San José State University  
Department of Psychology  
Statistics 115  
Intermediate Statistics Section 01  
Summer 2012

Instructor: Dr. Megumi Hosoda  
Office Location: DMH Room 315  
Telephone: (408) 924-5637  
Email: Megumi.Hosoda@sjsu.edu  
Office Hours: TR 1:00 – 2:00 pm or by appointment  
Class Days/Time: TR 9:00am – 12:45 pm  
Classroom: CL238  
Prerequisite: Elementary Statistics (Stat 95)

Course Webpage

The syllabus will be posted at http://www.sjsu.edu/psych/Syllabus/Stat_115. Copies of the course materials such as the syllabus, assignments, handouts, etc. will be found on my faculty web page at http://www.sjsu.edu/people/megumi.hosoda/ or accessible through the Faculty Web Page links on the SJSU home page.

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) 19.0 for Windows, for statistical analyses and interpretation.

Learning Outcomes

The major goal of this course is to provide students with the solid foundation in statistics, by introducing them to the various types of statistics used in psychology and other social sciences. Students will examine 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, students should be able to understand the “what, when, and how” of statistics. That is, students will learn what statistics are available, when to use specific statistics, and how to interpret results.
Course learning outcomes (CLOs)
Upon successful completion of this course, students will be able:

1. To understand the logic of statistical concepts
2. To use appropriate statistical methods to solve quantitative problems and test hypotheses
3. To understand the logic and strategies of scientific research designs
4. To run statistical analyses using SPSS and interpret statistical information presented in SPSS output.

Program Learning Outcomes (PLOs)
Upon successful completion of the psychology major requirements…

PLO1 – Knowledge Base of Psychology – Students will be able to identify, describe, and communicate the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

PLO2 – Research Methods in Psychology – Students will be able to design, implement, and communicate basic research methods in psychology, including research design, data analysis, and interpretations.

PLO3 – Critical Thinking Skills in Psychology – Students will be able to use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior and mental processes.

PLO4 – Application of Psychology – Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues.

PLO5 – Values in Psychology – Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Required Texts/Readings

Textbook

The textbook will be reserved under my name (or course title) at the MLK Library.
Other material requirements

You will need a flash drive for your data files for SPSS outputs and a calculator. You do not need a scientific calculator. You will also need four SCANTRON FORM NO.882-E sheets for examinations. Remember to bring the calculator to every class.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester’s Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic calendar web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Assignments and Grading Policy

Your letter grade for this course will be based on a total score obtained from exams and homework assignments and will be assigned based on the following grading distribution. Note a total point might change due to changes in schedule.

<table>
<thead>
<tr>
<th>Tentative</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Four examinations</td>
<td>340 pts (xx%)</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>284 pts (xx%)</td>
</tr>
<tr>
<td><strong>Total Point Possible</strong></td>
<td><strong>624</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>98%</td>
</tr>
<tr>
<td>C+</td>
<td>78%</td>
</tr>
<tr>
<td>A</td>
<td>93%</td>
</tr>
<tr>
<td>C</td>
<td>73%</td>
</tr>
<tr>
<td>A-</td>
<td>90%</td>
</tr>
<tr>
<td>C-</td>
<td>70%</td>
</tr>
<tr>
<td>B+</td>
<td>88%</td>
</tr>
<tr>
<td>D+</td>
<td>68%</td>
</tr>
<tr>
<td>B</td>
<td>83%</td>
</tr>
<tr>
<td>D</td>
<td>63%</td>
</tr>
<tr>
<td>B-</td>
<td>80%</td>
</tr>
<tr>
<td>D-</td>
<td>60%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60%</td>
</tr>
</tbody>
</table>

Due to extra credit opportunities, a grade adjustment will not be made at the end of the semester, even if your total point for the semester is very close to the next grade on the scale.

Examinations

There will be four examinations. Exams will be based on the lectures and reading and will consist of multiple choice, short answer, and computational questions. Remember to
bring #2 pencils, an eraser, a calculator, and a scantron (No. 882-E) to each exam.

In order for the evaluation process to be fair to every student in the course, it is important to make sure that the conditions of evaluation are as uniform as possible for everyone. This kind of uniformity simply cannot be achieved if some students take the exams on days other than those when the exam is given to the rest of the class. Just the fact that some students would have more time to study for the exam than do those students who take the exam as scheduled is simply unfair.

Therefore, in the interest of maximizing uniformity for evaluation conditions, in fairness to all students in the class who take their exams as scheduled, the following policy will be implemented without exception (i.e., is non-negotiable).

Make-up exams (without a penalty) will be given only under the most extraordinary circumstances, upon approval by your instructor of a typewritten petition with convincingly official supporting documentation attached (e.g., letter from a medical doctor testifying that the student was incapable of attending class to take the exam).

Without your instructor’s approval of a petition as described above, makeup exams will be given with a substantial penalty (30% reduction of the possible highest score). This means that even if you answer all of the questions correctly on the exam, your score can never be higher than 70% of the total possible points (i.e., the highest score you would receive is a C-).

**Homework Assignments**
There will be a total of twelve homework assignments. Homework assignments will require either hand calculations and/or the use of the SPSS (the number of homework assignment might change due to a change in schedule). Some assignments will require producing a brief result section in APA style and/or graphing. The due dates are listed in the syllabus.

A late homework assignment will be accepted with a substantial penalty (20% 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 20% of the total possible points (i.e., the highest score you would receive is a B-). Obviously, handing in a late homework assignment will hurt your grade in the end. Thus, I encourage you to turn each homework assignment in on the scheduled due date or the scheduled exam date.

At my discretion, you could be asked to redo a homework assignment. However, keep in mind that this really occurs.

Any homework assignments sent via email will not be accepted.

**Extra Credit**
There will be two bonus homework assignments and bonus questions in some exams.
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 through the least noticeable door 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 phone use for text messaging, emailing, or calls during any class! If you anticipate an emergency call, please let me know in advance.
5. Turn off all cell phones, headphones, or 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. Do not bring the laptop to class. You do not need it for this course.
8. All professors should be addressed by his or her title (e.g., Dr. or Professor), not by “Hey” or use of other informal language. This is true for all classes, not just this one.

Tips to help you succeed in Stat115

1. Attend all classes, arrive on time, and take good notes.
2. Keep up with course work.
3. Form a study group with fellow students.
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 the resource person.
7. Make flashcards for important concepts and terms.
8. Complete assignments as soon as the relevant information is presented in class.
9. Try to apply statistics to your everyday life and interests – in such areas as sports, finance, business, childrearing, medicine, law, and entertainment.

University Policies

Academic Integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University’s Academic Integrity policy, located at http://www.sjsu.edu/senate/S07-2.htm, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.
Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person’s ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy S07-2 requires approval of instructors.

**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 requires that students with disabilities requesting accommodations must register with the Disability Resource Center (DRC) at http://www.drc.sjsu.edu/ to establish a record of their disability.

**Student Technology Resources**

Computer labs for student use are available in the Academic Success Center located on the 1st floor of the Clark Hall and 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. A student version of SPSS could be purchased at Help Desk in the Clark Hall.

**Learning Assistance Resource Center**

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. The LARC website is located at http://www.sjsu.edu/larc/.

**Peer Mentor Center (Optional)**

The Peer Mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop-in basis, no reservation required. The Peer Mentor Center website is located at http://www.sjsu.edu/muse/peermentor/
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>
</tr>
</thead>
<tbody>
<tr>
<td>6/5 (Tue)</td>
<td>About this course&lt;br&gt;Review of statistical concepts&lt;br&gt;Descriptive statistics</td>
<td>Chs. 1 – 4</td>
<td></td>
</tr>
<tr>
<td>6/7 (Thu)</td>
<td>Introduction to SPSS&lt;br&gt;Normal distribution&lt;br&gt;Probability&lt;br&gt;Sampling distribution&lt;br&gt;&lt;br&gt;Download “Unit Normal Table “ and bring to class</td>
<td>Chs. 5 – 7</td>
<td>HW 1&lt;br&gt;HW2</td>
</tr>
<tr>
<td>6/12 (Tue)</td>
<td>Hypothesis testing&lt;br&gt;Power</td>
<td>Ch. 8</td>
<td>HW 3&lt;br&gt;HW4</td>
</tr>
<tr>
<td>6/14 (Thu)</td>
<td>Exam 1 (Chs. 1 – 8)&lt;br&gt;Last due date for the late HWs 1-4 without a penalty&lt;br&gt;&lt;br&gt;Review of t-tests&lt;br&gt;t-test with one sample&lt;br&gt;Independent samples&lt;br&gt;Repeated measures&lt;br&gt;&lt;br&gt;Download “t-test table” and bring to class</td>
<td>Chs. 9 – 12</td>
<td>HW 5</td>
</tr>
<tr>
<td>6/19 (Tue)</td>
<td>Last due date for the late HW 5 without a penalty&lt;br&gt;&lt;br&gt;Review of t-tests&lt;br&gt;t-test with one sample&lt;br&gt;Independent samples&lt;br&gt;Repeated measures</td>
<td>Chs. 9-12</td>
<td>HW 6</td>
</tr>
<tr>
<td>Date</td>
<td>Class Topic</td>
<td>Reading</td>
<td>Assignment due</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
</tbody>
</table>
| 6/26 (Tue) | **Last due date for the late HWs 6, 7, & 8 without penalty**  
Correlation and Regression  
Chi-square  
ANOVA  
Download “Correlation table” “Chi-square table” and “F table, and bring them to class | Chs. 16 & 17  
Ch. 18  
Ch. 13 |                  |
| 6/28 (Thu) | **Exam 3 (Chs. 16, 17, & 18)**  
One-way ANOVA  
Download “q table” and bring it to class | Ch. 13 | HW 9  
HW 10 |
| 7/3 (Tue)  | **Last due date for the late HWs 9 & 10 without penalty**  
One-way ANOVA  
Two-way ANOVA | Ch. 13  
Ch. 15 |                  |
| 7/5 (Thu)  | **Exam 4 (Chs 13 & 15)**  
Last due dates for the late HWs 11 & 12  
Return all the exams back to me | Ch. 15 | HW 11  
HW 12 |
Student Information Sheet
Intermediate Statistics – Summer 2012

1. Your Name (Please print)

2. Best way to contact you if necessary (e.g., e-mail address)

3. Major(s)/ and Minor

4. Year in school (Freshman, Sophomore, Junior, Senior, Graduate student)

5. Why are you taking this class?

6. Have you ever used SPSS (or PASW)?

7. Would you describe yourself as math phobic? (Explain)

8. Where and when did you take an elementary statistics course? How did you do in the course?

9. Are you planning to pursue a graduate degree? A master degree or a doctoral degree? In what area (be specific if possible)?

10. Any information you would like me to know about you?