

San José State University
Department of Justice Studies
JS 15, Intro Statistics in Justice Studies, Section 80, Fall 2019

Course and Contact Information

Instructor:	Michael Vallerga, M.A.
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Office Hours:	Tue/Thu, 1:45-2:45
Class Days/Time:	Online
Classroom:	Online

Faculty Web Page and MYSJSU Messaging

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the Canvas learning management system course website. Students are responsible for regularly checking the Canvas system to learn of any updates.

Course Description

Introduction to statistical applications, particularly statistical inference, including central tendency, variation, normal distributions, probability, estimation, hypothesis testing, measures of association, correlation, linear regression and the analysis of variance.

Prerequisites: Satisfaction of the ELM requirement. Since JS 15 meets the mathematical concepts G.E. requirement (Area B4), students must have passed the E.L.M. placement test – or have been exempted from it -- before enrolling in the course. Instructor cannot waive this requirement. Failure to meet this prerequisite will result in University canceling your enrollment in the course and denying credit regardless of any grade earned.

GE Category: Core G.E. Area B4 Mathematical Concepts. Please note that only a C or better in the course satisfies the G.E. requirement. Grades of C-and below do not. Semester grades of C- to D- are passing and earn three units credit, but they do not satisfy the Area B4 Mathematical Concepts requirement.

Course Goals and Learning Objectives

The student learning and content goals for Area B4 courses include the following (1-6):

1. **Using mathematical methods to solve quantitative problems.** Throughout the course, we will use basic mathematical operations to solve some statistical problems. Others will be solved by use of statistical software, putting to work these mathematical operations in more complex ways. We will use statistical formulas for both application and understanding. Students will need to be familiar with basic algebraic operations. Test items will typically be multiple choice, short answer, and essay, including word problems.
2. **Using mathematics to solve real life problems.** Practice problems and tests questions will be, in most cases, derived from everyday life and publically available data. However, some data will also be made up, but designed to reflect current events and issues.
3. **Arriving at conclusions based upon the numerical and graphical data.** We will be going over a few different ways to present data, highlighting the benefits and important aspects of each.
4. **Applying mathematical concepts in one or more areas.** After covering foundational statistical concepts, this course will focus on probability and inferential statistics. These are essential to understanding how statistics are used in academic writing and social scientific findings that support the fields that are covered in many future courses students will complete.
5. **Incorporating issues of diversity.** There will be a number of examples and test and homework questions that will deal with issues of diversity in a number of forms that include race, ethnicity, national origin, religion, sex, physical abilities, age, marital status, citizenship, economic levels, and/or sexual orientation.
6. **Writing requirements (minimum 500 words):** In clear and concise language, students will be using their understanding of statistical concepts to interpret results, both in assignments and when responding to short answer/and or essay questions on quizzes and the Final Exam. Writing skills are important. A portion of how short answer and essay questions are evaluated will include the thoroughness and clarity of responses.

Texts/Readings

Recommended Textbook

Salkind (2016). *Statistics for People Who Think They Hate Statistics*, 6th Edition. SAGE Publications. ISBN-10: 1506333834

Required Software

SPSS is required for much of the homework assignments. Fortunately, a student license is available for free from SJSU online:

<http://its.sjsu.edu/services/software/#spss>

Alternatively, if you bring a thumbdrive at the Academic Technology Computer Center in CL102 (Their hours: Monday - Thursday: 8:00 a.m. - 9:45 p.m. / Fridays: 8:00 a.m. - 4:45 p.m).

Alternatively, students may borrow a computer with SPSS from the Student Computing Services at the Library for a week at a time.

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](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

Classwork Assignments (24 Points)

Checkpoint Assignments are intended to give students a practice activity to make sure that students are following along and to help them remember important parts of what was covered. There will be 24 of these over the course of the semester. Each is worth 1 Point. Credit is received for completion, regardless of accuracy. I recommend you use them as a tool for reinforcing learning. Once the module for each of these are locked (after each quiz), you will be unable to complete them.

Homework (32 Points)

There will be a homework component every week, often twice a week. The first third of the course will involve homework assignments involving conceptual understanding of foundations of statistics, as well as some that include simple SPSS assignments. The second two-thirds will be almost exclusively SPSS assignments. Each homework assignment will be graded with comments as to where students might have gone wrong. There will be a total of 17 Homework Assignments over the course of the semester. Each Homework assignment is worth 2 points. The lowest grade will be dropped.

Quizzes (24 Points)

There will be three Quizzes. Each Quiz will cover the past topics since the previous Quiz. Formulas will not be provided. Each Quiz is worth 8 points.

Final (22 Points)

The Final will be cumulative and worth 22 Points. Formulas will not be provided.

Grading Policy

The final course grade will be based on a 100-point scale. Since the grade is based on mastery of the material, it is theoretically possible for everyone to earn an A.

My grading scale is:

98 – 100 A+	92 – 97 A	90 – 91 A-
88 – 89 B+	82 – 87 B	80 – 81 B-
78 – 79 C+	72 – 77 C	70 – 71 C-
68 – 69 D+	62 – 67 D	60 – 61 D-
59 and below F		

The grade is composed of:

In-Class Assignments	22 points
Homework	32 points
Quizzes	24 points
Final Exam	22 points
Total:	100 points

Extra Credit

There will be Extra Credit assignments, including the first set of ‘algebra primers’.

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](http://www.sjsu.edu/senate/docs/F13-1) at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

Classroom Protocol

Instructor’s Note on Communication

Office hours will be conducted in person and through Blackboard Collaborate sessions via CANVAS. I will post announcements about the specific dates and times.

As you know, a university degree is a significant undertaking and requires a high level of commitment, time management, organization, and initiative. Thus, it is in your best interest to stay on top of the readings and keep in touch with the instructor. The best way to keep in touch is in-person during office hours (virtually), or at another time by appointment. If you cannot meet with me in person (virtually), I prefer that you email me. Emails will be mostly only responded to during business hours (Monday through Friday only). Please note: all communication regarding assignment grades and exam grades must be conducted in person and not via email. When you send me an email please put “JS 15 Section 1” and your full name in the subject line. Emails without this will most likely be discarded without response.

University Policies:

The Office of Graduate and Undergraduate Programs maintains university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc.

You may find all syllabus related University Policies and resources information listed on GUP's Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

In addition, I wanted to emphasize the following for this course:

Student Technology Resources

Computer labs for student use are available in the [Academic Success Center](http://www.sjsu.edu/at/asc/) at <http://www.sjsu.edu/at/asc/> located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. 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 DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

Course Schedule: JS 15 / Intro Statistics in Justice, Fall 2019

(subject to change with fair notice via Class Announcement & CANVAS Note)

	Week of:	Topics	Readings / Assignments
<i>Part 1</i>			
	8/19	PEMDAS; Algebra Basics I & II	
	8/19	Introduction to Statistics; Levels of Measurement	HW 0 ; Skim Chapter 1 & Read Syllabus
	8/26	Intro to SPSS; Central Tendency	HW 1 ; Get SPSS ; Read Chapter 2
	9/2	Variance & Standard Deviation	Read Chapter 3 & 4; HW 2 & 3
	9/9	Visualizing Data	HW4 ; Quiz 1
<i>Part 2</i>			
	9/16	Probability	Read Chapter 7; HW 5 ; Read Chapter 8
	9/23	Significance Tests	HW 6 ; Read Chapter 9
	9/30	Z-Test	Read Chapter 10; HW 7 ; Quiz 2
<i>Part 3</i>			
	10/7	t-Test (part 1)	Read Chapter 11; HW 8
	10/14	t-Test (part 2)	Read Chapter 12; HW 9
	10/21	Writing Inferential Statistics	
	10/28	ANOVA	Read Chapter 13; HW 10 & 11 ; Quiz 3
<i>Part 4</i>			
	11/4	Regression: The Basics	Read Chapter 5; HW 12
	11/11	Correlation	Read Chapter 15; HW 13
	11/18	Bivariate Regression; Multivariate Regression	Read Chapter 16; HW 14
THANKSGIVING WEEK			
	12/2	Chi-Square	Read Chapter 17; HW 15 & 16
	12/12, Noon to 12/18, Midnight	FINAL EXAM	