SAN JOSÉ STATE UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

STATISTICS 095: ELEMENTARY STATISTICS

SECTION 03/63

SUMMER 2024

ONLINE COURSE (ASYNCHRONOUS)

Course and Contact Information

Instructor Nick Bathurst, MA (he/him)

Office Location DMH 230 (working remotely this session)

Telephone Via Zoom

Email <u>nicholas.bathurst@sjsu.edu</u>

Office Hours I'm available via Zoom meetings throughout the semester (including

weekends, if necessary). Feel free to send me an email to get a meeting

set up.

Class Days/Time Online (no in person meetings)

Classroom Online (no classroom)

Prerequisites Satisfaction of the Math Enrollment Category M-I or M-II,

or completion of a GE Area B4 Course with a grade of C- or Better.

GE/SJSU Studies Area B4 (Mathematical Concepts)

Intended for Psychology majors and minors as well as for programs in Behavioral Science, Child Development, Education, Health Science, Nursing, Nutritional Science, Social Science, and Social Work.

See Fall 2014 GE Guidelines for a full description of Area B4 goals and

requirements

Course Description

Welcome to STAT95 (Elementary Statistics)! First and foremost, this class is <u>Asynchronous</u>, meaning we do not have any in-person or online meeting times. All course material is available online through Canvas.

Statistics is a key component of research. Simply put, when scientists conduct research, they first develop a hypothesis to test an idea. Then, they develop a study to test the hypothesis (you'd learn about this in a research methods course). Once all the data is collected, scientists must analyze the data to see if they've found anything meaningful; this is what we're here to learn about in STAT95.

The overall goal of this course is for you to understand *why* statistics are important tools for research, *how* and *when* to apply specific techniques to a particular question or problem, and the ability to *interpret* statistical information and results.

Topics to be covered include hypothesis testing and predictive techniques to facilitate decision-making; data organization; descriptive (e.g., mean, median, mode) and inferential statistics (hypothesis testing); central tendency, variability, probability, and sampling distributions; graphic representation; correlation and regression; chi-square, t-tests, and analysis of variance (ANOVA); analysis and interpretation.

My Message to You!

My approach to teaching has always centered around <u>my perspective as a student</u>. Statistics was one of my favorite classes as a student at SJSU. I would try to build my course load each semester with some stats/math or research course so that I'd have at least one course I know I could look forward to. Stats was my comfort class.

But I realize Statistics isn't for everyone! I'm sure many of you may feel a bit anxious having to take this course as it's a requirement for many majors. My goal is to provide each of you with a <u>welcoming environment</u> so that you can come away from this course with limited stress/fears having both learned something useful that you can use in your everyday life and perhaps changed your view/understanding/appreciation of statistics for the future. This class isn't all that bad. If you struggle with math, all you need to know before taking this course is to: add, subtract, multiply, divide, and square root, all of which a calculator can do!

Given this is an online course, you may feel a sense of detachment from your peers, the course itself, or me. I realize it may be easy to fall behind, procrastinate, etc. because there are no specific meeting times. To mitigate this, I try to make myself available via email/zoom every day of the week. I always respond to emails within 24-48 hours (usually much quicker!). Come to me if you're struggling, please! I'm often able to accommodate a due date every now and then.

TL;DR (too long; didn't read): I love this course. If you find yourself struggling, please come to me and we'll figure out how to get you back on track to improve your understanding and course performance. I'm confident that each of you will gain something valuable from this course that you can use in your future courses, career, and life.

First Actions for this Course

This course is conducted entirely online; therefore, it is very important that you become familiar with the online resources and tools right away. <u>Please do the following on the first</u> day of class.

- 1. Review this syllabus!
- 2. Log into Canvas and click on the course.
 - a. go to http://my.sjsu.edu/ and click on the Canvas app.
 - b. Username = SJSU 9-digit ID
 - c. Password = your current MySJSU password
- 3. From the dashboard, click on the appropriate class (SU24: Stat-95 Sec 03)
- 4. Alongside the left-hand menu bar, click on **Announcements** to see any new information I have left for students
- 5. Click on *Piazza* discussion board and **sign-up**! This is very important as all announcements and discussion will be conducted through Piazza.
- 6. Click on *Modules* and explore the course content.
- 7. Begin participating in the course by clicking on the *Module: Engagement Week Start Here!* and working your way through the assignments.
- 8. Begin work on Module 1: Introduction to Statistics & Scientific Studies
- 9. Try out the different video types. There are two types of video presentations:
 - a. Udacity videos. The main videos for this class are the Udacity videos. These are short videos (usually 1 to 3 minutes long) that present 1 to 2 ideas followed by mini-quiz question (does not affect your grade). These videos cover all the class topics.
 - b. "Traditional" lecture videos. These are longer videos that follow the format of standard in-class lectures. I have provided these to supplement the Udacity videos. Some students may find this type of material more useful. Most, but not all, class topics are covered by these types of videos.
- 10. Post guestions or issues about the course on *Piazza*.
- 11. **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, you will have 1 hour and 30 minutes to complete the exam.

Course Format: Online (Asynchronous)

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 through a variety of information delivery and interaction techniques.

This is an *online* (asynchronous) 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 as supplemental materials (e.g., additional YouTube videos) should you require additional explanation.

Interaction activities will be completed online. *Interaction partners* will include activities done on your own, as well as consultation and feedback from your instructor.

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 the Respondus Lockdown Browser and other features to eliminate proctoring costs and minimize cheating opportunities. The Respondus Browser does <u>not</u> require a web camera.

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 the 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.
 - Canvas Student Tutorial: http://www.sjsu.edu/at/ec/canvas/

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 <u>Fall 2014 GE Guidelines</u>, 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 <u>Fall 2014 GE Guidelines</u>.

<u>Program Learning Outcomes (PLOs)</u>. 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
- GELO 2. To demonstrate the ability to use mathematics and statistics to solve real-life problems, satisfied by the following major assignments
- GELO 3. To arrive at conclusions based on numerical and graphical data, satisfied by the following major assignments
- GELO 4. To use basic mathematical techniques for solving quantitative problems and elementary numerical calculation (Specific to Area B4)
- GELO 5. To understand organization, classification, and representation of quantitative data in various forms (e.g., tables, graphs, percentages, measures of central tendency, and spread) (Specific to Area B4)
- GELO 6. To apply mathematics to everyday life (Specific to Area B4)
- GELO 7. To apply mathematical concepts to statistical inference (Specific to Area B4)

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/
- http://davidmlane.com/hyperstat/index.html
- www.openintro.org/stat/textbook.php
- http://www.statsoft.com/textbook/
- http://vassarstats.net/textbook/
- http://wiki.stat.ucla.edu/socr/index.php/EBook

Required equipment/material:

• 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. Calculators should be handheld and must have a square root and exponent buttons. Graphing calculators are not necessary (but you may use one if you like). For exams, you will need to use a calculator. You will not be allowed to use your cell phone, computer apps, or the internet.
- Spreadsheet app such as Excel or Google Docs.
- Notebook paper, pencils, or note taking app. Do computations for assignments "long hand" (on paper/tablet) so that you can be sure you have completed each step and can check your work should you get the incorrect answer.

Course Structure

Modules

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

- **Lecture Videos.** These videos were developed by Drs. Sean Laraway and Ronald Rogers in a partnership with a private company called <u>Udacity</u>. Please note that:
 - You do NOT need to subscribe to Udacity's services to use these videos. They
 can be accessed directly through Canvas.
 - Some students may find it easier and more engaging to watch the lecture videos directly through Udacity; below is the link to the original course: https://www.udacity.com/course/statistics--st095; I will provide a formal announcement about this on Piazza early on in the semester.
 - The person delivering the information in the Udacity videos is Katie Kormanik;
 This is not your instructor. Katie is a Udacity employee who recorded the materials developed by Sean Laraway and Ron Rogers.
 - Appendix D of this syllabus contains screenshots and specific instructions for utilizing the video segments.
- "Answer the Question." Most lecture videos end with a conceptual question or problem to solve. Below the video there is a link to "Answer the question;" simply shift + left-click the link to open the question into a separate tab. These questions do not count towards your grade and are only used for practice and to assess your knowledge of the content.
- Problem Sets (see Assignments section for additional details).
- Quizzes (see Assignments section for additional details).
- **Exams** (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, and completing assignments. More details about student workload can be found in <u>University Policy S12-3</u> at http://www.sjsu.edu/senate/docs/S12-3.pdf.

Assessment in this class will include:

Assessment Item	Items	Points	% of Final Grade (approximately)
Exams	3 x 175 pts	525	70
Quizzes	15 x 10 pts	150	20
Problem Sets	15 x 2 pts	30	4
Analysis & Interpretation Project	1 x 25pts	25	3
Engagement Day	6 Assignments	20	3
Total		750	100%

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

A+ = 97.0 to 100%	A = 93.0 to 96.9%	A- = 90.0 to 92.9%
B+ = 87.0 to 89.9%	B = 83.0 to 86.9%	B- = 80.0 to 82.9%
C+ = 77.0 to 79.9%	C = 73.0 to 76.9%	C- = 70.0 to 72.9%
D+ = 67.0 to 69.9%	D = 63.0 to 66.9%	D- = 60.0 to 62.9%
F = 59.9% or less Unsatisfactory		

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

Engagement Week (20 points). Engagement Week is your opportunity to make sure you're ready for an online structured course. The week will involve 7 activities; each designed to get you ready to succeed in our class and help us improve the class. More information is provided on the in the Engagement Week module within Canvas.

Important: This class is in high demand and there are many students on my waitlist
wishing to add. I must make spots available for students on my waitlist if I find enrolled
students are not completing assignments in the first few weeks of class. All 6
Engagement Day activities must be completed by July 12th in order to remain in the
course.

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 to 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 are
 graded on a credit/no credit basis. You will receive full credit no matter how well you do
 on the problem set. It is encouraged to redo the problem sets until you answer each
 question correctly.
- You may use any support materials (online textbooks, videos, notes, calculator, spreadsheet apps) when completing the problem set.

Quizzes (150 points). Each 20-minute quiz ~10 questions are worth 10 points.

- 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. If you miss a quiz, please reach out to me as soon as possible. I may be able to extend the due date with reasonable justification.

Exams (525 points). There are 3 exams for this course. The exams are meant to assess your knowledge of the statistical concepts and calculations we cover in class.

- **Content.** Exams consist of ~30 multiple choice and computational questions and are worth 175 points each.
- Administration. Each Exam is available online during a specific window of time (6 a.m. to 11:59 p.m.) on the dates scheduled below using Canvas and the Respondus Lockdown feature. Each exam is 90 minutes in duration. You may not pause the exam once you begin, so be prepared to complete it in a single sitting at the scheduled time. Please make sure to have a stable internet connection and reliable computer <u>before</u> starting the exam.
- You may use limited support materials (personal handwritten or typed notes,
 PowerPoint lecture slides, formula sheets, and a calculator) while taking an exam. You
 cannot use statistics textbooks (online/eBook or hardcopy) while taking the exam.
 Using the internet or any other statistical programs/apps/devices to figure out the
 answers or topics related to the exam is prohibited and considered cheating.

- All work should be your own. You may not communicate with any other person (except
 for your instructor) while you complete the exam. 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." Please do not cheat! Canvas makes it too easy to flag different forms of
 cheating.
- 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:
 - o notify me before the end of the exam period.
 - 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.

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 on Canvas.

Late Assignments

Assignments are due as indicated on 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 via email.

Extra Credit

There are a few extra credit opportunities in my course (up to 5% of allotted points). Extra credit opportunities are provided via the Piazza Discussion Board.

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 at the Office of Graduate and Undergraduate Programs' Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/

Classroom Protocol: Contacting Instructor

Contacting Instructor

1. I always try to answer emails within 24-48hrs; most of the time sooner. If you email me at night or on the weekends, do not expect a response until the next weekday, at the earliest.

- **2.** Through SJSU email. <u>nicholas.bathurst@sjsu.edu</u>; best for private questions or concerns.
 - a. You may also email me through Canvas if you find it easier.
- **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.** By Zoom or phone. Email me first to set up a time to meet/chat.
- 5. 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: Stat95-80: Trouble accessing video in Canvas).
 - **b.** *Greetings* All emails should begin with a greeting (e.g., Dear Nick, or Hi/Hello Nick, Hi Prof,). Please feel free to refer to me as Professor Nick, Nick, or Nicholas...I do not care!
 - **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 2 days. Polite follow-ups are encouraged if you have not heard from me in a reasonable amount of time. I receive a lot of emails, so chances are I have lost or forgot to reply to your email. Please ping me as necessary. I understand your urgency as a student with multiple classes and obligations!
 - **f. Content-Related questions.** All statistics related questions or questions about course structure (i.e., due dates, where to find something, logistical-type questions, etc.) should be posted in Piazza.
 - g. *Private/Grade*-Related Questions. Please email me privately.

Example email correspondence

Subject: Stat95-80: Assignment due date question

Hi Nick,

This is Jacob Cohen and I am in your Online Stat95 class. I am not sure when the Engagement week assignments are due because of conflicting information. The syllabus schedule says Aug. 20, but Canvas says it's due Aug 21. Hope to hear from you soon!

Kind regards,

JC

Statistics 095 Online Course Schedule*

Day	Due Date	Topics, Readings, Assignments	
3 - Wednesday	07/10	Engagement Day activities (6 assignments)	
4 – Thursday	07/11	Module 1: Introduction to Statistics & Scientific Studies	
5 – Friday	07/12	Module 2: Frequency Distributions & Visualizing Data	
6 – Monday	07/15	Module 3: Central Tendency	
7 – Tuesday	07/16	Module 4: Variability	
8 – Wednesday	07/17	Problem Sets 1-4 Exam 1 (Modules 1 – 4) **	
9 – Thursday	07/18	Module 5: Standardized Scores (z-scores)	
10 - Friday	07/19	Module 6: The Normal Distribution	
11 – Monday	07/22	Module 7: The Sampling Distribution of the Mean	
12 – Tuesday	07/23	Module 8: Estimation (Confidence Intervals)	
13 – Wednesday	07/24	Module 9: Hypothesis Testing	
14 – Thursday	07/25	Study Day	
15 – Friday	07/26	Problem Sets 5-9 Exam 2 (Modules 5 – 9) **	
16 – Monday	07/29	Module 10: Using t Tests to Compare Means	
17 – Tuesday	07/30	Module 11: Using t Tests to Compare Means, continued	
18 – Wednesday	07/31	Module 12: One-Way ANOVA and Post-hoc Tests	
19 – Thursday	08/01	Module 13: One-Way ANOVA and Post-hoc Tests, continued	
20 – Friday	08/02	Problem Sets 10-13 Exam 3 (Modules 10-13) **	
21 – Monday	08/05	Extra Credit: Module 10/11 assignment	
23 – Wednesday	08/07	Module 14: Correlation	
24 - Thursday	08/08	Module 15: Simple Regression	
25 – Friday	08/06	Problem Sets 14 & 15 Analysis and Interpretation Project Post-test (extra credit – up to 10points)	

^{*} 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.

GELOs: While most modules will touch on each (or most) GELO, the "GELOs column" represents which areas are more heavily covered.

^{**}Due date pertains to when the module quiz is due. Quizzes will not be available after the due date has passed. Problem sets are always due the day before the exam and can be taken as many times as you want before and after the due date.

^{**} Exams are available from 6am to 11:59 pm, BUT once you begin, you have 1 hour and 30 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: Christa Bailey

408-808-2422

christa.bailey@sjsu.edu

http://libguides.sjsu.edu/psychology

Student Technology Resources

Computer labs for student use are available in the <u>Academic Success Center</u> 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 <u>ACCESS Success Center</u> 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. To schedule a tutoring appointment, click on the link below, and once inside the webpage click on the "Scheduling an Advising Appointment" blue button and follow the drop-down menu options. For more information, visit the ACCESS Center webpage: 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 Tet (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 in the Student Health Center, Room 300B. 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

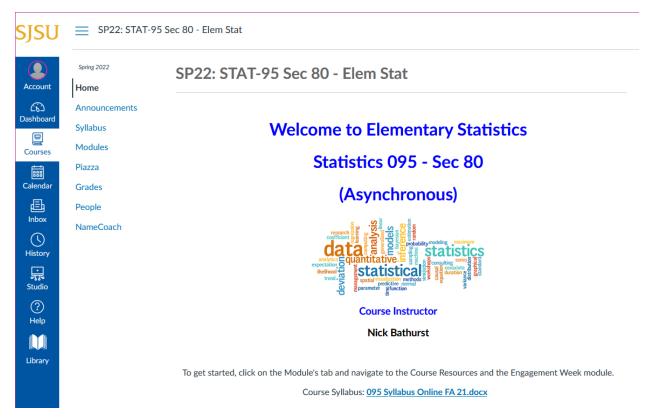
How to succeed in online Stat 95

- Make your course planning schedule and stick to it. After initial data collection, revise the 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 flashcards. Making flashcards 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. Canvas allows you to view the syllabus, 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 a 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.
- **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 needs additional help, there are tutoring resources on campus.
 - o 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.
 - <u>CASA Student Success Center</u>. Visit their website for more information.
 - ACCESS Success Center (CL 240). Visit their website for more information.
 - <u>Student Technology Training Center</u>. Visit their website for more information.

Appendix B

Canvas Screenshots

Canvas Main Screen



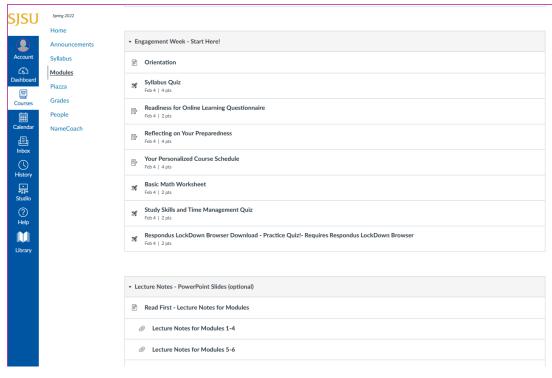
The **Syllabus** tab may be used to access important due dates (similar to the Calendar button). *Note.* This is not the *official* course syllabus. You can find the Course Syllabus at the top of the Modules section under Course Resources.

The **Modules** tab is the primary place where you access all lecture content (videos) and assignments (quizzes, problem sets, exams, etc.)

The **Piazza** tab is where you access the discussion board ("meeting place" for questions, comments, concerns).

The **Grades** tab is where you can monitor your performance in the course.

Appendix C Canvas Site (Modules Tab)



The *Modules Tab* 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 Problem Sets, along with their due dates and how many points they are worth.

Appendix D Udacity Video Clip Structure

Structure of a video clip

