San José State University
Department of Psychology
Elementary Statistics (Stat 095)
Spring 2015

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>Sean Laraway, PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Location:</td>
<td>DMH Rm. 311</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(408) 924 – 5679</td>
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<tr>
<td></td>
<td>(Do not call; I don’t answer voicemail)</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:sean.laraway@sjsu.edu">sean.laraway@sjsu.edu</a></td>
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<tr>
<td></td>
<td>(Please use Canvas email to contact me, except in case of emergency)</td>
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<tr>
<td>Office Hours:</td>
<td>Online (“Live” via Piazza) on Tuesdays, 8-9 p.m. (PST)</td>
</tr>
<tr>
<td>Class Days/Time:</td>
<td>Online (We will not meet in person)</td>
</tr>
<tr>
<td>Statistics Coaches:</td>
<td>Jake Volz (<a href="mailto:volz.jacob@gmail.com">volz.jacob@gmail.com</a>)</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>For current students of the California State University (CSU) system, passage of the Entry Level Math (ELM) Exam is a prerequisite to enroll in this course. Failure to satisfy this prerequisite will result in the retroactive assignment of a “U” grade in this course. Information on the ELM can be obtained on the web at <a href="http://testing.sjsu.edu/eptelm/">http://testing.sjsu.edu/eptelm/</a>. Students not enrolled in the CSU system are exempt from this prerequisite.</td>
</tr>
<tr>
<td>GE/SJSU Studies Category:</td>
<td>Intended for majors in education, nursing, personnel administration, psychology, social service and sociology, and psychology minors. GE: B4 (Mathematical Concepts) and CAN STAT 2.</td>
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</table>

Course Format

This course is completely online. We will have no in-person meetings. All exams will be scheduled online (see later sections). You must have regular and reliable access to a computer with high-speed Internet access. Your computer must be equipped with an updated web browser. For more information about required technology, see the sections below. It is the student’s responsibility to comply with the technology requirements; failure/inability to do so will not be considered a valid excuse for missing assignment due dates. Be sure to complete assignments before the scheduled due dates to ensure timely submissions and avoid technological issues. All materials and assignments will be available on the course Canvas website.
Course Description

We live in a time of unprecedented access to information...data. Whether researching the best school, job, or relationship, the Internet has thrown open the doors to vast pools of data. Statistics are simply objective and systematic methods for describing and interpreting information so that you may make the most informed decisions about life.

Catalog 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.

Course Web Page

Canvas: Canvas will be the learning management system for this class.
- We will use Canvas for...
  - Delivery of course content and assignments (videos, handouts, notes)
    - Note that the person delivering the videos is NOT your instructor. She was a Udacity course developer who recorded our material.
  - All communication (Piazza public forum or private email)
  - Posting grades
  - Submission of written work
  - Practice and graded quizzes
  - Exams

Elementary Statistics, Stat 95, Spring 2015
• How to get connected
  o You will need your 9-digit SJSU ID to login. You should have received a message from the Registrar’s Office providing your SJSU ID.
  o If you've never logged into Canvas, then you'll first need to activate your SJSUOne account. Here are the instructions for that:
    ▪ Have your SJSU ID handy
    ▪ Visit the following page to activate your account. https://sjsuone.sjsu.edu/LDAPAccount/Activate/Activate.aspx
  o Once activated, you can login to Canvas from here: https://sjsu.instructure.com/login

• Answers about Canvas can be found at http://guides.instructure.com/

• This term we will use Piazza (within Canvas) for class discussion. Piazza is highly catered to getting you help fast and efficiently from classmates, the Stats Coaches, and me. Rather than emailing questions to us, please post your questions on Piazza. We will not respond to questions about the course content via email. Matters of a personal nature (e.g., grades) should be emailed to Dr. Laraway. If you have any problems or feedback for the developers, email team@piazza.com. To use Piazza, make sure your web browser accepts pop-ups and third-party cookies.

Getting Help
• There are three people who are available to answer your questions. The first (and most consistently available) is your instructor, Dr. Laraway.

• In addition to Dr. Laraway, you have a graduate-level Statistics Coach who is ready and willing to answer your questions.
o Jake Volz is a student in the SJSU MS Program in Human Factors/Ergonomics. Along with Dr. Laraway, Jake will be working hard to make this class as enjoyable as possible! Don’t hesitate to ask Jake questions, particularly about the “stats bucks” described later. He’s the stats bucks guru!

• As in any course, we expect that you will have questions about the material and assignments. We strongly encourage (and welcome) questions about anything to do with this course, including concepts, assignments, Canvas, and so on. Please don’t hesitate to ask questions! We love answering questions. That’s why we’re here. In fact, that’s the only reason we’re here!

• We are also interested in your opinions about various aspects of the course, including the Canvas site set up, the videos, assignment structure, usefulness of the instructions, etc. Please don’t hesitate to send us your constructive feedback on what works for you and what doesn’t. Of course, we can’t change the topics covered, but we could change how the web site is organized, etc.

• Some questions and answers related to the video Lessons can be found on the Udacity forums (Udacity ST095 Forum Questions @ http://forums.udacity.com/tags/st095/ - st095). Please note that you must create a free Udacity user account (http://www.udacity.com) and add these courses to view the questions and participate in the Forum:

• Intro to Descriptive Statistics: https://www.udacity.com/course/ud827

• Intro to Inferential Statistics: https://www.udacity.com/course/ud201

**Course Goals and Learning Objectives**

1. Stat 95 requires students to write a minimum of 500 words in a manner appropriate to quantitative analysis (statistics). The writing requirement will be met via written projects (described below). Writing will be assessed for grammar, clarity, conciseness, and coherence.

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

3. In terms of Mathematical Concepts (Area B-4), 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 and Course Learning Outcomes (LO)
Upon successful completion of this course, students will be able:

- **CLO1** – To use statistical methods to solve quantitative problems, including those presented in verbal form
- **CLO2** – To demonstrate the ability to use mathematics and statistics to solve real-life problems
- **CL03** – To arrive at conclusions based on numerical and graphical data.

SJSU Psychology 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.

Assessment of student learning objectives

- The learning objectives will be assessed via in-lesson short quizzes, graded online quizzes, written assignments, and exam questions.

- 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 sleep (X) and visual memory (Y), and will determine whether a relationship exists between these variables, 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).
Required Texts, Readings, and/or Materials

There are no required textbooks for this class. Some students, however, may wish to use various free online resources to help supplement the course content. Here are a few suggestions:

- http://cnx.org/content/col10522/latest/
- www.openintro.org/stat/textbook.php
- http://www.statsoft.com/textbook/
- http://vassarstats.net/textbook/

What you WILL need:

1. A reliable computer and Internet access.
   - Having access to the Internet is your responsibility, so have backup plans in case you have problems with your primary computer. We will not accept excuses about technology problems as valid, unless the entire university network or the Learning Management System is offline.
   - To take exams, you’ll need access to a computer with a webcam, microphone, speakers, and two forms of personal identification (e.g., drivers license, student ID card).

2. Calculator
   - The calculator should be handheld and must have the square root and exponent buttons. A graphing calculator is not necessary (but you may use one if you like).
   - For exams, you will need to use a handheld calculator. You will not be allowed to use your cell phone or computer apps.

3. Spreadsheet app such as Excel, Numbers, or Google Docs.

4. Notebook paper, pencils (don’t do stat work with pens!), and erasers.

Definition of a Credit Hour

- 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 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica.

- Other course structures will have equivalent workload expectations as described in the syllabus.

- As an example, the expectation of work for this 16-week, 3-credit course is a minimum of 9 hours of student work related to this class each week.

- The more time you spend, the better your chances of earning a higher grade.
Examples of student work include watching the video lessons, completing problem sets, studying course concepts, reviewing assessments and study guides, working on the writing projects, reading statistics-related material, engaging in meaningful participation in online discussions, and taking exams.

“Classroom” Protocol

- For “lectures,” we will use videos produced and hosted by Udacity.com, a Mountain View, CA start-up company (http://www.udacity.com). These videos were written by Dr. Sean Laraway (your instructor) and Dr. Ron Rogers (Professor and Chair of the SJSU Department of Psychology) and delivered by Katie Kormanik, a Udacity employee. The videos are embedded in Canvas (in Modules), so you only need one login to view them! Of course, you are free to view them on the Udacity site, if you choose. Some students prefer this method as it provides immediate feedback on your answers.

The material is broken into separate Lessons. Each Lesson covers material on a single topic and is equivalent to a chapter in a regular textbook.

- These Lessons involve many short videos followed by interactive activities.

- I strongly recommend that you spend some time (~1-2 hrs) each day working through the lessons, taking notes, reviewing those notes, and answering the problem set questions.
• The worst thing you could do is to wait to complete the entire lesson right before something is due. Don’t try to “cram” in this class. Distributed practice (spreading your work across multiple days) is a more effective form of work compared to massed practice (doing all of the work at once).

• To some extent this course is self-paced and will require you to time manage and self-motivate appropriately. For example, don’t wait until the last minute to take the quizzes!

• As in a normal classroom, you should be actively engaged in taking your own notes (preferably by hand) while watching the lessons. Research has shown that taking notes by hand compared to typing them improves memory for the material. Although it is true that the videos will remain available for you to review as many times as you require, active note taking will help you internalize the material better. Also, you’ll be able to use these notes to complete the problems sets and quizzes and to study for the exams. This will be much more convenient than trying to go back and re-watch the many videos.

• Write down any questions you have about the course material and post those questions to Piazza. Please refer to the Lesson name and video number when asking questions.

• For the short “quizzes” within the videos, you should write down all questions in your notes and try to answer them before watching the next video, which will give the answer. Use the answer video to check your current understanding of the course material. I will also provide the answers. If you don’t understand the question and/or the answer, re-watch the previous videos. If you still don’t understand, post your question to the Piazza discussion board for answers from your peers, Instructor, and Statistics Coaches.

• The course material is divided into “Modules” that group related material together for ease of use.

• All of the material in this class is cumulative (later assignments and concepts build on earlier ones). Therefore, it is crucial that you complete all assignments and review all concepts. Your later success depends heavily on your earlier work.
Honor Code
(Reference: Academic Integrity Policy at: http://www.sjsu.edu/studentconduct/Policies/)

In order to ensure fairness and have a single standard of representing knowledge acquired, all students participating in online SJSU courses must agree to abide by the following code of conduct.

1. My work will be my own in this online course.
2. I will not give any answers for individually graded homework, quizzes or exams to anyone else.
3. I will not engage in any other activities that will misrepresent my own work or improve my results falsely. I will not engage in any activities that will misrepresent others' work.
4. I will not download, save, or otherwise retain materials from the course for anything but personal use.
5. I will provide accurate information on all research questionnaires.

“Class” Environment

• In an effort to create an environment conducive to sharing one’s thoughts, we require the following etiquette when engaging in online discussions on the Piazza Discussion page:
  o Be polite and respectful to the other people in the class
  o Do not use profanity or biased language in posts or emails

• I expect you to respect the rights and opinions of your peers and Instructor. The open exchange of ideas is the cornerstone of higher education and a free society, but we must always remain respectful of others, even if we disagree strongly with them. Disagreement is acceptable, but discourteousness is not.

• Behavior that creates a threatening or harassing environment will not be tolerated. Severe and pervasive disruptions of course activities are a violation of the Student Code of Conduct will be reported to the Office of Student Conduct and Ethical Development. In short, let’s be cool to one another!
  http://www.sjsu.edu/getinvolved/docs/Student%20Conduct%20Code.pdf

Recording of Class Materials

• Common courtesy and professional behavior dictates that you notify someone when you are recording him/her.

• You may not make audio or video recordings in this class. By enrolling in this course you have not been given any rights to reproduce or distribute the material.
• Course material (e.g., lecture notes) developed by the instructor is the intellectual property of the instructor. The videos and Problem Sets are the joint intellectual property of Dr. Sean Laraway, Dr. Ronald Rogers, and Udacity, Inc.

• You may not publicly share or upload instructor-generated material for this course such as exam questions, lecture notes, or homework solutions without my consent or except in ways described in this syllabus.

Assignments and Grading Policy

Your grade will be determined by your performance in five categories of the coursework and examination:

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Items</th>
<th>Points</th>
<th>% of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>4 x 175 pts</td>
<td>700</td>
<td>70.0%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15 x 10 pts</td>
<td>150</td>
<td>15.0%</td>
</tr>
<tr>
<td>Self-Management Reports</td>
<td>3 x 20 pts</td>
<td>60</td>
<td>6.0%</td>
</tr>
<tr>
<td>Final SMP Report</td>
<td>1 x 40 pts</td>
<td>40</td>
<td>4.0%</td>
</tr>
<tr>
<td>Engagement Week</td>
<td>5 x 4 pts</td>
<td>20</td>
<td>2.0%</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>15 x 2 pt</td>
<td>30</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1000</td>
<td>100%</td>
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Table 2. Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A+</td>
<td>100-97%</td>
</tr>
<tr>
<td>A</td>
<td>96-92%</td>
</tr>
<tr>
<td>A-</td>
<td>91-90%</td>
</tr>
<tr>
<td>B+</td>
<td>89-87%</td>
</tr>
<tr>
<td>B</td>
<td>86-82%</td>
</tr>
<tr>
<td>B-</td>
<td>81-80%</td>
</tr>
<tr>
<td>C+</td>
<td>79-77%</td>
</tr>
<tr>
<td>C</td>
<td>76-72%</td>
</tr>
<tr>
<td>C-</td>
<td>71-70%</td>
</tr>
<tr>
<td>D+</td>
<td>69-67%</td>
</tr>
<tr>
<td>D</td>
<td>66-62%</td>
</tr>
<tr>
<td>D-</td>
<td>61-60%</td>
</tr>
<tr>
<td>F</td>
<td>59-0%</td>
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</tbody>
</table>

A letter grade will be assigned based on a standard distribution of points. Your final grade will be calculated by summing your scores on the above criteria and a letter grade will be assigned based on the above grading distribution.

Engagement Week

Just as the name implies, Engagement Week is your opportunity to make sure you’re ready for online education, and if so, that you are also ready to meet the challenges, responsibilities, and expectations of this class in particular. The week will involve six activities; each designed to get you ready to succeed in our class and help us improve the class. More information will be provided on our Canvas site. **Please note that you must complete all five Engagement Week activities by the posted due date in order to remain in the class. Failure to submit these assignments will be grounds for being dropped from the class, unless other arrangements are made with the instructor prior to the due date. The extra credit surveys do not count toward this requirement.**
1. **Readiness for Online Learning Questionnaire** – Your answers to this questionnaire will help you determine what you need to do to succeed at online learning. You should take a screenshot of the results of this questionnaire to submit for credit.

2. **Reflecting on your preparedness** – This exercise will involve you preparing a short (1-2 pages) self-reflection paper based on your results of the Readiness for Online Learning Questionnaire. You will be reflecting on two general questions: “Are you currently ready for online education?” and “How will you prepare yourself to succeed in this online class?” Specifically, you will respond to the analysis and advice given by the Readiness for Online Learning Questionnaire. Details and instructions on this paper can be found in the Engagement Week Module in Canvas.

3. **Syllabus quiz** – This quiz will assess your understanding of the class syllabus, including class procedures, assignments, and due dates. You may take the quiz as many times as you like until you earn 100%. You may use the syllabus to answer the questions, but you may not get the information from another student. You must earn 100% on this quiz to continue in the class.

4. **Introduction to Canvas** – Getting logged into and familiar with Canvas is key to your success. This activity will require you to activate your Canvas account; upload a screenshot of the Readiness for Online Learning Questionnaire results page and the Reflecting on your preparedness paper; and take the Syllabus quiz in Canvas.

5. **Your personalized 16-week schedule** – If you’ve completed the previous three tasks and you’re confident that you’re ready for this class, then it’s time to get organized. This last activity guides you in the preparation of your individualized class schedule. Again, instructions can be found on the Engagement Week Module in Canvas.

6. **Pre-class and post-class surveys (EXTRA CREDIT!!!!)** – I have some pre-class surveys that will help me learn more about you as a student so I can try to tailor the class to your background, experience, etc. and improve future classes. Please take these surveys as soon as possible (by the end of the first week). At the end of the semester, I will ask you to take two post-class surveys to let me know how we did as a team, how you liked the class, and how I can make future classes better. If you complete all of the surveys on time and provide the most accurate answers you can, I’ll give you extra credit worth three whole quizzes (3% of your final grade) for completing all surveys! That’s enough to bump your grade from a C+ to a B! If you choose not to complete these questionnaires, I will provide alternative activities that involve answering extra statistics practice questions. Please let me know via Canvas email if you would rather complete the alternative activities for extra credit.
Self-Management Project
In addition to teaching you statistics, I am committed to helping you developing self-monitoring and self-management skills, which are crucial for success in both in-person and online classes. To that end, you will complete a project that will serve these specific functions:

1. Have you **set goals** for the time spent on Stat 95-related activities (e.g., watching videos, studying, taking quizzes, asking questions, answering questions).

2. Have you **collect data** on time spent on this class and your performance and report relevant statistics for these variables.

3. Have you **arrange incentives and deadlines** for meeting goals for time spent on the class and class performance.

4. Have you **use spreadsheet software** to track, analyze, and graph your data.

5. Have you **communicate** statistical findings and interpretations of these findings, as well as the environmental influences on your academic behavior (e.g., incentives, extraneous variables).

6. Have you **reflect** on your performance, your incentive system, and the influence of environmental variables on your class performance.

7. Allow you to **demonstrate** your proficiency in the use of spreadsheet software and written communication with respect to data analysis.

8. **Fulfill** the GE requirement of writing a minimum of 500 words in a manner appropriate to quantitative analysis.

Project Details

- You will submit one Proposal and three Reports for this project. The proposal will specify your goals, measurement system, incentives, etc. You should base your proposal on the “Procrastination” materials by Malott and Harrison and the proposal guidelines (provided in Canvas).

- Details of this semester-long research activity will be provided in Canvas. Please note this project requires you to monitor the time spent on class activities each day. Grading is not based on how much time you spend, but on the quality of your writing and reporting of your data collection, graphs, and tables included in your reports. A spreadsheet will be provided that automatically creates graphs that students will include in their submissions. This project fulfills the GE 500-word writing requirement.

- In Reports 1-2 you will present data on how well your incentive system has worked in supporting your goals, using your collected data and course grades as evidence, and how you will modify it (if necessary) to improve your performance for the next Report. Each Report will provide data that will
show your progress across the semester and your self-reflection on your performance and the effectiveness of your incentive/study system up to that point.

• The Final Report that will describe your project across the entire semester and will include a final summary and overall evaluation.

• Each part should be about 150 words (at least 1 page each) in length (typed, double-spaced, 12-point font, 1” margins) and will include at least two graphs and a table (software generated). Correct grammar, punctuation, and statistical style (as described in the Publication Manual of the American Psychological Association, 6th ed.) are expected and will represent a portion of your grade on the assignment. For more information on APA style, see the Purdue University Online Writing Lab (https://owl.english.purdue.edu/owl/resource/560/22/).

• You will submit the writing assignments via Canvas online submission process. All papers will be subject to plagiarism evaluation. More specific details on the self-management project reports will be provided in Canvas. The projects must be submitted in MS Word (.doc or .docx) or PDF format to earn credit. Late reports will automatically lose 50% of the points for that assignment, unless you make other arrangements with me.

Quizzes

• Each quiz has between 5-10 questions and is worth 10 points. Quizzes will be assigned in Canvas. You may use any support materials (textbook, videos, notes, calculator, spreadsheet apps) when taking your quiz.

• You may not communicate with anyone except your Instructor during a quiz. For example, you may refer to the web page of a free stats textbook during a quiz, but you may not send instant messages to someone while you take a quiz. Getting help from someone else and/or sharing answers with classmates will be considered academic dishonesty and will subject you to the sanctions described in the section below titled “Academic Integrity.”

• You may take each quiz twice. You will earn the higher of the two scores. You will have 20 minutes for each attempt. Each quiz is due by the date posted in Canvas, but you may complete each quiz earlier than the listed date, as long as you have read/viewed the required material before that quiz. It is important that you take each quiz earlier than the due date/time, even if you don’t anticipate getting sick, having an emergency, having computer issues, etc.

• Missed quizzes cannot be made up for credit, unless you use your stats bucks to purchase additional attempts.
Problem Sets

- Each Lesson (“chapter”) has a Problem Set associated with it. At the end of each lesson, you should complete the Problem Set to test your knowledge of the material and practice for the exams.

- These Problem Sets are meant to help you self-assess your knowledge of the concepts covered in each Lesson. All Problem Sets will be multiple-choice or short answer, and will be based on material in the previous Lesson.

- You will be allowed to use notes and other resources (e.g., one of the online textbooks we suggested) for the Problem Sets, but you should try to answer the questions yourself before seeking help.

- Problem Sets are graded on a Credit/No Credit basis. If you answer all questions in a Problem Set, you will receive full credit, no matter how well you did on the questions. If you do not answer all of the questions, you will not receive credit for that Problem Set. Therefore, it is important for you to answer all of the questions, even if you’re not sure about the answer.

- You may answer the Problem Set questions as many times as you like.

- I strongly encourage you to post your questions about Problem Sets on Piazza. If you know the answer to a question posted by one of your peers, you should answer the question as soon as you can, as this is good practice. Everyone should provide “good” question or answer evaluations in Piazza when appropriate. It’s good to reward each other for helping out!

“Stats Bucks:” A way to increase the flexibility of this course

- You will have the opportunity to earn “Stats Bucks” ($B) for the voluntary completion of additional online quiz assignments. These quizzes will cover the respective course materials every week. The quizzes have the chance to pay out varying amounts of $B, depending on how many questions you answer correctly. The quantity of stats bucks per payout, number of possible payouts, and order of payout amounts will vary randomly.

- Each quiz will be closed at the end of its respective week, at which time the point value will be converted to $B and announced in Piazza. The conversion will be made by multiplying the correct number of items by a randomly generated value from 1 to 10. So, you can earn a maximum number of $B from 10 to 100 on each quiz, depending on the random multiplier for that quiz. The more items you get correct, the more stats bucks you will earn!

- You cannot lose $B that you have earned unless they are exchanged or have expired. Expiration dates will be posted in Piazza. You cannot use $B for assignments that are past the due date.
• You will be able to track your $B by viewing your “Stats Bucks Wallet” located in the online grade book on Canvas. This will be a separate assignment from the $B quizzes category. This value will indicate the running balance of stats bucks acquired minus those spent. The $B wallet will reflect the balance of acquired minus spent stats bucks.

• You can spend your $B in the Stats Bucks Store. We will choose which items to include in the stats bucks store following the results of the online poll given in the first week of the semester. We will also choose the cost of each item based upon the potential opportunity for students. The available items and their respective costs will be displayed in the Stats Bucks Store in a pinned Piazza thread. Students will be able to redeem stats bucks by sending an email request with the desired item(s) in the body of the email to Dr. Laraway and Jake Volz.

• You are not required to earn $B and avoiding the Stats Bucks quizzes will not negatively affect your grade. However, earning $B could potentially improve your grade by giving you extra time on assignments, extra chances to take quizzes, giving you more practice with the material, etc.

**Exams**

• You will have four exams in this class, all of which will be proctored by the ProctorU service (http://www.proctoru.com/).

• Exams will consist of ~30 multiple choice and computational questions and are worth 175 points each.

• The exams are meant to assess your knowledge of the statistical concepts and calculations we cover in class.

• Each Exam will be available online during a specific window of time (6 a.m. to 10 p.m.) on the dates scheduled below using Canvas. Each exam is 75 minutes in duration.

• You may not pause the exam once you begin, so be prepared to complete each exam in a single sitting at the schedule time.

• If you cannot take a scheduled exam due to an emergency, you must notify me before the end of the exam period (i.e., by 10 p.m. on the exam day). In addition, you must provide written documentation for the reason you could not take the exam. At my discretion, I may allow you to make up the exam, but this is not guaranteed.

• Note that “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 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.
Proctoring for Exams – ProctorU

• ProctorU will be used for all four exams.

• ProctorU is a service in which students call to schedule an exam and that ensures that students enrolled in the class actually take the exams.

• ProctorU will monitor all student behavior and testing environments via webcam and microphone during the scheduled exam period.

• Please note that you will be watched during every exam to ensure that you are engaging in appropriate test-taking behavior and not engaging in academic dishonesty. Such monitoring is necessary to maintain the integrity of the course.

• Appointments need to be scheduled at least 72 hours before the 6 a.m. start time for the exam, otherwise there is an additional service charge) that is proctored.

Students must have access to the following materials to participate in this course

1. A reliable computer running Windows XP (or higher) or Mac OS X 10 (or higher).

2. A web cam with 640x480 video pixel resolution or higher.

3. Headphones or working speakers connected to the computer.

4. A working microphone connected to the computer. We recommend a web cam that has a built in microphone.

5. A web browser with Adobe Flash Player installed. We recommend Flash Player 10.

6. A reliable, high-speed Internet connection.

7. The ability to allow video and screen-sharing connections to the computer used to take an exam

8. Two forms of official photo identification (e.g., drivers license, student ID card, passport)

9. Test-takers can test their computer and webcam at www.ProctorU.com/helpdesk
Instructions for registering for your exam

1. Go to the ProctorU website and click “Sign Up.” Be sure “San Jose State University” is your institution.

2. “Log in” with the username and password you used to register.

3. Fill out your profile. Be sure to select the proper time zone so that your appointment time will be accurate. Click “Update” when you’re done.

4. Click the “New Exam” tab and select Stat95 - Elementary Statistics

5. Click on the highlighted exam date on the calendar.

6. You should now be able to select the time. You may begin the exam any time between 6:00 am and 10:00 pm. Allow yourself an hour for the exam and an additional 30 minutes to log in, have your identity verified by the proctor, and read the instructions before beginning the exam. The timer will not start until you've finished all those.

7. After choosing the time you'll take the exam, click “Add reservation.” You don't need to add any comments.

8. You will then see your confirmed reservation. You will have the options to review, edit, or cancel this reservation, if needed. You will also see an inactivated blue button with a countdown timer to your exam. The button will become active when it is time to take your exam during your reservation.

9. The computer you use to take the exam must have a webcam, microphone, and speakers. Test your computer to make sure this equipment functions properly.

Pre-Proctored Exam Checklist

1. Make sure your webcam, microphone and speakers are installed and working correctly. If this is your first exam with ProctorU, please visit www.proctoru.com/testitout to check your equipment before logging in.

2. Be sure to close out any other web cam software before you visit the page. Be sure you are in a well-lit, quiet, and private room. The lighting of your room must be daylight quality and overhead lighting is preferred. If overhead lighting is not possible, please make sure that your light source is not directly behind you because it will make it difficult for your proctor to see you.

3. Please have your photo IDs ready. If your webcam is built into your laptop or desktop (cannot remove or detach), you will also need a reflective surface such as a Smartphone, DVD/CD, hand mirror or compact. This is needed so your proctor can verify that the monitor surface is clear of any materials.
On Exam Day

1. At the time of your appointment, visit http://proctoru.com/portal/sjsu and login using the username and password you created. If you’re early, you will see a countdown to the exact time of your appointment. If the countdown or button does not appear, try refreshing the page. After the countdown expires, click "Connect to your Proctor Now."

2. Click the button under Step 1 that says, "Click Me!"

3. If you have trouble with Step 1, go to Step 2 and click "Help Me."

4. Go to our course Canvas page. The proctor will enter a password to give you access to the exam. After you click “Start” the exam will begin.

5. If you have any trouble with any of the above steps, please call 925-273-7588.

Exam Protocol: You must follow these guidelines during the exam!

1. No one else should be present in the room when you take the exam.

2. You are not allowed to communicate with anyone during your exam (speaking, phone, email, text, etc.)

3. You must keep your eyes on the screen and your immediate workspace (e.g., scratch paper) at all times.

4. You are not allowed support materials (notes, text, etc.) unless indicated by your instructor, who will inform ProctorU what materials are allowed.

5. You must log off from Canvas before disconnecting from ProctorU.

6. Failure to comply with the above standards will be considered a form of academic dishonesty and will result in the punitive actions described in the section on Academic Integrity.

About Diversity

Consistent with the mission of San José State University and the California State University, I welcome persons of differing backgrounds and experiences including, but not limited to, age, disability and health status, ethnicity and race, family structure, geographic region, language, religious/spiritual and secular beliefs, resident status, sex, sexual orientation and gender identity/expression, and socioeconomic status. It is my goal to foster an environment in which diversity is recognized and embraced and every person is treated with dignity, respect, and justice. I hope that your academic experience in this course and at San José State University will provide the opportunity to gain knowledge and experiences necessary to thrive in a diverse, global environment.
Accommodation to Students' Religious Holidays

San José State University 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. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the date that he/she will be absent. It is the responsibility of the instructor to make every reasonable effort to honor the student request without penalty, and of the student to make up the work missed. See University Policy S14-7 at http://www.sjsu.edu/senate/docs/S14-7.pdf.

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 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/.

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 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 their 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 is a campus-wide resource for mentoring and tutoring. Our staff is here to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. Students are encouraged to take advantage of our 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 Room 126 in Clark Hall. It 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/.

**Counseling Services**

Personal Counselors are available to help students identify and accomplish their academic and career goals, enhance personal development, meet life’s challenges, and improve interpersonal relationships. Free short-term psychological counseling is available to individuals and couples who are matriculated students of San José State University. Students are eligible to receive six sessions per semester.
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 the Counseling Services website at http://www.sjsu.edu/counseling.

**Student Success and Wellness**

Attending to your wellness is critical to your success at SJSU. Take advantage of the workshops and programs offered through various Student Affairs Departments on campus such as Counseling Services, the SJSU Student Health Center/Wellness & Health Promotion Dept., and Career Center. See http://www.sjsu.edu/wellness or http://www.sjsu.edu/counseling/Workshops/ for workshop/events schedule and links to many other services on campus that support your wellness!

**Acknowledgments**

I would like to thank Dr. Ron Rogers, Dr. Dave Schuster, and Dr. Susan Snycerski for their contributions to this course and syllabus.

**How to succeed in online Stat 95**

- **Make your 16-week planning schedule and stick to it.** After initial data collection, revise schedule if needed. Watch the videos well before quizzes and exams are due so that you have time to re-watch topics that you are having difficulty understanding.

- **Ask questions!** Use the “Piazza” link on Canvas to ask questions regarding course content or assignments. Use online office hours to interact with your instructor. Students are also encouraged to answer other students’ questions when they know the answer, as well as “like” answers provided by other students.

- **Read** any assigned material carefully before due dates.

- **Take notes** while watching the videos.

- **Make flash cards.** Making flash cards with definitions of concepts, formulas, or terms shown in videos, terms in the lecture notes/postings, etc. is helpful when learning new information. Shuffle the cards and read the term while trying to remember the definition, next check for accuracy. Next, shuffle again and read the definition while trying to remember the term, next check for accuracy.

- **Check the Canvas website daily as this is your only contact with the instructor.** This site will allow you to view the syllabus, course policies, quizzes, assignments, writing projects, and class schedule. You will also be able to access your grades via this website.

- **Begin studying early for exams** (i.e., do not wait until the day before the exam to start studying). When you study, scramble the order in which you study the term and concepts. Research shows that this technique is superior to others.

- **Work a little bit each day, if possible.** Don’t try to cram all of the material in
right before an quiz or exam. This is a sure way to perform poorly. It is better to distribute your work across the week than to try and do it all at once.

• Keep track of your grade. It is good practice to know what your current grade is in the class. The self-management project will help you with this.

• Start all writing assignments early to be sure you have sufficient time to proofread and make corrections.

• Seek tutoring from Peer Connections: If you are the type of student who likes face-to-face meetings and need additional help, the Peer Connections offers free tutoring in Stat 95. Visit their website for more information: Peer Connections Tutors (http://peerconnections.sjsu.edu/tutoring/tutors_by_course/index.html#stat)
**STAT 095 – Elementary Statistics (Spring 2015) Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Start Date</th>
<th>Topics, Readings, Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-22</td>
<td>Pre-class surveys <em>(EXTRA CREDIT!)</em>&lt;br&gt;Engagement Week activities <em>(Required to avoid drop!)</em></td>
</tr>
<tr>
<td>2</td>
<td>1-29</td>
<td>L1: Introduction to Statistics &amp; Scientific Studies&lt;br&gt;L2: Frequency Distributions &amp; Visualizing Data</td>
</tr>
<tr>
<td>3</td>
<td>2-05</td>
<td>L3: Central Tendency&lt;br&gt;L4: Variability&lt;br&gt;Problem Sets 1-4</td>
</tr>
<tr>
<td>4</td>
<td>2-15</td>
<td><strong>Exam 1 (Lessons 1 – 4)</strong></td>
</tr>
<tr>
<td>4</td>
<td>2-16</td>
<td>L5: Standardized Scores (z-scores)</td>
</tr>
<tr>
<td>5</td>
<td>2-23</td>
<td>L6: The Normal Distribution</td>
</tr>
<tr>
<td>6</td>
<td>3-02</td>
<td>L7: The Sampling Distribution of the Mean</td>
</tr>
<tr>
<td>7</td>
<td>3-09</td>
<td>L8: Estimation (Confidence Intervals)</td>
</tr>
<tr>
<td>8</td>
<td>3-16</td>
<td>L9: Hypothesis Testing&lt;br&gt;Problem Sets 5-9</td>
</tr>
<tr>
<td>8</td>
<td>3-20</td>
<td><strong>Exam 2 (Lessons 5 – 9)</strong></td>
</tr>
<tr>
<td>9</td>
<td>3-21 to 3-27</td>
<td><strong>Spring Break (no classes)</strong></td>
</tr>
<tr>
<td>10</td>
<td>3-28</td>
<td>L10: Using <em>t</em> Tests to Compare Means</td>
</tr>
<tr>
<td>11</td>
<td>4-06</td>
<td>L11: Using <em>t</em> Tests to Compare Means, continued</td>
</tr>
<tr>
<td>12</td>
<td>4-13</td>
<td>L11: Using <em>t</em> Tests to Compare Means, continued</td>
</tr>
<tr>
<td>13</td>
<td>4-20</td>
<td>L12: One-Way ANOVA and Post-hoc Tests</td>
</tr>
<tr>
<td>14</td>
<td>4-27</td>
<td>L13: One-Way ANOVA and Post-hoc Tests, continued&lt;br&gt;Problem Sets 10-13</td>
</tr>
<tr>
<td>15</td>
<td>5-03</td>
<td><strong>Exam 3 (Lessons 10-13)</strong></td>
</tr>
<tr>
<td>16</td>
<td>5-04</td>
<td>L14: Correlation&lt;br&gt;L15: Simple Regression</td>
</tr>
<tr>
<td>Final Exam</td>
<td>5-22</td>
<td>Problem Sets 14-15&lt;br&gt;<strong>Exam 4 (Lessons 14 – 15)</strong></td>
</tr>
</tbody>
</table>

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1 This schedule is subject to change with fair notice. Notification of changes, if any, will be made via Canvas and/or email.

*Elementary Statistics, Stat 95, Spring 2015*