San José State University
Psychology Department
24452, Elementary Statistics, Section 05, SPRING 2016

Instructor: Steven Macramalla
Office Location: DMH 230
Telephone: (831) 234-8451
Email: steven.macramalla@sjsu.edu
Office Hours: Tu-Th 12:00PM - 1:30PM
Class Days/Time: Tu-Th 1:30PM - 2:45PM
Classroom: Clark Building 224

Faculty Web Page and MYSJSU Messaging (Optional)
Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on my faculty web page at http://www.sjsu.edu/people/firstname.lastname or accessible through the Quick Links>Faculty Web Page links on the SJSU home page. You are responsible for regularly checking with the messaging system through MySJSU (or other communication system as indicated by the instructor).

1. Prerequisites
"By California State University policy, passage of the Entry Level Mathematics (ELM) is prerequisite to enrollment in this class. Failure to satisfy this prerequisite will result in retroactive assignment of a "U" grade in the course. Information on the ELM is printed in the Testing Section in the front of the Schedule of Classes." Intermediate College Algebra is a prerequisite for this course.

Course Description
This course is designed to provide an overview of elementary statistical procedures used by researchers in the behavioral and social sciences and to prepare students for more advanced statistical techniques presented in other courses.

Course Goals and Student Learning Objectives
Goal 1. Knowledge Base of Statistics: Students will demonstrate familiarity with the major concepts in statistics.
Goal 2. Application of Statistical Concepts: Students will be able to solve mathematical problems including those presented in verbal form.
Goal 3. Critical Thinking Skills: Students will develop the ability to arrive at descriptive and inferential conclusions on the basis of mathematical data presented through such forms as statistics, tables, graphs, and computer outputs,
Goal 5. 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

Essentials of Statistics for the Behavioral Science by Nolan & Heinzen

The Lady Tasting Tea: How Statistics Revolutionized Science in the twentieth Century by David Salsburg ISBN0-8050-7134-2 paperback NOT AVAILABLE AT BOOKSTORE, order from AMAZON.COM (cheaper!) or other bookstore.

Textbooks in stats are not an option, you will be using them for assignments and you will require photocopies of the appendices for the exams. The department has available a computer lab with SPSS (Statistical Package for the Social Sciences) software, which can be used to do exercises in the book which involve SPSS. The book also makes use of Excel functions. We will do some of the exercises involving both programs in class. There will be required assignments involving Excel and SPSS, and especially if you are interested in research as a career, it will be in your interest to have access to these programs. The computer science building has available copies of SPSS for $15. It is a worthwhile investment.

Class Website: http://www.sjsu.edu/people/steven.macramalla/courses/c2/

Classroom Protocol

All students are expected to display professionalism and respect for others. This explicitly includes arriving on time, participating in class, engaging in civil dialog, and paying attention to classroom activities. Please turn off your cell phones and refrain from activities that disrupt the class. If you have to arrive late, seat yourself quietly and near the door. If you have to leave early, be sure to let me know in advance and sit by the door.

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

Exams 3x 40 points ..........120 pts
Assignments 3 x 20 points........60 pts
Total.................................180 pts

Assignments
3 Assignments
– You will need to use Excel and SPSS for assignments
– Hybrid-Pass /No – Pass: scores of 15 / 7.5 / or 0.
  • 20 = ALL WORK DONE (most people get this)
  • 10 = ONE exercise is INCOMPLETE. (a few get this)
  • 0 = MORE THAN ONE EXERCISE IS INCOMPLETE with obviously poor effort. (minority usually get this)

Late homework will be penalized for tardiness. You may work in groups but outright copying will not be tolerated. The homework is designed to assist you in understanding the material and providing much needed practical experience in grasping otherwise abstract concepts. They will be graded on a Hybrid pass/No Pass basis.

Assignments are due on the DAY OF THE EXAM (Assignment #1 on day of Exam 1, etc.)

Exams
There will be two in-class exams and one final exam. The exams are not cumulative, but the concepts build over time.
The exams will require a calculator, scantron, cheat sheet of formulas, and photocopies of the tables in Appendix B.
The exams will be a combination of multiple choice answers and problem which will require you to show your work, to demonstrate you understand the concepts. The exercises assigned each week will be a good guide of what is expected and what concepts need to be understood.

There are extra problems at the end of each chapter with answers in the book for more practice!
The final exam is FINAL EXAM Thursday, May 19 1215-1430, there will be NO opportunity to take the exam at another time. PLAN IN ADVANCE TO BE THERE.

Course Grading Scale (% of Total Points):
A+ 95-100%    B+ 79-82%    C+ 67-69%    D+ 57-59%    F<50%
A 90-94%        B 75-78%    C 63-66%    D 52-56%
A- 83-89%       B- 70-74%    C- 60-62%    D- 50-51%

University Policies

Academic integrity
Students should know that the University’s Academic Integrity Policy is available at http://sa.sjsu.edu/judicial_affairs/faculty_and_staff/academic_integrity/index.html. Your
own commitment to learning, as evidenced by your enrollment at San Jose State University and the University’s integrity policy, require 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.sa.sjsu.edu/judicial_affairs/index.html.

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 in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU’s Academic Policy F06-1 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.

Learning Assistance Resource Center (Optional)

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/.
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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Readings, Assignments, Deadlines</th>
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<tbody>
<tr>
<td>1</td>
<td>Jan 28</td>
<td>Welcome &amp; Logistics Introduction: Types of Stats, Data, Variables Chapter 1 Lady Tasting Tea. Chapter 1</td>
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<td>2</td>
<td>Feb 2-4</td>
<td>Frequency Distributions &amp; How to Lie with Graphs &amp; Central Tendency and Variability <strong>BRING BAG OF CHOCOLATE CHIP COOKIES</strong> Chapter 2 &amp; Chapter 4 (Chapter 3 is nice, too) Lady Tasting Tea Chapter 2</td>
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<td>3</td>
<td>Feb 9-11</td>
<td>Standardization, Z-scores, &amp; Probability, Randomization Ch. 5 &amp; 6; Lady Tasting Tea Chapter 3 &amp; 4 &amp; 5 <strong>BRING 2 DICE</strong></td>
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<td>4</td>
<td>Feb 16-18</td>
<td>Central Limit Theorem Ch. 5 &amp; 6 Con’t</td>
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<td>5</td>
<td>Feb 23-25</td>
<td>Hypothesis Testing with Z-scores Null &amp; Research Hypotheses, Type I &amp; II Errors, Chapter 7</td>
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<td>6</td>
<td>March 1-3</td>
<td>MONDAY EXAM 1 &amp; ASSIGNMENT #1 DUE</td>
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<td>7</td>
<td>March 8-10</td>
<td>Confidence Intervals, Effect Size &amp; Power Chapter 8</td>
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<td>8</td>
<td>March 15-17</td>
<td>Single Sample &amp; Paired Sample t-Tests Chapter 9</td>
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<td>9</td>
<td>March 22-24</td>
<td>Single Sample &amp; Paired Sample t-Tests Con’t Chapter 9</td>
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<td>10</td>
<td>March 29-31</td>
<td>SPRING BREAK</td>
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<td>11</td>
<td>April 5-7</td>
<td>Independent t-Test Chapter 10</td>
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<td>12</td>
<td>April 12-14</td>
<td>EXAM 2 &amp; ASSIGNMENT #2 DUE</td>
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<td>13</td>
<td>April 19-21</td>
<td>Correlation &amp; Regression Chapter 13 &amp; 14</td>
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<td>14</td>
<td>April 26-28</td>
<td>ANOVA One-Way Chapter 11</td>
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<td>15</td>
<td>May 3-5</td>
<td>ANOVA Two-Way Chapter 12</td>
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<td>16</td>
<td>May 10-12</td>
<td>Chi-Square Chapter 15</td>
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<td>Final Exam</td>
<td>FINAL EXAM Thursday, May 19 1215-1430 ASSIGNMENT #3 DUE</td>
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