SAN JOSÉ STATE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY
STATISTICS 095: ELEMENTARY STATISTICS
SECTION 03
FALL 2016
ONLINE COURSE

Course and Contact Information

Instructor  Clifton M. Oyamot
Office Location  Clark 140
Telephone  (408) 924-5650
Email  Preferred: Mail function through course Canvas site or clifton.oyamot@sjsu.edu
Office Hours  Tuesdays and Thursdays, 1:00 – 2:00, or by appointment
Instructor will be in his office for face-to-face meetings and monitoring Canvas for online meetings.
Class Days/Time  Online (no in person meetings)
Classroom  Online (no classroom)
Prerequisites  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 http://testing.sjsu.edu/eptelm/.

Students not enrolled in the CSU system are exempt from this prerequisite.

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

See Fall 2014 GE Guidelines for a full description of Area B4 goals and requirements.
Course Description

Social scientists (psychologists, sociologists, etc.) ask interesting questions about human behavior. Chances are that in each of your social science classes, there was at least one study or finding that you found fascinating and that has stuck with you. But how did social scientists come to this knowledge; how did they develop these insights into human nature?

One important tool of many social scientists is statistical analyses. The overall goal of this course is for you to become “quantitatively literate.” Quantitative literacy in this case refers to an understanding of why statistics are important tools for studying behavior, how and when to apply specific techniques to a particular question or problem, and the ability to interpret statistical information and results. Learning the conceptual underpinnings and computational procedures for various statistical techniques is vital to this course. You will also be introduced to software that allows you to do basic and sophisticated statistical analyses on large datasets.

Topics to be covered include 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.

Course Format: Online

In my view, regardless of whether a course is conducted in a traditional face-to-face format, exclusively online, or anything in between, the essential learning experience for students is composed of roughly three parts: information delivery, interaction, and evaluation. Regardless of instructional mode, the goal is to provide students with the opportunity to meet the course learning objectives (evaluation) through a variety of information delivery and interaction techniques.

This is an online course, which in this case means:

**Information delivery** will be through viewing online video segments that describe and demonstrate statistical concepts and computations. There will be a set of primary videos accessed through Canvas for each concept covered, as well supplemental materials (e.g., additional youtube videos) should you require additional explanation. Office hours and the Canvas discussion board may also be means of information delivery.

**Interaction activities** will be completed online. **Interaction partners** will include activities done on your own, as well consultation and feedback from your instructor. Office hours and the Canvas discussion board may also be means of information delivery.

**Online interaction activities** will primarily consist of viewing video segments that describe and demonstrate statistical concepts and computations, and completion of online assignments and exams.

**Exams will be administered online using Respondus Lockdown** and other features to eliminate proctoring costs and minimize cheating opportunities.

Please see course assignments and schedule for in-class meetings and assignment type details.

**Evaluation and Feedback** will be provided through online means.
Enhancing Success in an Online Course

Because this is an online course, there is an increased responsibility on the part of the student to:

- **be diligent and conscientious in keeping up with course assignments.** It is easy to “put off” an online course when there are no specific obligations to attend class.
  - Appendix A of this syllabus contains tips for how to succeed in this online course and resources such as SJSU statistics tutors.

- **communicate with the instructor in a very timely manner whenever there are problems or issues.** Because we do not meet face-to-face, the only way for me to know if there are any glitches in the course is if students tell me.
  - Appendix B contains screenshots for using Piazza, the discussion board (accessed through Canvas) which you will use to post any questions about the course and assignments.

- **become familiar and comfortable with the online interface (Canvas) and resources for the course.** If you have any problems, please contact me as soon as possible so that they can be resolved.
  - See syllabus for Canvas access instructions.
  - Appendix C contains screenshots and specific instructions for utilizing the Canvas site. When first accessing the site, you should check out the
    - *announcements* link for any new information about the course
    - *modules* link, which is your primary guide through the course. It contains each learning module for the course (videos, lecture notes, problem sets, etc.), as well as links to the exams on days that they are due.
  - Appendix D contains screenshots and specific instructions for utilizing the Udacity video segments (accessed through Canvas) which will be the chief means of instruction.

**First actions for this course**

1. Review this syllabus
2. Log on to Canvas and click on this course.
3. Click on *announcements* to see any new information I have left for students
4. Click on Piazza discussion board and register
5. Click on *modules* and explore
6. Begin participating in the course by clicking on the engagement week module and working your way through the assignments
7. Post questions or issues about the course on Piazza.
8. **This is a quasi-self-paced course.** You can work ahead on assignments that lead up to an exam. The exams are held on a specific date, and you can begin them within the time range indicated in Canvas. Once begun, they must be finished within 1 hour and 15 minutes.
Learning Outcomes

Overview

Learning Outcomes (LOs) are specific, measurable goals and objectives that students have demonstrated upon successful completion of the course. GE/SJSU Course Learning Outcomes (GELOs) are course outcomes mandated by General Education and can be found, along with additional required course content, in the Fall 2014 GE Guidelines, which can be found here: http://www.sjsu.edu/senate/docs/2014geguidelines.pdf. There are two levels of learning outcomes being addressed in this course:

GE/SJSU Course Learning Outcomes (GELOs). These are outcomes mandated by General Education and can be found, along with additional required course content, in the Fall 2014 GE Guidelines.

- Program Learning Outcomes (PLOs). These outcomes refer to the broad goals of the SJSU Psychology Major program. The SJSU Psychology Major is designed to address 5 broad PLOs. These PLOs are outcomes students should be able to demonstrate after having successfully completed the Psychology Major.

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

GELO 1. To use statistical methods to solve quantitative problems, including those presented in verbal form, satisfied by the following major assignments (there are other assignments that also address this GELO): Exams 1 – 3, Analysis and Interpretation Project.

GELO 2. To demonstrate the ability to use mathematics and statistics to solve real-life problems, satisfied by the following major assignments (there are other assignments that also address this GELO): Analysis and Interpretation Project.

GELO 3. To arrive at conclusions based on numerical and graphical data, satisfied by the following major assignments (there are other assignments that also address this GELO): Exams 1 – 3, Analysis and Interpretation Project.

Additional GE/SJSU Content Requirements

- Completing Area B4 with a grade of C or better (C-not accepted) is a graduation requirement.

- Diversity. Issues of diversity shall be incorporated in an appropriate manner.

- Writing. The minimum writing requirement is 500 words in a language and style appropriate to quantitative analysis, which will be met by a project described later in the syllabus. Writing shall be assessed for grammar, clarity, conciseness and coherence.
Program Learning Outcomes (PLOs)

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.

Required Texts, Readings

No Required Textbook

There is no required textbook for this course. All concepts, formulas, and computational tutorials can be found through the resources provided in the course’s Canvas shell. However, there are a variety of free online resources that can supplement the course content. For example:

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

Required equipment/material requirements

- **Regular and reliable access to a computer and internet connection** that can support typical multimedia applications (e.g., streaming audio/video). This is essential for an online class. Unless the entire university network of Learning Management system is down, technological issues cannot be used as an excuse for not turning in work on time. So, plan ahead and do have a backup plan should you experience issues with your primary computer. SJSU provides a lot of computer support for students should you be having issues with your primary computer, including:
  - Academic Technology Computer Center
  - Information Technology Support Services (ITSS)
  - Library Student Computing Services Center
• **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.

• **Spreadsheet app** such as Excel, Numbers, or Google Docs.

• **Notebook paper, pencils.** Do computations for assignments “long hand” (on paper) so that you can be sure you have completed each step and can check your work should you get the incorrect answer. Expect to make mistakes, so use a pencil when working through problems.

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### Accessing and Using the Course Canvas site

The course Canvas site is an online resource essential for completion of this course. The site will be updated regularly throughout the semester. This site contains:

- Discussion Board (Course Announcements, student questions)
- Links to webpages that will be of use to you throughout the course
- Handouts and articles
- Lecture slides (generally posted after lecture is presented)
- Assignment submission
- Assignment feedback from instructor
- Grade roster

The course Canvas site provides all the resources you will need to successfully complete the class. It is very important that you become comfortable using the features of this site to maximize your success in the class.

To access the Canvas site go to [http://www.sjsu.edu/at/ec/canvas/](http://www.sjsu.edu/at/ec/canvas/) and click on “Log in to Canvas”

Username = *SJSU 9-digit ID*

Password = *your current MySJSU password.*

For additional information or help with logging in:

Canvas Student Tutorial: [http://www.sjsu.edu/at/ec/canvas/](http://www.sjsu.edu/at/ec/canvas/)

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### Course Structure

#### Modules

This course is divided into **Modules** which cover specific statistical concepts, formulas, and computational steps. Generally speaking, to complete each module you will:

- **View video segment(s) describing or demonstrating a concept.** These videos were developed by Drs. Sean Laraway and Ronald Rogers in a partnership with a private company called Udacity. Please note that:
  - You do NOT need to subscribe to Udacity’s services use these videos. They can be accessed directly through Canvas.
The person delivering the information in the Udacity videos, Katie Kormanik, is NOT your instructor. She was a Udacity employee who recorded the materials developed by Drs. Laraway and Rogers.

Appendix D of this syllabus contains screenshots and specific instructions for utilizing the video segments.

- Answer brief questions associated with many of the segments by right-clicking the “Answer the question” link that appears below the video segment.
- Complete self-adapted practice quizzes (see Assignments section for additional details).
- Complete problem set(s) for each module (see Assignments section for additional details).
- Complete final quiz or quizzes for each module (see Assignments section for additional details).
- Complete exam for sets of modules (see Assignments section for additional details).

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), 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.

Assessment in this class will include

<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>3 x 175 pts</td>
<td>525</td>
<td>70</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15 x 10 pts</td>
<td>150</td>
<td>20</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>14 x 2 pts</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>Analysis &amp; Interpretation Project</td>
<td>1 x 25 pts</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Engagement Week</td>
<td>5 x 4 pts</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>750</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Final grades in this course will be assigned as indicated below:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
<th>Percent</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 – 93</td>
<td>A</td>
<td>76 – 73</td>
<td>C</td>
</tr>
<tr>
<td>92 – 90</td>
<td>A-</td>
<td>72 – 70</td>
<td>C-</td>
</tr>
<tr>
<td>89 – 87</td>
<td>B+</td>
<td>69 – 67</td>
<td>D+</td>
</tr>
<tr>
<td>86 – 83</td>
<td>B</td>
<td>66 – 63</td>
<td>D</td>
</tr>
<tr>
<td>82 – 80</td>
<td>B-</td>
<td>62 – 60</td>
<td>D-</td>
</tr>
<tr>
<td>79 - 77</td>
<td>C+</td>
<td>59 or less</td>
<td>F</td>
</tr>
</tbody>
</table>

According to SJSU GE policy, this course must be passed with a C- or better as a CSU graduation requirement.
Exams (525 points)

There will be 3 examinations for this course. The exams are meant to assess your knowledge of the statistical concepts and calculations we cover in class.

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

- **Administration.** 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 and the Respondus Lockdown feature. 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.

- **Emergencies/Extenuating Circumstances.** No extensions or make-up exams will be given except in cases of reasonable and documented academic reasons, emergencies, serious illness, or similar seriously disruptive events. *If such a circumstance should arise, you must*
  
  - notify me before the end of the exam period (i.e., by 10 p.m. on the exam day).
  - 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.

Problem Sets (30 points). Each module (or “lesson) 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.

- **Self-assessment in preparation for the exam.** These problem sets are meant to help you self-assess your knowledge of the concepts covered in each module. If you have any questions about problems, post them to Piazza (discussion board).

- **Credit/No Credit.** All problem sets will be multiple-choice or short answer, and will be graded on a credit/no credit basis. 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.

- **You may use any support materials** (textbook, videos, notes, calculator, spreadsheet apps) when completing the problem set.

Final Quizzes (150 points). Each 20 minute 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.

- **All work should be your own.** You may not communicate with any other person (except for your instructor) while you complete the 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 may complete the quiz at any time before the due date.** Missed quizzes cannot be made up.

Analysis and Interpretation Project (25 points). This project will involve applying the skills you learn in this class to the analysis and interpretation of a dataset. You will be provided with a research
hypothesis and dataset that tests the hypothesis. After analyzing the data, you will write a brief report (approximately 500 words) of your statistical analysis, a graphical depiction of the data, and a conclusion as to whether the data support the hypothesis. More details are provided in Canvas.

**Engagement Week (20 points).** 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.

**Late Assignments**

Assignments are due as indicated in Canvas. *No extensions will be given except in cases of reasonable and documented academic reasons, emergencies, serious illness, or similar seriously disruptive events. If such a circumstance should arise, please contact me as early as possible and be ready to provide documentation.*

**Extra Credit**

Extra credit assignments are given at the instructor’s discretion. Should extra credit opportunities be extended, the total amount of extra credit points earned by a student will not exceed 1 – 2 % of the total number of points available in the course.
Classroom Protocol: Contacting Instructor

Contacting Instructor

1. I will answer emails M - F, 9:00 - 5:00. If you email me at night or on the weekends, do not expect a response until the next weekday, at the earliest.

2. Through Canvas mail function. Best for private questions and comments.

3. Through Canvas discussion board (Piazza). Best for questions about the course that need not remain private. Chances are others have the same questions you have.

4. Through SJSU email. clifton.oyamot@sjsu.edu.

5. By phone. Best if you need to contact me quickly and cannot use email at the time.

6. Consider emails for this course as professional correspondence (see sample correspondence below).
   a. Subject Line should include your class and a brief description of the issue (e.g., Subject: Psych 154-01: absence on 10-10-11).
   b. Greetings should be formal and use your instructor's title (e.g., Dear Dr. Oyamot or Professor Oyamot)
   c. Identify yourself and the course/section you are in.
   d. Issue or question should be stated clearly, concisely, respectfully, and with attention paid to grammar, complete sentences, and so forth.
   e. Expect replies within 1 - 3 days. Polite follow-ups are encourage if you have not heard from me in a reasonable amount of time.

Example email correspondence

Subject: Psyc 154-04: Assignment due date question

Dear Professor Oyamot (or Dr. Oyamot),

My name is Miranda Jackson and I am in your 154 class that meets T/Th 10:30 - 11:45. I am not sure when the Response Journal assignment is due because of conflicting information. The syllabus schedule says Nov. 5, but the assignment sheet itself says Nov 9. Thank you for your attention to this matter.

Regards,
Miranda
student id # 001234567

University Policies (Required)

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs’ Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/
<table>
<thead>
<tr>
<th>WEEK</th>
<th>DUE DATE</th>
<th>TOPICS, READINGS, ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>08/26</td>
<td>Engagement Week activities <em>(Required to avoid being dropped from course!)</em></td>
</tr>
</tbody>
</table>
| 2    | 09/02    | Module 1: Introduction to Statistics & Scientific Studies  
Module 2: Frequency Distributions & Visualizing Data |
| 3    | 09/09    | Module 3: Central Tendency  
Module 4: Variability  
09/14  | Problem Sets 1-4 |
| 4    | 09/16    | Exam 1 (Modules 1 – 4)** |
| 5    | 09/23    | Module 5: Standardized Scores (z-scores) |
| 6    | 09/30    | Module 6: The Normal Distribution |
| 7    | 10/07    | Module 7: The Sampling Distribution of the Mean |
| 8    | 10/14    | Module 8: Estimation (Confidence Intervals) |
| 9    | 10/21    | Module 9: Hypothesis Testing  
10/26  | Problem Sets 5-9 |
| 11   | 10/28    | Exam 2 (Modules 5 – 9)** |
| 11   | 11/04    | Module 10: Using tTests to Compare Means |
| 12   | 11/11    | Module 11: Using tTests to Compare Means, continued |
| 13   | 11/18    | Module 12: One-Way ANOVA and Post-hoc Tests |
| 15   | 11/30    | Module 13: One-Way ANOVA and Post-hoc Tests  
11/30  | Problem Sets 10-13  
12/02  | Exam 3 (Modules 10-13)** |
| 16   | 12/09    | Module 14: Correlation  
Module 15: Simple Regression  
Problem Sets 14-15 |
| FINAL| 12/16    | Optional: Exam Re-do** *(allowed to re-do ONE of the previous exams)*  
Analysis and Interpretation Project |

* This is a tentative timeline. The schedule is subject to change with fair notice. Students will be notified of schedule changes via email and/or Canvas.

** You may take the test anytime between 6am – 11:59 pm, BUT once you begin, you have 1 hour and 15 minutes to complete the exam.
Student Resources

Librarian:  Psychology
The SJSU library has a librarian who specializes in psychology (and other social sciences), and this librarian can serve as a very valuable resource for helping you to develop research ideas and locating appropriate research materials. The library also has an abundance of resources for doing psychology research:

Psychology Librarian:  Adriana Poo
408-808-2019
adriana.poo@sjsu.edu
http://libguides.sjsu.edu/psychology

Student Technology Resources
Computer labs for student use are available in the Academic Success Center at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

ACCESS Success Center
The ACCESS Success Center is a resource for College of Social Sciences students, which includes psychology majors. This center provides mentoring, tutoring, and advising especially geared for social science majors. The center provides workshops and presentations on writing, statistics, graduate school applications, and so forth. Visit their webpage for more information, http://www.sjsu.edu/access/

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.
Appendix A
How to succeed in online Stat 95

- **Make your course 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.** If you are the type of student who likes face-to-face meetings and need additional help, there are tutoring resources on campus.
  - **If you are not a SJSU student,** you should contact the department at your university which teaches statistics classes to see what tutoring resources are available.
  - **At SJSU,** tutoring resources available to you are
    - Office hour appointments with the instructor.
    - **Psychology Statistics Lab.** Computers and tutoring are available in DMH 350. Schedule information to be posted on Canvas.
    - **Peer Connections.** Visit their website for more information.
    - **ACCESS Success Center (CL 240).** Visit their website for more information.
    - **Student Technology Training Center.** Visit their website for more information.
Appendix B
Canvas Screenshots

Canvas Main Screen

Piazza is the main discussion board and office hour “meeting place.”

Modules is the main place where you access videos and assignments.

Piazza Discussion Board: Questions, Answers, and Office Hours
Appendix C
Canvas site (modules focus)

The **modules** link in Canvas is your primary guide through the course. It contains each learning module for the course as well as links to the exams on days that they are due.

The module above contains your first major lessons in statistics and visualizing data. In general, each module will contain, in order:

- Video instructions about major concepts and formulas
- Lecture notes formulas are included
- Additional instructional videos if you would like more explanation about concepts
- Quizzes and problems sets, along with their due dates and how many points they are worth.
Appendix D
Udacity Video Clip Structure

Structure of a video clip

- External link (will take you to YouTube)
- Video title
- Content and questions will appear here
- If you randomly grab an M&M from this jar, what color would it most likely be?
  - Red
  - Blue
  - Green
  - Orange
  - Yellow
- Video time
- Volume/mute
- Play video
- Minimize video
- Closed captioning (will provide captions)
- Enter full screen
- Settings (video quality)