# San José State University Department of Justice Studies JS 203, Sem in Applied Statistics in Justice Studies, Spring 2022

#### **Course and Contact Information**

**Instructor:** Michael Vallerga, M.A.

Office Location: [UPDATE]

**Telephone:** N/A

Email: michael.vallerga@sjsu.edu

**Office Hours:** Wednesdays 3:30 - 4:30PM

Class Days/Time: Wednesdays 4:30 - 7:15PM

Classroom: Dudley Moorhead Hall 150

# 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**

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

- 1. Discuss the basic procedures of common quantitative statistical procedures used in criminology.
- 2. Identify and apply the most appropriate quantitative statistical procedures for the data.
- 3. Conduct, present, and write scientific research reports on quantitative data

# Texts/Readings

#### **Textbook (Recommended)**

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 are: Monday thru 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 <u>University Policy S12-3</u> at <a href="http://www.sjsu.edu/senate/docs/S12-3.pdf">http://www.sjsu.edu/senate/docs/S12-3.pdf</a>.

#### Classwork Assignments (14\*1=14 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 14 of these over the course of the semester. Each is worth 1 Point. Credit is received for completion of and engagement with the assignment, 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 (9\*4=36 Points)

There will be nine homework assignments. They will be opportunities to practice and then get feedback on your understanding of and ability to do particular statistical analyses. Each homework assignment will be graded with comments as to where students might have gone wrong. Each Homework assignment is worth 4 points.

# Quizzes (3\*5=15 Points)

There will be three Quizzes. Each Quiz will cover the past topics since the previous Quiz. Each Quiz is worth 8 points.

#### Student Presentations (10 Points)

Prior to submitting a final paper, students will present their research to the class to a) get experience at presenting to their peers, and b) receive feedback from peers and the instructor to integrate into their final research paper submission.

These will be brief, 5 minute presentations focusing on explaining their research questions and statistical findings.

More in-depth requirements are outlined in the Assignment Guidelines provided on Canvas.

This assignment will specifically address CLO 3.

#### Final Paper (25 Points)

The Final Paper will be the culmination of many things students have learned over the whole course. It will take the form of an original quantitative research paper. It will include the following sections: introduction, a brief literature review, methodology, data analyses, results, and conclusions. It will be due at the end of the course and will be worth 25 Points.

#### **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	14 points
Homework	36 points
Quizzes	15 points
Student Presentation	10 points
Final Paper	25 points
Total:	100 points

#### Extra Credit

There will be at least one Extra Credit assignment.

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 <u>University Policy F13-1</u> at <a href="http://www.sjsu.edu/senate/docs/F13-1.pdf">http://www.sjsu.edu/senate/docs/F13-1.pdf</a> 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 <u>Academic Success Center</u> 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, Spring 2022**

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

Weekly Friday Meeting	Topics	Assignments Due /Readings
1/26	Introduction to Statistics; Levels of Measurement;	Skim Chapter 1,
2/2	Variance & Standard Deviation; Central Tendency	HW 1; Get SPSS / Read Syllabus, Chapters 2 & 3, Article 1
2/9	Visualizing Data; Intro to SPSS	HW 2 / Chapter 4
2/16	Probability & Hypotheses; Hypothesis Testing;	HW 3 / Article 2, Chapters 7 & 8
2/23	Significance Tests; Review for Quiz 1	Quiz 1 / Article 3; Chapter 9
3/2	Writing Inferential Statistics; Chi-Square	Article 4, Chapter 17
3/9	T-Tests	<b>HW 4</b> / Article 5, Chapters 11 & 12
3/16	ANOVA	HW 5 / Article 6, Chapter 13
3/23	Practical Chi-Square/T-Tests/ANOVA Exercise; Review for Quiz 2	HW 6; Quiz 2
3/30	SPRING RECESS	– NO CLASS
4/6	Regression: The Basics; Correlation	Article 7, Chapter 5 & 15
4/13	Bivariate Regression; Multivariate Regression	HW 7 / Article 8, Chapter 16
4/20	Logistic Regression	HW 8 / Article 9, Logistic Regression Reading
4/27	Practical Correlation/Regression Exercise; Review for Quiz 3	HW 9; Quiz 3
5/4	Writing Inferential Statistics 2; Final Paper Workshop	
5/11	Student Presentations	Student Presentations
Wed, May 18 4:30-7:15PM	FINAL PAPER; Culminating Experience	FINAL PAPER