San José State University
Department of Psychology
Statistics 095
Elementary Statistics Section 02
Summer 2017

Instructor: Dr. Megumi Hosoda
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Email: Megumi.Hosoda@sjsu.edu
Office Hours: T & Th 10:00 – 11:00 am
Class Days/Time: T Th 11:00 am – 2:45 pm
Classroom: HGH225
Prerequisites: Satisfaction of ELM requirements and 2 years of high school algebra. Failure to satisfy this prerequisite will result in the retroactive assignment of a “U” grade in this course. Information on the ELM can be obtained on the web at http://testing.sjsu.edu/eptelm/

Faculty Web Page and MYSJSU Messaging
The syllabus will be posted at http://www.sjsu.edu/psych/Syllabus/Stat_95. 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 and/or for checking your email and Canvas for announcements

Course Description
Organization and classification of data, graphic representation, measure of central tendency and variability, percentiles, normal curve, standard scores, correlation and regression, and introduction to statistical inference; use of microcomputers for statistical calculations.

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](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>
<th>Assignments</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four examinations</td>
<td>400 pts</td>
<td>57%</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>300 pts</td>
<td>43%</td>
</tr>
</tbody>
</table>
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, an 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 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). Although I accept late assignments without penalty, 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.

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 semester 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.

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**Classroom Protocol**

In an effort to create a classroom environment conducive to learning, I expect you to follow the following classroom etiquette:

1. **Arrive for class on time.** Arriving late disrupts other students and interferes with continuity of the lectures and class activities. If for any reason you cannot avoid being late, please enter the class and take a seat quietly. 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. Leaving early is equally disruptive; please be considerate.

2. **Be polite and respectful to other people in the class.**

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!** If you anticipate an emergency call, please let me know in advance.

5. **Turn off all smart phones and any other devices that produce distraction before class.**

6. **Do not work on any other course material during class, including studying for other exams.**

7. **No laptop allowed in class. You do not need it for this course.**

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**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/)

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**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.
SJSU Counseling Services

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.
Stat095 Elementary Statistics Summer 2017
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>7/11</td>
<td>Introduction to Statistics</td>
<td>Ch. 1</td>
<td></td>
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<tr>
<td></td>
<td>Frequency Distribution</td>
<td>Ch. 2</td>
<td></td>
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<tr>
<td>7/13</td>
<td>Measures of Central Tendency</td>
<td>Ch. 3</td>
<td>Assignments 1 &amp; 2</td>
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<tr>
<td></td>
<td>Measures of Variability</td>
<td>Ch. 4</td>
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<tr>
<td>7/18</td>
<td><strong>Exam 1 (Chs. 1 – 4)</strong> Z-scores Probability</td>
<td>Ch. 5</td>
<td>Assignments 3 &amp; 4</td>
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<tr>
<td></td>
<td>Probability</td>
<td>Ch. 6</td>
<td></td>
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<tr>
<td>7/20</td>
<td>Probability</td>
<td>Ch. 6</td>
<td>Assignments 5</td>
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<tr>
<td></td>
<td>Probability &amp; Samples</td>
<td>Ch. 7</td>
<td></td>
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<tr>
<td>7/25</td>
<td>Introduction to Hypothesis Testing</td>
<td>Ch. 8</td>
<td>Assignments 6 &amp; 7</td>
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<td></td>
<td>Introduction to t-test</td>
<td>Ch. 9</td>
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<tr>
<td>7/27</td>
<td><strong>Exam 2 (Chs. 5-8)</strong> Introduction to the t-statistic</td>
<td>Ch. 9</td>
<td>Assignment 8</td>
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<tr>
<td></td>
<td>t-test for Two Independent Samples</td>
<td>Ch. 10</td>
<td></td>
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<tr>
<td>8/1</td>
<td>t-test for Two Independent Samples</td>
<td>Ch. 10 &amp; 11</td>
<td>HW 9</td>
</tr>
<tr>
<td></td>
<td>t-test for Two Related Samples</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Chapter</td>
<td>Assignments</td>
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<tr>
<td>8/3 (Thu)</td>
<td><strong>Exam 3 (Chs. 9-11)</strong></td>
<td>Ch. 12</td>
<td>Assignments 10 &amp; 11</td>
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<tr>
<td></td>
<td>Analysis of Variance (ANOVA)</td>
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<tr>
<td>8/8 (Tue)</td>
<td>Analysis of Variance (ANOVA)</td>
<td>Ch. 12</td>
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<tr>
<td></td>
<td>Correlation &amp; Regression</td>
<td>Ch. 14</td>
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<tr>
<td>8/10 (Thu)</td>
<td>Correlation &amp; Regression</td>
<td>Ch. 14</td>
<td>HW 12 &amp; 13</td>
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<td><strong>Exam 4 (Chs 12 &amp; 14)</strong></td>
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