San José State University
Department of Psychology
Stat 95, Elementary Statistics, Section 02, Fall 2021

Course and Contact Information

| Instructor: | Lesther Papa, Ed.S., Ph.D |
| Office Location: | Dudley Moore Hall (DMH) 323 |
| Telephone: | 408-924-5671 |
| Email: | Lesther.Papa@sjsu.edu |
| Office Hours: | Thursdays, 9-11AM in office; Or by appointment via Zoom |
| Class Days/Time: | Tuesdays & Thursdays, 4:00-5:15pm |
| Classroom | Clark Building 324 |
| Prerequisites | Math Enrollment Category M-I or M-II, or completion of a GE Area B4 course with a grade of C- or better. Notes: Intended for Psychology majors and minors as well as for programs in Behavioral Science, Child Development, Education, Health Science, Nursing, Nutritional Science, Social Science, and Social Work. |
| GE/SJSU Studies Category: | B4 |

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, chi-square, t-tests, and analysis of variance. Computer use in analysis and interpretation.

Course Format
Courses will be in-person and compliant with the most current university health and safety guidelines (for COVID-19). Course format may change to match with any health and safety guidelines.

Classroom Policies
It is expected that students will come to class prepared. This means that students:

1. Will have read any assigned material and finished any quizzes before class starts.
2. Will have access to a laptop, calculator, and mobile device (silenced) ready for class.
3. Will engage in in-class activities and discussions.
4. Can bring drinks to class but no food will be aloud.
5. Masks will be worn throughout the duration of class and must cover a students nose and mouth.
GE Learning Outcomes (GELO)

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

Learning Objective 1 (GELO1): Mathematical concepts courses should prepare the student to use mathematical methods to solve quantitative problems, including those presented in verbal form.

Learning Objective 2 (GELO2): Mathematical concepts courses should prepare the student to demonstrate the ability to use mathematics to solve real life problems.

Learning Objective 3 (GELO3): Mathematical concepts courses should prepare the student to arrive at conclusions based on numerical and graphical data.

Learning Objective 4 (Specific to Area B4): Focus on basic mathematical techniques for solving quantitative problems and elementary numerical calculation

Learning Objective 5 (Specific to Area B4): Focus on organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, percentages, measures of central tendency, and spread)

Learning Objective 6 (Specific to Area B4): Focus on applications of mathematics to everyday life

Learning Objective 7 (Specific to Area B4): Focus on applications of mathematical concepts to statistical inference)

Program Learning Outcomes (PLO)

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. Stat 95 meets this PLO

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. Stat 95 meets this PLO

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. Stat 95 meets this PLO

Required Texts/Readings

Textbook

*This book contains examples and instructions of how to run statistics using Excel. While helpful, most disciplines in the social sciences use SPSS, which will be covered and demoed in class. The Excel examples can be helpful for practice at home and a conceptual demonstration of how calculate the statistics. However, for the purposes of the course, the content of the book matters more than these Excel examples and thus you can omit reading all these examples all together.

Other Technology Requirements / Equipment / Material

Here is a list of equipment/software you will need in order to be successful in the course.

1. Scientific calculator (must have square root & exponent buttons).

2. Computer, Internet, and SJSU library access. Bring laptops to class.
   a) You can borrow a laptop from the SJSU Library: https://library.sjsu.edu/student-computing-services/student-computing-services

3. Mobile device (for in class exercises)

4. SPSS
   a) This statistics program is available via E-Campus (https://www.sjsu.edu/ecampus/software-tools/research-tools/spss.php) and can be downloaded to your computer. Otherwise, SPSS is installed on most computer labs on campus. For more information, please visit the IT Department website (https://www.sjsu.edu/it/) or call their help desk (408-924-1530)

5. Microsoft Word and Excel
   a) SJSU students have FREE access to Microsoft Office 365 (which includes Word & PowerPoint & MS Excel): see SJSU IT Services Software Instructions (https://www.sjsu.edu/it/services/collaboration/software/instructions.php).

Academic Student Support

Tutoring through Peer Connections
Visit this website:  [http://peerconnections.sjsu.edu/](http://peerconnections.sjsu.edu/)

Students must make an appointment for tutoring and request a tutor for Stat 95. Click here for information on making an appointment:  [http://peerconnections.sjsu.edu/appointments/index.html](http://peerconnections.sjsu.edu/appointments/index.html)

Students can’t make an appointment online but they can register online and then call or walk-in to make an appointment (students have to register first).
Phone: 408-924-2587
Location: Suite 600, Student Services Center (under the 10th St. Parking Garage)

**CASA Student Success Center – Tutoring for Stat 95**

Visit this website:  [http://www.sjsu.edu/chahs-ssc/](http://www.sjsu.edu/chahs-ssc/)

Call or email for appointments: 408.924.2910; Email: CASAsuccesscenter@sjsu.edu
Location: MacQuarrie Hall (MH) 533 - top floor of MacQuarrie Hall and a new second location in Room 140 of the Health Building. For updates, students can follow the CASA Student Success Center on Facebook or Twitter (see links on their website)

**Student Technology Training Center**
If you need support and training to use technology, please go to the  [Student Technology Training Center](https://libguides.sjsu.edu/stt c)

**Library Liaison**
Christa Bailey ([christa.bailey@sjsu.edu](mailto:christa.bailey@sjsu.edu))

**Course Requirements and Assignments**

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practical. Other course structures will have equivalent workload expectations as described in the syllabus. More details about student workload can be found in University Policy S16-9.

**Statistical SPSS Analysis Assignments**

You will complete five statistical analysis assignments worth 50 points each. Each assignment will require that you use SPSS along with create applicable graphs using Excel software, and write a concise APA style summary of the results using Word software. APA style summaries must use correct grammar, punctuation, and statistical style (as described in the Publication Manual of the American Psychological Association, 7th ed.; we will review this in class). There is a 500-word writing requirement on topics relevant to this course, which will be covered by these assignment. Your writing will be assessed for grammar, clarity, conciseness, and
coherence. You must turn in your assignment files (i.e., Word and/or Excel) via the course Canvas page (https://sjsu.instructure.com/courses/1372030). More information and assignment guidelines will be given in class.

Statistical Analysis Assignment Make-Up Policy
If you have a legitimate reason for missing the submission due date for a statistical analysis assignment, you may be permitted to make up the assignment. However, you will need to contact Dr. Papa via electronic communication (SJSU email or Canvas course page Inbox) before you will miss the assignment deadline and let him know your legitimate reason for needing an extension and provide documentation verifying the legitimate reason.

If you don’t contact Dr. Papa at least 24 hours after the statistical analysis assignment was due, you will not be allowed a make-up, regardless of whether you have a legitimate excuse for missing the assignment deadline.

In-Class Activities
There will be 15 opportunities to earn credit for in-class activities. Credit for these opportunities will be based on the in-class activities. You will need to be present for the full duration of the class to obtain credit. Students that are more than 5 minutes late to class are ineligible to receive credit.

Check for Understanding Quizzes
There are 15 quizzes throughout the semester. They each have 10 questions, are open-book, open-note, and are untimed. They are due before class time (i.e., due at 4:00pm) on the date indicated on the course schedule. You need to complete a minimum of 10 quizzes. However, if you take more quizzes, then the 10 highest scoring quizzes will be applied to your final grade. If you score more than 100 points in quizzes, left over quiz scores can be applied to your final exam grade.

Exams
There will be five exams, worth 100 points each. All exams will include multiple-choice questions that cover material presented in the book AND in-class and will be administered on Canvas. They are open-note and open book exams, and you will have 1 hour and 15 minutes (1 class period) to complete them once you start and they are due at 11:59pm of they day they are due (Friday at 11:59pm). If there are poor test questions (questions where more than 66% of students miss) you will automatically get credit for that question.

Make-up Exams
If you have a legitimate reason for missing the exam, a makeup exam may be permitted. However, you will need to contact me as soon as you can before the exam is due to alert me that you will miss the exam and let me know your legitimate reason for missing the exam. You will also need to present written documentation verifying the legitimate reason, so that we can schedule the makeup exam as quickly as possible. All make-up exams must be completed before the next exam (e.g., Exam 3 make-up before Exam 4). There are no make-ups for the final exam.

Final Examination
Option 1: No comprehensive final exam. Students will be expected to take a topical exam during the scheduled final examination as indicated in the course calendar and schedule.

Option 2: Shoot for the Moon. Students who complete all quizzes but do less than 69% on exams may opt to “shoot for the moon.” This option allows students who complete all quizzes to take a comprehensive examination of the course to replace all exam scores for their final grade. For example, a student who averages 50-60% on exams 1 through 4 but scores a 75% on the comprehensive exam will earn 75% of all the exam scores (375/500 points). However, if the student scores less than their exam average, the comprehensive exam will only affect their exam 5 score. Thus, a student who averages 60-65% on exams and scores a 55% on the comprehensive exam will earn 55/100 points to add to their course grade. In other words, I will honor whatever scores the student more points.

The university requires, according to University policy S17-1 (http://www.sjsu.edu/senate/docs/S17-1.pdf) which states that, “Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.”

Grading Information

A student’s grade will be based on the total amount of points (1000 possible points) they receive from exams (500 possible points), statistical analysis assignments (500 possible points), in-class activities (150 possible points), and check-for-understanding quizzes (250 points). Below is a breakdown of the amount of points needed to earn the specified letter grades. (NOTE: Individual exam and assignment totals may change over the course of the semester causing a change in the available total point total.) All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades. See University Policy F13-1 (http://www.sjsu.edu/senate/docs/F13-1.pdf) for more details.
Course Grade Breakdown

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>Percentage of Total Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Class Activities</td>
<td>15 x 10 = 150 points</td>
<td>15%</td>
</tr>
<tr>
<td>Statistical Analysis Assignments</td>
<td>5 x 50= 250 points</td>
<td>25%</td>
</tr>
<tr>
<td>Check for Understanding Quizzes</td>
<td>10 x 10 = 100 points</td>
<td>10%</td>
</tr>
<tr>
<td>Exams</td>
<td>5 x 100= 500 points</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>1000 points</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A plus</td>
<td>960 to 1000</td>
<td>96 to 100%</td>
</tr>
<tr>
<td>A</td>
<td>930 to 959</td>
<td>93 to 95%</td>
</tr>
<tr>
<td>A minus</td>
<td>900 to 929</td>
<td>90 to 92%</td>
</tr>
<tr>
<td>B plus</td>
<td>860 to 899</td>
<td>86 to 89%</td>
</tr>
<tr>
<td>B</td>
<td>830 to 859</td>
<td>83 to 85%</td>
</tr>
<tr>
<td>B minus</td>
<td>800 to 829</td>
<td>80 to 82%</td>
</tr>
<tr>
<td>C plus</td>
<td>760 to 799</td>
<td>76 to 79%</td>
</tr>
<tr>
<td>C</td>
<td>730 to 759</td>
<td>73 to 75%</td>
</tr>
<tr>
<td>C minus</td>
<td>700 to 729</td>
<td>70 to 72%</td>
</tr>
<tr>
<td>D plus</td>
<td>660 to 699</td>
<td>66 to 69%</td>
</tr>
<tr>
<td>D</td>
<td>630 to 659</td>
<td>63 to 65%</td>
</tr>
<tr>
<td>D minus</td>
<td>600 to 629</td>
<td>60 to 62%</td>
</tr>
</tbody>
</table>

NOTE: Dr. Papa will NOT provide any student with an informal grade check at any point of the semester. The only grade checks to be provided are those accompanying official SJSU forms (e.g., athletics, Greek life, probation).

Grading Information for GE/100W
For Basic Skills (A1, A2, A3, B4): “This course must be passed with a C- or better as a CSU graduation requirement.”

Links to University Policies

*General Expectations, Rights and Responsibilities of the Student*
Students are encouraged to familiarize themselves with SJSU’s policies and practices via University Policy S90–5 ([http://www.sjsu.edu/senate/docs/S90-5.pdf](http://www.sjsu.edu/senate/docs/S90-5.pdf)). More detailed information
on a variety of related topics is also available in the SJSU catalog (http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html).

**Dropping and Adding**
Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness (http://info.sjsu.edu/static/catalog/policies.html). Add/drop deadlines can be found on the current academic year calendars document (https://www.sjsu.edu/provost/academic_affairs/resources/Academic_Calendars/). The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

**Academic Integrity**
The University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic coursework. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development (https://www.sjsu.edu/studentconduct/).

**Campus Policy in Compliance with the American Disabilities Act**
Presidential Directive 97-03 (https://www.sjsu.edu/president/docs/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 to establish a record of their disability.

**Accommodation to Students' Religious Holidays**
According to University Policy S14-7 (https://www.sjsu.edu/senate/docs/S14-7.pdf), SJSU shall provide accommodation on any graded class work or activities for students wishing to observe religious holidays when such observances require students to be absent from class.

**SJSU Writing Center & Counseling Services**
The SJSU Writing Center is located in Clark Hall, Suite 126. To make an appointment or to refer to the online resources offered through the Writing Center, visit their website at http://www.sjsu.edu/writingcenter.

SJSU Counseling Services is located in the Student Wellness Center (SWC), Room 300B. To schedule an appointment or learn more information, visit the Counseling Services website at http://www.sjsu.edu/counseling.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Readings</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>08/19</td>
<td>Course Introduction</td>
<td>Introduction Assignments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flipgrid on Canvas Due before class on 8/24.</td>
</tr>
<tr>
<td></td>
<td>08/26</td>
<td>Variables &amp; Measurement Salkind, pp.154-159 (stop before Reliability section)</td>
<td>Quiz #2: Variables &amp; Measurements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Introduction to SPSS (In-class)</td>
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<tr>
<td>3</td>
<td>08/31</td>
<td>Central Tendency &amp; Variability Salkind, pgs. 51-93</td>
<td>Quiz #3: Central Tendency &amp; Variability</td>
</tr>
<tr>
<td>09/02</td>
<td></td>
<td><strong>Exam #1 Review: Statistics &amp; Research Concepts, Variables and Measurement, Central Tendency and Variability; SPSS Assignment #1 Review</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>09/07</td>
<td>Graphing Descriptive Data Salkind, pgs. 96-125</td>
<td>Quiz #4: Graphing Descriptive Data</td>
</tr>
<tr>
<td></td>
<td>09/09</td>
<td>Graphing Descriptive Data in SPSS</td>
<td><strong>Exam #1 &amp; SPSS Assignment 1 Due Friday 09/10 at 11:59PM</strong></td>
</tr>
<tr>
<td>5</td>
<td>09/14</td>
<td>Correlation Salkind, pgs. 127-150</td>
<td>Quiz #5: Correlation</td>
</tr>
<tr>
<td>09/16</td>
<td></td>
<td><strong>Exam 2 Review: Central Tendency, Variability, &amp; Correlations.</strong></td>
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<tr>
<td>6</td>
<td>09/21</td>
<td>SPSS Assignment # 2 Review</td>
<td></td>
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<tr>
<td>09/23</td>
<td></td>
<td>Frequency Distributions The Normal Distribution &amp; Z-Scores Salkind, pp. 194-203</td>
<td>Quiz #6: Normal Distribution <strong>Exam #2 and SPSS Assignment 2 Due Friday 09/24 at 11:59PM</strong></td>
</tr>
<tr>
<td>7</td>
<td>09/28</td>
<td>Z-Scores Salkind pp. 203-220</td>
<td>Quiz #7: Z-Scores</td>
</tr>
<tr>
<td>Date</td>
<td>Assignment</td>
<td>Notes</td>
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</tbody>
</table>
| 09/30  | Statistical Significance  
Salkind, pp. 221-229 | Quiz #8: Statistical Significance                                       |
| 8      | 10/05 Intro to Inferential Statistics  
Salkind, pp. 229-238 | Quiz #9: Intro to Inferential Statistics                                |
| 10/07  | One-Sample Z-Test  
Salkind, pp. 240-250 | Quiz #10: One-Sample Z-test                                             |
| 9      | 10/12 Intro to T-tests/SPSS One-Sample t-Tests                            |                                                                       |
| 10/14  | Exam #3 Review  
Normal Distribution, Z-Scores, Intro to Inferential Statistics, One-Sample Z-Test |                                                                       |
| 10     | 10/19 Independent-Samples t-Test  
Salkind, pp. 251-268 | Quiz #11: Independent Samples t-test                                   |
| 10/21  | SPSS Assignment 3 Review | Exam # 3 Due on 10/22 at 11:59pm.                                      |
| 11     | 10/26 Repeated Measures t-Test  
Salkind, pp. 270-282 | Quiz #12: Repeated Measures t-Test                                     |
| 10/28  | SPSS Inferential Statistics Review | SPSS Assignment 3 Due at 11:59pm.                                      |
| 12     | 11/02 Analysis of Variance (ANOVA)  
Salkind, pp. 285-300 | Quiz #13: Analysis of Variance                                          |
| 11/04  | SPSS Assignment 4 Review  
Exam 4 Review  
t-Tests and ANOVA |                                                                       |
| 13     | 11/09 Nonparametric tests  
Chi-Square  
Salkind, pp. 351-362 | Quiz #14: Non-parametric Tests                                         |
| 11/11  | Nonparametric tests  
Chi-Square  
Salkind, pp. 351-362 | Exam # 4 and SPSS Assignment 4 Due at 11:59pm.                         |
| 14     | 11/16 SPSS Assignment 5 Review |                                                                       |
| 11/18  | SPECIAL TOPIC | SPSS Assignment 5 Due Friday at 11:59pm  
Decision to Shoot the Moon |
| 15     | 11/23 NO CLASS: Thanksgiving Break |                                                                       |
| 11/25  | NO CLASS: Thanksgiving Break |                                                                       |
| 16     | 11/30 Factorial ANOVA  
Salkind, pp. 303-317 | Quiz #15: Factorial ANOVA                                              |
| 12/02  | Factorial ANOVA on SPSS  
Review for Exam #5 |                                                                       |
<table>
<thead>
<tr>
<th>Final Exam</th>
<th>12/10</th>
<th>FRIDAY 12:15pm-2:30pm</th>
<th>EXAM #5: FACTORIAL ANOVA &amp; NONPARAMETRIC TESTS OR COMPREHENSIVE EXAM (EXAMS 1-5)</th>
</tr>
</thead>
</table>

EXAM #5: FACTORIAL ANOVA & NONPARAMETRIC TESTS
Due Friday at 2:30pm on Canvas. You will get 2 hours and 15 minutes to complete it.

COMPREHENSIVE EXAM (EXAMS 1-5)
You will come to class to complete this exam via scantron. You will have the entire duration of time as well.

***Course schedule is subject to change and will updated to reflect any necessary changes.***