<td>Exam 4 (Chs, 17, 12, &amp; 14)&lt;br&gt;9:45a.m. ~ 12p.m.</td>
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<tr>
<td>5/27 (Thu)</td>
<td>The very last day to turn HWs 11, 12 &amp; 13 assignments, or late assignments and bonus questions by 5p.m. Note that assignments will NOT be accepted after 5:00 p.m.</td>
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