San José State University  
Department of Psychology  
Stat 095, Elementary Statistics, Section 1, Spring 2012

Instructor: Don Kalar, Ph.D.
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Telephone: (408) 924-5679
Email: donald.kalar@sjsu.edu
Office Hours: By appointment, before and after lecture
Class Days/Time: Tuesdays, 6:00-8:45 p.m.
Classroom: DMH 348
Prerequisites: Satisfaction of ELM requirements; 2 years of H.S. algebra.
GE/SJSU Studies Category: B4 (Mathematical Concepts) and CAN STAT 2

Faculty and Course Web Page

Course web site: https://sjsu.desire2learn.com
1. Login using MySJSU ID.
2. See http://www.online.sjsu.edu/ for more information if you are having difficulty accessing the course site.
3. The best method of contacting me is via email (donald.kalar@sjsu.edu), though if it is a question that others may benefit from please consider using the course website discussion board. I will do my best to respond promptly. Note that the desire2learn website has an email function, but it is internal to the website, and I do not check the desire2learn email account with the same regularity.

Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on the Desire2Learn site. You are responsible for regularly checking the website. All course announcements will be made on that site.

Course Description

Organization and classification of data, graphic representation, measures of central tendency and variability, percentiles, normal curve, standard scores, correlation and regression, and introduction to statistical inference; use of microcomputers for statistical calculations. The major goal is to enable the student to use numerical and graphical data in personal and professional judgments and in coping with public issues. We also will consider other topics, including
experimental and non-experimental research designs, causation, effect size and strength of association measures, and confidence intervals.

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 SPSS assignments (described below). Writing will be assessed for grammar, clarity, conciseness, and coherence. For writing help, visit the LARC in the SSA or the Writing Center in Clark Hall 126 (http://www.sjsu.edu/writingcenter/). I will also assist you with writing during office hours or via the course web site.

2. Stat 95 will incorporate issues of diversity in many ways (e.g., in lectures, films, assignments)

3. In terms of Mathematical Concepts (GE Area B4), Stat 95 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, rates, percentages, measures of central tendency and spread
   d. Applications of mathematics to everyday life
   e. Applications of mathematical concepts in statistical inference

GE/SJSU Studies Learning Outcomes (LO)

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

1. To use statistical methods to solve quantitative problems, including those presented in verbal form
2. To demonstrate the ability to use mathematics and statistics to solve real-life problems
3. To arrive at conclusions based on numerical and graphical data.

Required Texts/Readings

Textbook


*NOTE*: Homework assignments will come from this edition of the textbook. If you’ve found a different edition, you must find some method for getting the homework questions (e.g., the University library).

Other equipment / material requirements

1. Scientific calculator (must have square root and exponent buttons)
2. Computer, printer, internet and library access
3. Scantron (882) forms, for the midterm, final, and in class quizzes.
4. Access to Statistical Package for the Social Sciences (SPSS) software (v. 15.0 or later)
Classroom Protocol

Classes
Classes will comprise lectures, in-class activities, question-and-answer periods, guest presentations, and films. Attendance is expected and is critical for success in this course. If you miss a class, you are responsible for getting the information covered. It is vital that you complete all scheduled readings and assignments before each class. Always bring your text and calculator to class. Do not talk, read, text message, or eat during class. Please arrive to class on time.

Electronics Policy
Do not use cell phones, foreign language dictionaries, laptop computers, headphones, or any other electronic device during Exams. Turn off all pagers, cell phones, headphones, etc. before class. Using cell phones and other communication methods (e.g., text messaging) during class is not allowed. Do not use electronic devices to check email, visit web sites, play games, or send instant messages. Doing so is a distraction to other students and the instructor and will result in expulsion from class.

Dropping and Adding
Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops are available at http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-324.html. Information about late drop is available at http://www.sjsu.edu/sac/advising/latedrops/policy/. Students should be aware of the current deadlines and penalties for adding and dropping classes.

Assignments and Grading Policy

Exams
You will have one Midterm Exam. The midterm will comprise multiple-choice, short answer, and computation questions. Please bring a Scantron form, pencils, and a calculator to each exam. All formulas will be provided to you.

Final Exam
The Final Exam will have a similar format to the midterm, and will be cumulative.

Homework
Homework assignments will consist of problems from the end of each chapter in the textbook. The specific assignments, along with their due dates, will be posted on the Desire2learn course webpage.

The homework assignments are the primary method for you to test your knowledge outside of lecture and prepare for the exams. Homework is not graded directly. Instead, in class quizzes will be given that ask questions directly from the assigned homework problems. This is described below.
SPSS Assignments
You will complete a series of assignments that require the use of SPSS software. You will be able to obtain these assignments and work on them in the Statistics Laboratory in DMH 350. You may work in teams of two students on these assignments, but must turn in individual reports, with answers in your own language. Include typewritten answers to the questions and printouts of your data and SPSS output (printouts from SPSS can be identical if you have worked in a team). Failure to meet these requirements will result in lost points.

Non-Pop Quizzes
Most lectures will include brief quizzes, with questions in multiple choice or short-answer formats. These quizzes will cover assigned homework material from the previous lectures and can also include basic information from the assigned reading of the current lecture. The quizzes may happen at any point during class. There are no make up opportunities for missed quizzes. However, your two lowest scores will be dropped. This means you can miss two quizzes without direct penalty. You must bring a scantron with you to every lecture.

Extra Credit
For those students that regularly attend lecture and take more than the baseline number of non-pop quizzes, any additional quiz score(s) will be added as extra credit at the end of the semester.

Late work
All assignments must be submitted by the scheduled due date. Late SPSS assignments will lose 10% of total points for each class period after this date. Assignments more than three class periods late will not be accepted. PLEASE DO NOT EMAIL LATE ASSIGNMENTS WITHOUT PRIOR PERMISSION.

Make-up Midterm
A make-up midterm may only be given if you contact me well in advance to the midterm date. If you miss the midterm for any reason, your final exam grade will be used for both the final and midterm scores. If your score on the final exam is higher than your midterm score, then your final score will be used in place of your midterm when calculating your course grade.

Assessment of student learning outcomes
The learning objectives will be assessed via homework assignments, exam questions, and SPSS assignments. These assessment items will involve solving verbal and symbolic quantitative problems, including those that involve real-world situations. Students will be required to arrive at conclusions using numerical and graphical data. For example, students may view a scatterplot depicting data for the amount of caffeine consumed (X) and the quality of sleep (Y) and will determine whether a relationship exists between these variables, and, if so, the nature and strength of this relationship (LO 3). In addition, students will compute appropriate statistical measures that describe the relationship (LO 1) and then determine the practical implications of the observed relationship (LO 2, 3).

Grading
Your grade will result from the total number of points that you earn during the semester. Points will be assigned as follows:
### Assignment Percent of Final Grade

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percent of Final Grade</th>
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</thead>
<tbody>
<tr>
<td>Non-Pop Quizzes (Based on Homework and Readings)</td>
<td>15%</td>
</tr>
<tr>
<td>SPSS Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>35%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>35%</td>
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<tr>
<td>TOTAL</td>
<td>100%</td>
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### Grading scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Letter Grade</th>
<th>Percent</th>
<th>Letter Grade</th>
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</thead>
<tbody>
<tr>
<td>≥ 98</td>
<td>A+</td>
<td>73</td>
<td>C (passing)</td>
</tr>
<tr>
<td>93</td>
<td>A</td>
<td>70</td>
<td>C-</td>
</tr>
<tr>
<td>90</td>
<td>A-</td>
<td>68</td>
<td>D+</td>
</tr>
<tr>
<td>88</td>
<td>B+</td>
<td>63</td>
<td>D</td>
</tr>
<tr>
<td>83</td>
<td>B</td>
<td>60</td>
<td>D-</td>
</tr>
<tr>
<td>80</td>
<td>B-</td>
<td>&lt; 60</td>
<td>F</td>
</tr>
<tr>
<td>78</td>
<td>C+</td>
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### University Policies

#### Academic integrity

Students should know that the University’s [Academic Integrity Policy is available at](http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf). 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 website for [Student Conduct and Ethical Development](http://www.sa.sjsu.edu/judicial_affairs/index.html) is available at

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 DRC (Disability Resource Center) 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 Clark Hall and on the 2nd floor of the Student Union. The Statistics Lab contains computers with SPSS (v. 16.0) installed. Computers are also available in the Martin Luther King Library.

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/.

SJSU Writing Center

The SJSU Writing Center (Room 126 in Clark Hall) is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. The Writing Center website is located at http://www.sjsu.edu/writingcenter/about/staff/.

Peer Mentor Center

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/.

Tips to help you succeed in Stat 95

1. Attend all classes and take good notes; Type and compile your notes soon after class
2. Start studying at least 2 weeks before each exam; form a study group with fellow students
3. Read assigned readings before each class; read each chapter at least twice
4. Practice working through the formulas with different data sets
5. Regularly review previous material to prepare for the Final Exam
6. Ask questions in class, in office hours, and on the course web site
7. Check the web site daily and read all postings
8. Complete the practice problems at the end of each chapter
9. Make flashcards for important concepts and terms
10. Visit the LARC if you need tutoring
11. Complete assignments as soon as the relevant information is presented in class
12. Try to apply statistics to your everyday life and interests - in such areas as sports, finance, business, childrearing, medicine, law, and entertainment.
Stat 95 /Elementary Statistics Spring 2012 Course Schedule

<table>
<thead>
<tr>
<th>DATES</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>Jan 31</td>
<td>Introduction to Statistics</td>
<td>Ch. 1</td>
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<tr>
<td>Feb 7</td>
<td>Frequency distributions</td>
<td>Ch. 2</td>
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<tr>
<td>Feb 14</td>
<td>Central tendency &amp; Variability</td>
<td>Ch. 3-4</td>
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<tr>
<td>Feb 21</td>
<td>Standardized (z) scores</td>
<td>Ch. 5</td>
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<tr>
<td>Feb 28</td>
<td>Probability</td>
<td>Ch. 6</td>
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<tr>
<td>Mar 6</td>
<td>No Lecture</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>Mar 13</td>
<td>Probability and samples</td>
<td>Ch. 7</td>
<td>SPSS #1</td>
</tr>
<tr>
<td>Mar 20</td>
<td>Midterm Exam</td>
<td>Ch. 1-7</td>
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<tr>
<td>Mar 27</td>
<td>Spring Break</td>
<td></td>
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<tr>
<td>Apr 3</td>
<td>Hypothesis testing</td>
<td>Ch. 8</td>
<td></td>
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<tr>
<td>Apr 10</td>
<td>The t statistic</td>
<td>Ch. 9</td>
<td></td>
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<tr>
<td>Apr 17</td>
<td>The t test</td>
<td>Ch. 10</td>
<td></td>
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<tr>
<td>Apr 24</td>
<td>Estimation</td>
<td>Ch. 12</td>
<td>SPSS #2</td>
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<tr>
<td>May 1</td>
<td>Analysis of Variance</td>
<td>Ch. 13</td>
<td></td>
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<tr>
<td>May 8</td>
<td>Correlation &amp; regression</td>
<td>Ch. 15</td>
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<tr>
<td>May 15</td>
<td>Review/Catch-up Lecture</td>
<td>Ch. 1-15</td>
<td>SPSS #3</td>
</tr>
<tr>
<td>May 22</td>
<td>Final Exam</td>
<td>Ch. 1-15</td>
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</tbody>
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Note on the schedule
This course will follow this schedule to the extent possible. The timing and specific nature of topics and activities may change. You are responsible for being informed of any changes made to the class syllabus. Such changes will be clearly stated in class and will be posted on the class web site before the changes take effect.

Note on SPSS
You may consult the Statistics Teaching Assistants in the Statistics Laboratory in DMH 350. Additionally, information on using SPSS is available online. Finally, I will offer help on using SPSS and interpreting SPSS results during office hours. You can obtain access to SPSS by: (1) buying the software from the Help Desk in Clark Hall; (2) visiting the Statistics Laboratory in DMH 350 during office hours; or (3) visiting the King Library or Clark Hall, both of which have SPSS installed on some computers.