San Jose State University
STAT 095, Elementary Statistics, Sec. 04, Fall 2014

☐ Check this box after you have taken and passed the Syllabus Quiz.

Instructor: Chad Kempel, M.A.

Student Contact #1 Name:__________________ Cell/Email:__________________
Student Contact #2 Name:__________________ Cell/Email:__________________
Student Contact #3 Name:__________________ Cell/Email:__________________

Office Location: DMH 230

Telephone: 510-470-4022 (I prefer that you email me)

Email: Chad.Kempel@sjsu.edu

Office Hours: Tuesday and Thursday: 1:50 p.m. - 2:50 p.m.

Class Days/Time: Tuesday and Thursday: 10:30 a.m. - 11:45 a.m.

Classroom: DMH 348

Prerequisites: Satisfaction of ELM requirements and 2 years of H. S. Algebra.

GE/SJSU Studies Category: Intended for majors in education, nursing, personnel administration, psychology, social service and sociology, and psychology minors. GE: B4 (Mathematical Concepts) and CAN STAT 2

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

Required Materials

Textbook

Some Purchase and Rental Options:
• Paperback $3.92 (on Amazon.com; Lowest price as of 8/5/2015)
• Kindle Rental $79.99 (Amazon.com)
• Rental $16.29 (Amazon.com)
• eBook $79.99 (6 months; CengageBrain.com)
• eChapters $7.99 /chapter (CengageBrain.com)
Other equipment / material requirements
1. Computer with Microsoft Word and a PDF maker, printer, internet, and library access
2. Scantron (882) forms and #2 pencils
3. Access to Statistical Package for the Social Sciences (SPSS) software (v. 19.0 or later). See the “Student Technology Resources” section below for details.
4. Access to additional FREE statistical software. Details will be provided on Canvas at a future date.
5. Calculator (must have square root and exponent buttons; cell phone calculators will not be allowed during exams)

Course Website
All course material will be distributed via Canvas (https://sjsu.instructure.com). I will also use Canvas to communicate with you so make sure that your Canvas messages are forwarded to your email address if you think you will get your messages quicker that way. You are responsible for checking Canvas daily for announcements.

Online tutorials for how to use Canvas can be found online at www.sjsu.edu/at/ec/canvas/student_resources/index.html. If you have issues with Canvas, including logging in, contact the University Help Desk at http://www.sjsu.edu/helpdesk.

Professional Communication
As a University student, you are encouraged to engage in professional communication with faculty, staff, and your fellow students.

All electronic communication should be done through the Canvas messaging feature. This allows me to keep all of my class messages in one location and each message automatically includes your name and the class you are in.

In addition to the three contacts you made on the first day of class, if you have a question about lecture or textbook material, problems, assignments, or anything else related to the class the question should be asked in the Discussions in Canvas. Be sure to include a detailed title and a clear message when posting in Discussions. If you are able to answer a classmate’s question I encourage you to do so, as explaining information to someone will strengthen your own understanding. If you provide answers to your classmates’ questions often I will take that into consideration if you are 0.50% away from a higher letter grade in the class.

If Canvas is down and you need to send an email to me please follow the basic guidelines listed below. I encourage you to follow these guidelines anytime you are communicating in a professional capacity.

- Include these details in the subject line:
  - [Name of course and section number] Student - [Reason for emailing]
  - Example: Biology 1 Section 3 Student - Scheduling a Meeting

- Address the message to me so that I know it was meant for me.
- If you need a reply, clearly request a reply.
- End your message by including your full name as it appears on the roster.

You may email me at anytime. I will do my best to respond in a timely manner between the hours of 9:00 a.m. and 5:00 p.m. Monday – Friday.

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; that’s 9 hours per week outside of class), 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.

**Grading Policy**

You can view your current grade at any point in the semester on Canvas.

<table>
<thead>
<tr>
<th>Item</th>
<th>How Many?</th>
<th>Total Points</th>
</tr>
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<tbody>
<tr>
<td>Exams</td>
<td>7</td>
<td>700</td>
</tr>
<tr>
<td>Assignments/Activities/Homework</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>Analysis Assignments</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Weekly Quizzes</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>i&gt;Clicker Participation</td>
<td>Daily</td>
<td>30</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>1000</td>
</tr>
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**Grading Distribution**

<table>
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<th>Grade</th>
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<tr>
<td>A+</td>
<td>100 – 97.5</td>
<td>C</td>
<td>77.4 – 72.5</td>
</tr>
<tr>
<td>A</td>
<td>97.4 – 92.5</td>
<td>C-</td>
<td>72.4 – 70.0</td>
</tr>
<tr>
<td>A-</td>
<td>92.4 – 90.0</td>
<td>D+</td>
<td>69.9 – 67.5</td>
</tr>
<tr>
<td>B+</td>
<td>89.9 – 87.5</td>
<td>D</td>
<td>67.4 – 62.5</td>
</tr>
<tr>
<td>B</td>
<td>87.4 – 82.5</td>
<td>D-</td>
<td>62.4 – 60.0</td>
</tr>
<tr>
<td>B-</td>
<td>82.4 – 80.0</td>
<td>F</td>
<td>&lt; 60%</td>
</tr>
<tr>
<td>C+</td>
<td>79.9 – 77.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exams and Assignments**

**Exams**

After every one to three chapters there will be an in-class exam (seven total) that tests your knowledge of the topics covered in those chapters and the material covered in the corresponding lectures. See the course schedule for specific topics and dates of these exams. Exams will consist of multiple choice, true/false, short answer/essay, and computational questions. Make sure to bring your calculator, Scantron (882) form, and #2 pencils to the exams.

No bathroom breaks will be allowed during exams so please take care of business prior to coming to class. If you need special accommodations, please inform me at the beginning of the semester.

You must be in class on time on exam days. Tardiness disrupts those who were on time and have already begun their exam. You will be given 40 minutes to complete each exam. We will then take a 5 minute break and then have a 30 minute lecture. If you need special accommodations for taking exams please contact the Accessible Education Center in the Administration Building (Room 110) and please notify me at the beginning of the semester.

There will not be any make-up exams. Missed exams receive a zero. What if I miss an exam for reasons beyond my control (e.g., car trouble, death in the family, etc.)?

If you need to miss an exam for any reason you will need to take an oral version of the exam during my next available office hour. During the oral exam you will receive half a point for each question you answer correctly and half a point for explaining why the answer is correct.
Challenge Exams
You can challenge one of your exam grades on the day of our final. You challenge your exam grade by retaking a similar exam on the same topics as the initial exam. Your grade on the challenge exam will replace your original grade (BETTER or WORSE). Missed exams cannot be challenged.

Activities/Homework
In-class activities (10 total) will occur without advanced notice. These activities will consist of group or individual problem solving, discussions, brief presentations, or other learning assignments. In-class activities cannot be made-up at a later date; you must be present on the day that the activities take place. Some activities may turn into homework if we run out of time in class.

Analysis Assignments
You are required to write at least 500 words on topics relevant to data analysis. Throughout the semester you will have six assignments in which you will analyze data using SPSS and other statistical software. The count of words from all your assignments combined must add up to at least 500 words (you will likely go well beyond 500 words; e.g., there are 531 words on this page). All of these assignments must be completed in order to receive a passing grade in this class.

Assignments must be submitted on time the day they are due. Late analysis assignments will be marked down 10% for each day they are late. The assignment must be typed and submitted through Canvas (no email submissions) as a Microsoft Word document (i.e., .doc or .docx) along with an Adobe PDF (i.e., .pdf) containing your statistical output (i.e., tables and graphs). Assignments submitted without accompanying statistical output will not receive more than half credit. The details of these assignments will be announced on Canvas at a future date.

If you feel that you could use some help with your writing or if I recommend that you seek help, please take advantage of these free resources here on campus (additional details at end of syllabus):

- Writing Center (Clark Hall, Suite 126; http://www.sjsu.edu/writingcenter/)
- Peer Connections (formerly LARC; Student Services Center 600; http://peerconnections.sjsu.edu/). They provide free statistics tutoring for Stat 95 students.
- Student Technology Training Center (http://www.library.sjsu.edu/sttc). This center provides either one-on-one or small workshops in SPSS and rents laptops to students that are equipped with SPSS.

Weekly Quizzes
There will be a short quiz on Canvas each week on the material covered in class and/or the readings for the previous week. Quizzes will always be due on Mondays before midnight and will not be accepted after this time. Do not wait until the last minute to complete the quizzes because doing so will cause your computer to freeze, your Internet connection to be dropped, and possibly your appendix to rupture. Since “life happens” (e.g., worked late, hospital visit, etc.) I will only grade 14/16 quizzes. Doing all 16 quizzes will earn you 10 points extra credit.

i>Clicker Participation
We will use i>Clicker audience response devices during some of our classes so that I can get instant anonymous feedback from you. i>Clicker points will be awarded based on accuracy of responses and frequency of participation. Since i>Clicker responses will be used to shape the direction of lectures, participation cannot be made-up at a later date. You do not need to purchase an i>Clicker device.
Classroom Protocol

- It is vital that you complete all scheduled readings and assignments before each class.

- Classes will be comprised of lectures, in-class activities, question-and-answer periods, and video clips. Attendance is expected and is critical for success in this course. If you miss a class, you are responsible for getting the information covered from one of your three contact persons listed at the top of your syllabus.

- Research shows that electronic use during class LOWERS students’ grades. Since I want each of you to get an A in the class, you should not have your phones out for any reason during class. If you are expecting an emergency call, please inform me prior to class.
  - If using a laptop, you must sit in the designated laptop section. Having a designated section for laptops minimizes distractions for other students.

- Please arrive to class on time and stay the entire time.

Student Technology Resources

These are your options for accessing SPSS:

- Purchase a copy of SPSS for $15 at the University Help Desk on the first floor of Clark Hall. Be sure to get the newest SPSS license code for the operating system you own (Mac or Windows).

- Use the computer labs in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college.

- Use the computers in the Statistics Lab located in DMH 350. These computers are equipped with SPSS and Graduate Student Teaching Assistants can provide you with assistance on how to use the program. They will not do your assignments for you. I will post the Stat Lab schedule in the Canvas Files as soon as it’s available.

- Visit the Student Technology Training Center (http://www.library.sjsu.edu/sttc). This center provides either one-on-one or small workshops in SPSS and rents laptops to students that are equipped with SPSS.

Course Goals and Learning Objectives

GE/SJSU Studies Learning Outcomes (GELO)

Upon successful completion of this program, students will be able to:

GELO 1 - Use mathematical methods to solve quantitative problems, including those presented in verbal form.
  - Assessed using quizzes, exams, and one or more essay assignments where statistical software (e.g., SPSS) is used to analyze data, among other assignments/activities (e.g., calculating mean and standard deviation for a dataset created in class and then comparing one class to another).

GELO 2 - Demonstrate the ability to use mathematics to solve real life problems.
  - Assessed using quizzes, exams, and one or more essay assignments where statistical software (e.g., SPSS) is used to analyze data, among other assignments/activities (e.g., calculating probabilities for real-world situations).
GELO 3 - Arrive at conclusions based on numerical and graphical data.  
- Assessed using quizzes, exams, and one or more essay assignments where statistical software (e.g., SPSS) is used to analyze data, among other assignments/activities (e.g., Students will use SPSS to analyze data and write a short essay).

**Course Learning Outcomes (CLO)**
Upon successful completion of this course, students will be able to:

CLO 1 - The University requires students to write a minimum of 500 words in a manner appropriate to quantitative analysis. The writing requirement will be met via essay assignments where statistical software (e.g., SPSS) is used to analyze data (details will be posted on Canvas). **These assignments must be completed in order to receive a passing grade in this class.** Writing will be assessed for grammar, clarity, conciseness, and coherence.

CLO 2 - Stat 95 will incorporate issues of diversity (e.g., gender, ethnicity, LGBT) in many ways (e.g., in lectures, videos, assignments)

CLO 3 - In terms of Mathematical Concepts (Area B-4), Stat 95 will focus on:

a. Basic mathematical techniques for solving quantitative problems and elementary numerical calculation.  
b. Organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, percentages, measures of central tendency, and spread).  
c. Applications of mathematics to everyday life.  
d. Applications of mathematical concepts to statistical inference.  

- Area B-4 objectives will be taught via lectures, using videos, in-class group activities and will subsequently be assessed using quizzes, exams, and essay assignments where statistical software (e.g., SPSS) is used to analyze data, among other assignments/activities (see GELO section for examples).

**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.

**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.
University Policies

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 year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. 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/.

Consent for Recording of Class and Public Sharing of Instructor Material
University Policy S12-7, http://www.sjsu.edu/ senate/docs/S12-7.pdf, requires students to obtain instructor’s permission to record the course.

- “Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor’s permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.”
  - In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.

- “Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.”

Academic integrity
Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy at http://www.sjsu.edu/ senate/docs/S04-12.pdf 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 Integrity 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 at http://www.sjsu.edu/president/docs/directives/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 your disability.
In 2013, the Disability Resource Center changed its name to be known as the Accessible Education Center, to incorporate a philosophy of accessible education for students with disabilities. The new name change reflects the broad scope of attention and support to SJSU students with disabilities and the University's continued advocacy and commitment to increasing accessibility and inclusivity on campus.

**SJSU Peer Connections**

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics. A computer lab and study space are also available for student use in Room 600 of Student Services Center (SSC).

Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.

**SJSU Writing Center**

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the Writing Center website at http://www.sjsu.edu/writingcenter. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook. (Note: You need to have a QR Reader to scan this code.)

**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.
# Elementary Statistics (STAT 095, Sec. 04), Fall 2014

## Tentative Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, Readings, Assignments, Deadlines</th>
<th>Assign. Due</th>
</tr>
</thead>
</table>
| 1    | 8/26 – 8/28 | • Introduction to Stat 095 & Survey  
• Chapter 1 – Introduction to Statistics  
• Chapter 2 – Frequency Distributions                               | 8/28 Quiz 1 - Syllabus |
| 2    | 9/2 – 9/4   | • Chapter 2 cont.  
• Exam 1 (Chapters 1 & 2) - Thursday  
• Chapter 3 – Central Tendency                                     | 9/1 Quiz 2           |
| 3    | 9/9 – 9/11  | • Chapter 3 – cont.  
• Chapter 4 – Variability                                            | 9/8 Quiz 3 & Analysis 1 |
| 4    | 9/16 – 9/18 | • Chapter 4 cont.  
• Exam 2 (Chapters 3 & 4) - Thursday  
• Chapter 5 – z-Scores                                               | 9/15 Quiz 4          |
| 5    | 9/23 – 9/25 | • Chapter 5 cont.  
• Chapter 6 – Probability                                              | 9/29 Quiz 6          |
| 6    | 9/30 – 10/2 | • Chapters 6 cont.  
• Exam 3 (Chapters 5 & 6) - Thursday  
• Chapter 7 – Probability and Samples                                 |                     |
| 7    | 10/7 – 10/9 | • Chapter 7 cont.  
• Chapter 8 – Introduction to Hypothesis Testing                      | 10/6 Quiz 7 & Analysis 3 |
| 8    | 10/14 – 10/16| • Chapter 8 cont.  
• Exam 4 (Chapters 7 & 8) - Thursday  
• Chapter 9 – Introduction to the \( t \) Statistic                | 10/13 Quiz 8         |
| 9    | 10/21 – 10/23| • Chapter 10 – The \( t \) Test for Two Independent Samples  
• Chapter 11 – The \( t \) Test for Two Related Samples              | 10/20 Quiz 9         |
| 10   | 10/28 – 10/30| • Chapter 10 & 11 cont.  
• Exam 5 (Chapters 9, 10, & 11) - Thursday  
• Chapter 13 – Introduction to Analysis of Variance                   | 10/27 Quiz 10        |
| 11   | 11/4 – 11/6 | • Chapter 13 cont.                                                               | 11/3 Quiz 11 & Analysis 4 |
| 12   | 11/11 – 11/13| --------------- NO CLASS – VETERAN’s DAY 11/11 ---------------  
• Chapter 13 cont.                                                   | 11/10 Quiz 12        |
| 13   | 11/18 – 11/20| • Exam 6 (Chapter 13) – Tuesday (Not Thursday)  
• Chapter 15 – Correlation and Regression                             | 11/17 Quiz 13 & Analysis 5 |
| 14   | 11/25 – 11/27| • Chapter 15 cont.  
-------------- NO CLASS – THANKSGIVING 11/27 --------------            | 11/24 Quiz 14        |
| 15   | 12/2 – 12/4 | • Chapter 15 cont.  
• Chapter 16 – The Chi-Square Statistic                                 | 12/1 Quiz 15         |
| 16   | 12/9        | • Chapter 16 cont.                                                              | 12/8 Quiz 16 & Chlg. Reqs. |
| 17   | 12/16       | • Monday from 9:45 a.m. – 12:00 p.m. in DMH 348  
• Exam 7 (Chapters 15 & 16)  
• Mandatory 10 Question Departmental Exam  
• Optional Challenge Exam                                              | Analysis 6           |

*Schedule is subject to change with fair notice. The schedule **WILL** be altered as the semester progresses.  
**Be sure to check Canvas regularly for announcements about out-of-class work and your analysis assignments so that you can prepare accordingly.*