San José State University
Department of Psychology
Statistics 095
Elementary Statistics Section 02
Summer 2019

Instructor: Dr. Megumi Hosoda
Office Location: DMH Room 315
Telephone: (408) 924-5637
Email: megumi.hosoda@sjsu.edu
Office Hours: T & Th 10:00 – 10:50 am or by appointment
Class Days/Time: T Th 11:00 am – 3:10 pm
Classroom: Clark Building 316
Prerequisites: Math Enrollment Category M-I or M-II, or completion of a GE Area B4 course with a grade of C- or better.

GE/SJSU Studies GE Area B4 (Mathematical Concepts)

Course Canvas Site and MYSJSU Messaging
The course Canvas site is an online resource supplement for this course. The site will be updated regularly throughout the semester. This site contains:

- Syllabus and tentative course schedule
- Course announcements
- Homework assignments
- Power point slides
- Course grades

You are responsible for regularly checking with the messaging system through MySJSU and/or for checking your email and Canvas for announcements

Course Description
Hypothesis testing and predictive techniques to facilitate decision-making; organization and classification of data, descriptive and inferential statistics, central tendency, variability, probability and sampling distributions, graphic representation, correlation and regression, chi-square, t-tests, and analysis of variance. Computer use in analysis and interpretation. This course fulfills a General Education requirement for the B4 (Mathematical Concepts). The major goal of GE is to enable you to use numerical and graphical data in personal and
professional judgments and in coping with public issues. The major purpose of this course is to provide you with a solid foundation in elementary statistics, by introducing you to the various types of statistics used in psychology and other social sciences. In this course, you will learn 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.

**GE Requirements and Content**

1. Stat 95 requires students to write a minimum of 500 words in a manner appropriate to quantitative analysis. The writing requirement will be met via homework assignments (i.e., write results and interpret them). Writing will be assessed for grammar, clarity, conciseness, and coherence.
2. Stat 95 will incorporate issues of diversity in many ways (e.g., in lectures, assignments).
3. In terms of Mathematical Concepts (GE Area B4), Stat95 will focus on:
   a. basic mathematical techniques for solving quantitative problems
   b. elementary numerical computation
   c. the organization, classification, and representation of quantitative data in various forms such as tables, graphs, percentages, and measures of central tendency and spread.
   d. applications of mathematics to everyday life, and
   e. applications of mathematical concepts in statistical inference

**GE/SJSU Studies Learning Outcomes**

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

- **GELO1** -- Use statistical methods to solve quantitative problems, including those presented in verbal form
  - This objective is met through lectures, homework assignments, and exams.

- **GELO2** -- Demonstrate the ability to use mathematics and statistics to solve real-life problems
  - This objective is met through lectures and homework assignments

- **GELO3** -- Arrive at conclusions based on numerical and graphical data.
  - This objective is met through lectures, homework assignments, and Exams

- **B4LO4** – Focus on basic mathematical techniques for solving quantitative problems and elementary numerical calculations
  - This objective is met through lectures and homework assignments

- **B4LO5** – Focus on organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, measures of central tendency, and spread)
  - This objective is met through lectures and homework assignments

- **B4LO6** – Focus on applications of mathematics to everyday life
  - This objective is met through homework assignments
Course Learning Outcomes (CLOs)
Upon successful completion of this course, students will be able to:

CLO1 – Understand a wide array of statistical procedures and the problems for which they can be applied
- This objective is met through lectures, homework assignments, and exams

CLO2 – Communicate in verbal and written form basic concepts, assumptions and theories of the discipline
- This objective is met through homework assignments

Required Texts/Readings

Textbook

The 8th edition of this textbook will be reserved at the library under my name.

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. You will also need four SCANTRON FORM NO.882-E sheets for examinations.

Course Requirements and Assignments
SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in University Policy S12-3 at http://www.sjsu.edu senate/docs/S12-3.pdf.

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.”
Assignments and 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.

<table>
<thead>
<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Four examinations</td>
<td>400 pts</td>
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<tr>
<td>Homework assignments</td>
<td>300 pts</td>
</tr>
<tr>
<td><strong>Total Point Possible</strong></td>
<td>700 pts</td>
</tr>
</tbody>
</table>

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 (400 pts tentative)**

There will be four examinations. Each exam will consist of multiple choice, short answer, and computational questions. Exam questions will be drawn from both the textbook and lectures. Please bring pencils, a good eraser, a calculator, and a scantron (No. 882-E) to each exam.

For computational questions, it is important to show all your work and the steps you underwent to arrive at your answer in order to receive at least partial or full credit.

**Make-up policy**

A make-up exam will only 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, make-up exams must be completed within 6 days for the originally scheduled test date at my discretion.

**Homework Assignments (300 pts tentative)**

There will be a total of 13 homework assignments (i.e., an assignment for every chapter we cover). I encourage you to turn each homework assignment in on the scheduled due date or the scheduled exam date. Many of exam questions, especially computational problems, are similar to the problems in homework assignments. From my past experience, those who turn assignments in late do not seem to do well in class.
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 30% 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.

Note that any homework assignments sent via email will not be accepted.

Tips to help you succeed in Stat95

1. Attend all classes, arrive on time, 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 a study group with fellow students.
4. Read assigned readings before and after each class; read each chapter at least twice.
5. Ask questions in class and during office hours. I am available to help anyone having difficulty in the class. I am your resource person.
6. Make flashcards for important concepts and terms.
7. Complete assignments as soon as the relevant information is presented in class.

Classroom Protocol

In an effort to create a classroom environment conducive to learning, I expect you to the following guidelines to help the class run more smoothly and to limit the amount of distractions that occur.

1. Arrive for class on time. If you arrive late, please enter the class and take a seat as quietly as you can. This will minimize disturbance of the lecture and the concentration of your fellow classmates. Do not come in late and enter into a conversation to catch up on information you missed or expect information you missed to be repeated.
2. If you have to leave early, please do so quietly and sit next to the door so that you don’t distract other students.
3. Do not carry on conversations with others during class.
4. No cell/smart phone use for text messaging, emailing, or talking during any class!
5. Turn off all smart phones and any other devices that produce distraction before class.
6. Remove all earphones and do not listen to music or look at your Instagram, Facebook, Twitter, etc during class time.
Use of Laptops in the Classroom
Laptops are permitted in the classroom for NOTE-TAKING PURPOSES ONLY. Use of laptops for any other purpose (e.g., non-class related activities like emailing friends, or surfing the web) will not be permitted. Students not abiding by these guidelines will be asked to turn off their laptop and will not be allowed to bring it into the classroom in the future.

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 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. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

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.

Consent for Recording of Class and Public Sharing of Instructor Material
University Policy s12-7, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course.

“Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. This permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”

If you would like to record course lectures, please obtain permission for your instructor in writing (via email is ok) or orally and indicate whether you will record for the whole semester or on a class by class basis.

“Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor-generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent”.
**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 at [http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at [http://www.sjsu.edu/aec](http://www.sjsu.edu/aec) to establish a record of their disability.

**SJSU Counseling Service**

The SJSU Counseling Services is located on the corner of 7th Street and San Fernando Street, in Room 201, Administration Building. 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](http://www.sjsu.edu/counseling).
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>Homework Assignment due</th>
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<tbody>
<tr>
<td>6/4 (Tue)</td>
<td>Introduction to Statistics</td>
<td>Ch. 1</td>
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<td>Frequency Distribution</td>
<td>Ch. 2</td>
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<td>6/6 (Thu)</td>
<td>Measures of Central Tendency</td>
<td>Ch. 3</td>
<td>HW 1 &amp; 2</td>
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<tr>
<td></td>
<td>Measures of Variability</td>
<td>Ch. 4</td>
<td></td>
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<tr>
<td>6/11 (Tue)</td>
<td><strong>Exam 1 (Chs. 1 – 4)</strong></td>
<td>Ch. 5</td>
<td>HW 3 &amp; 4 Last day to turn HW1 &amp;2 without penalty</td>
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<td></td>
<td>Z-scores</td>
<td>Ch. 6</td>
<td></td>
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<tr>
<td></td>
<td>Probability</td>
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<tr>
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<td>Probability &amp; Samples</td>
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<tr>
<td>6/13 (Thu)</td>
<td>Probability</td>
<td>Ch. 6</td>
<td>HW 5</td>
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<tr>
<td></td>
<td>Probability &amp; Samples</td>
<td>Ch. 7</td>
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<tr>
<td>6/18 (Tue)</td>
<td>Introduction to Hypothesis Testing</td>
<td>Ch. 8</td>
<td>HW 6 &amp; 7</td>
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<td>Introduction to t-test</td>
<td>Ch. 9</td>
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<tr>
<td>6/20 (Thu)</td>
<td><strong>Exam 2 (Chs. 5-8)</strong></td>
<td>Ch. 10</td>
<td>HW 8 Last day to turn HW 5, 6 &amp; 7 without penalty</td>
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<td>t-test for Two Independent Samples</td>
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<tr>
<td>6/25 (Tue)</td>
<td>t-test for Two Independent Samples</td>
<td>Ch. 10</td>
<td>HW 9</td>
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<tr>
<td></td>
<td>t-test for Two Related Samples</td>
<td>Ch. 11</td>
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<tr>
<td>Date</td>
<td>Exam/Course</td>
<td>Chapters</td>
<td>Notes</td>
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<td>6/27 (Thu)</td>
<td>Exam 3 (Chs. 9-11)</td>
<td>Ch. 12</td>
<td>HW 10 &amp; 11</td>
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<td>Analysis of Variance (ANOVA)</td>
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<td>Last day to turn HW 9 without penalty</td>
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<tr>
<td>7/2 (Tue)</td>
<td>Analysis of Variance (ANOVA)</td>
<td>Ch. 12</td>
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<td>Correlation &amp; Regression</td>
<td>Ch. 14</td>
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<tr>
<td>7/5 (Fri)</td>
<td>Exam 4 (Chs 12 &amp; 14)</td>
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<td>HW 12 &amp; 13</td>
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