

**San José State University**  
**Department of Justice Studies**  
**JS 203: Seminar in Applied Statistics in Justice**  
**Spring 2020**

**Course and Contact Information**

Instructor: Bryce Westlake

Office Location: Health Building 210B

Email: [Bryce.Westlake@sjsu.edu](mailto:Bryce.Westlake@sjsu.edu)

Office Hours: *In-Person*

Monday 11:30 am to 1:00 pm

Wednesday 3:00 pm to 4:00 pm

*Online*

Tuesday 11:00am to 1:00pm

## Required Texts/Readings

Brown, T. (2014). *Confirmatory Factor Analysis for Applied Research (2<sup>nd</sup> Edition)*. New York: The Guilford Press.

Hanneman, R., & Riddle, M. (2005). *Introduction to Social Network Methods*. Riverside, CA: University of California, Riverside. Published in digital form at <http://faculty.ucr.edu/~hanneman/nettext>.

Other readings supplied via Canvas

## Other technology requirements / equipment / material

Depending on the method selected for their final research paper, students will need to have access to SPSS (AMOS), SAS, or UCINET. More details will be provided in class.

## Library Liaison

Silke Higgins, [silke.higgins@sjsu.edu](mailto:silke.higgins@sjsu.edu), (408) 808-2118, <http://libguides.sjsu.edu/justicestudies>

## Course Requirements and Assignments

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 **three hours per unit per week**) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

*Critical Discussion (13%)*: All participants are expected to take an active role in each seminar as both learners and teachers. You are expected to complete the weekly required readings prior to each seminar. You are going to benefit the most from class discussions, explanations, and activities if you have some knowledge about the concepts studied each week. In each class you should demonstrate that you have read the assigned materials ahead of time, raise and discuss issues, and fully engage with the class. Discussion in seminars will focus on both the readings and on your research projects. This assignment will specifically address CLO 1 & 2.

*Homework (12%)*: Students will complete six homework assignments that will involve analyzing data using the statistical method covered that week. This assignment will specifically address CLO 1 & 2.

*Research Presentation (15%)*: 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) to receive feedback from peers and the instructor that can be integrated into their final research paper submission. More in-depth requirements are outlined in the Assignment Guidelines provided on Canvas. This assignment will specifically address CLO 3.

*Research Paper (35%)*: Students will write an original, quantitative, research paper. You are responsible for finding your own dataset to analyze. There are plenty of datasets available, free of charge, through public repositories. You may use any of the techniques covered in the course. In addition to your research paper, you are to submit your final dataset(s) and a copy of the syntax file with notations, used to create the datasets and analyze the data. The research paper is to be properly formatted and referenced, using the style guide provided on Canvas. More in-depth requirements are outlined in the Assignment Guidelines provided on Canvas. This assignment will specifically address CLO 3

*Big Quiz (25%)*: The *Big Quiz* will occur during the week of the course and will be comprised of material covered in the readings and lectures. Students will be allowed to have one page of notes for the exam. More details will be provided as the date draws near. This assignment will specifically address CLO 1 & 2.

**Final Examination or Evaluation**

Faculty members are required to have a culminating activity for their courses, which can include a final examination, a final research paper or project, a final creative work or performance, a final portfolio of work, or other appropriate assignment.

## JS 203: Seminar in Applied Statistics in Justice Spring 2020 Course Schedule

This course schedule is subject to change with fair notice, at the instructor's discretion. All reading assignments listed should be completed prior to class on that date. Additional readings may be assigned.

Date	Topic	Readings	Videos
Jan 29 <sup>th</sup>	Introduction & Descriptive Statistics	None	<a href="https://youtu.be/LPHYXPBK_ks">https://youtu.be/LPHYXPBK_ks</a>
Feb 5 <sup>th</sup>	Variance, Standard Deviation, Normal Curve, & Statistical Significance <i>Homework #1 Due Feb 9<sup>th</sup></i>	None	<a href="https://youtu.be/MRqtXL2WX2M">https://youtu.be/MRqtXL2WX2M</a> <a href="https://youtu.be/gpKEfVZIPj4">https://youtu.be/gpKEfVZIPj4</a> <a href="https://youtu.be/gV1gUdFvI54">https://youtu.be/gV1gUdFvI54</a> <a href="https://youtu.be/nb75_GFDP9A">https://youtu.be/nb75_GFDP9A</a>
Feb 12 <sup>th</sup>	T-Test <i>Homework #2 Due Feb 16<sup>th</sup></i>	T-Test (Canvas)	<a href="https://youtu.be/pTmLQvMM-1M">https://youtu.be/pTmLQvMM-1M</a>
Feb 19 <sup>th</sup>	Chi-Square <i>Homework #3 Due Feb 23<sup>rd</sup></i>	Chi-Square 1 (Canvas) Chi-Square 2 (Canvas)	<a href="https://youtu.be/SvKv375sacA?t=821">https://youtu.be/SvKv375sacA?t=821</a> <a href="https://youtu.be/GMz0HAXubuU">https://youtu.be/GMz0HAXubuU</a>
Feb 26 <sup>th</sup>	ANOVA <i>Homework #4 Due Mar 1<sup>st</sup></i>	ANOVA 1 (Canvas) ANOVA 2 (Canvas)	Statistics 101: ANOVA (Videos 1-4) - <a href="https://www.youtube.com/playlist?list=PLIeGtxpvyG-KA-BLkL391X_r0kU4_hm5">https://www.youtube.com/playlist?list=PLIeGtxpvyG-KA-BLkL391X_r0kU4_hm5</a>
Mar 4 <sup>th</sup>	Linear Regression <i>Homework #5 Due Mar 8<sup>th</sup></i>	Linear Regression (Canvas)	Statistics 101: Simple Linear Regression (Videos 1-4) - <a href="https://www.youtube.com/watch?v=ZkjP5RJLQF4&amp;list=PLIeGtxpvyG-LoKUpV0fSY8BGKIMIdmfCi">https://www.youtube.com/watch?v=ZkjP5RJLQF4&amp;list=PLIeGtxpvyG-LoKUpV0fSY8BGKIMIdmfCi</a>
Mar 11 <sup>th</sup>	Multiple Regression <i>Homework #6 Due Mar 15<sup>th</sup></i>	Multiple Regression (Canvas)	Statistics 101: Multiple Regression (Videos 1-4) - <a href="https://www.youtube.com/playlist?list=PLIeGtxpvyG-IqjoU8IiF0Yu1WtxNq_4z-">https://www.youtube.com/playlist?list=PLIeGtxpvyG-IqjoU8IiF0Yu1WtxNq_4z-</a>
Mar 18 <sup>th</sup>	Social Network Analysis I	Hanneman & Riddle Ch. 1-7	<a href="https://youtu.be/fgr_g1q2ikA">https://youtu.be/fgr_g1q2ikA</a>
Mar 25 <sup>th</sup>	Social Network Analysis II	Hanneman & Riddle Ch. 8-13	<a href="https://youtu.be/2iViaEAytxw">https://youtu.be/2iViaEAytxw</a> <a href="https://youtu.be/NgUj8DEH5Tc">https://youtu.be/NgUj8DEH5Tc</a>
Apr 1 <sup>st</sup>	<b>SPRING BREAK (NO CLASS)</b>		

Date	Topic	Readings	Videos
Apr 8 <sup>th</sup>	Principal & Exploratory Factory Analysis	Brown Ch. 2	<a href="https://youtu.be/WV_jcaDBZ2I">https://youtu.be/WV_jcaDBZ2I</a> <a href="https://youtu.be/rQZiy7GE-LM">https://youtu.be/rQZiy7GE-LM</a>
Apr 15 <sup>th</sup>	Confirmatory Factor Analysis	Brown Ch. 3, 4, & 5 <i>Opt.=-2 (y8849 &gt;0DC BT /CS0 cs 0 scn 12 -054 12 517.74 709.92 Tm</i>	