

**San José State University**  
**Department of Economics**  
**Econ 3, Economic Statistics, Sections 1 & 2, Fall, 2018**

**Course and Contact Information**

|                  |  |
|------------------|--|
| Instructor:      | Greg Hanle   |
| Office Location: | DMH 219  |
| Telephone:       | 924-5400 (dept.)   |
| Email:           | (gregory.hanle@sjsu.edu)   |
| Office Hours:    | T: 5:15-6:15pm, Th: TBA (online), F: 1:00-2:00pm, and by appointment |
| Class Days/Time: | T: 6:30-9:15pm   |
| Classroom:       | DMH 166  |
| Prerequisites:   | Econ 1A and Econ 1B  |

**Course Format**

**Technology Intensive, Hybrid, and Online Courses**

As this course makes use of software such as StatCrunch and Excel in addition to online learning management systems, access to a computer with an internet connection is mandatory. Note: several computer labs are available on campus for student use.

In this class, you will be accessing lab computer assignments and submitting them through the Canvas learning management system. You will also be able to access your grades on the Canvas site. Finally, we will use the “zoom” web-conferencing feature to interact online.

To begin, you need to know how to access Canvas.

Login URL : <https://sjsu.instructure.com>

Username : SJSU 9-digit ID

Password : your SJSU One Account Credentials

After logging in, select “FA18: Econ-3 Sec 1 – Econ Statistics” under “Courses”.

You will also have access to the electronic version of our text and have homework assignments to do almost every week through the MyStatLab website. Go to [www.pearson.com/mylab](http://www.pearson.com/mylab) to log in or create an account. The course ID for our class is: hanle31152

Note: there is a fee for using the MyStatLab website (you have a grace period to pay this fee once you sign up). Make sure you have the right access code for MyStatLab, as they differ by year. **The appropriate ISBN for the access card is: 9780134748610** (if not paying the website directly). There is no fee for the Canvas site.

**Course Description**

Elementary statistical analysis of economic data, probability theory, probability distributions, sampling, sampling distributions, estimation, hypothesis testing, simple linear regression, correlation and index numbers.

## Course Learning Outcomes (CLO)

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

1. Define statistical terms as they relate to descriptive and inferential statistics.
2. Learn basic probability rules and essential probability distributions.
3. Learn sampling and basic sampling theory distributions.
4. Learn how to make inferences about population parameters.
5. Learn about basic regression analysis.
6. Apply computer software (StatCrunch) to analyze data.

## Required Texts/Readings

### Textbook

*Statistics for Business and Economics*. James T. McClave, P. George Benson, Terry Sincich  
Pearson, 13<sup>th</sup> edition, 2018. ISBN-13: 978-0-13-450659-3

(Note: an electronic version of this book will be available on MyStatLab, which we will use for this course)

### Other Readings

*Primer on Bayesian Statistics*. T. S. Means, 2011  
(<http://www.sjsu.edu/people/tom.means/courses/econ3/>)

## Course Requirements and Assignments

This is an introductory course in statistics and probability theory. You must have a good working knowledge of basic algebra. Attendance in class is highly recommended since lecture material will go into more depth than the text. Lecture material will also be emphasized on the exams and some lecture material is not in the text. If you are having problems with the course material, please see me early on in the course. I might be able to help you achieve better results if I know of your problem soon enough.

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.

This is a four-unit course. There are three hours of lecture along with 2 hours of lab work each week. You will learn the computer software, work on computer projects, and go over homework problems during the lab period. This course has learning objectives, rigor, class meeting times, and assignments commensurate with the expectation of 12 hours of work per week across 15 weeks in a semester.

There will be 3 exams given during the course, and one Final exam. The lowest mid-term exam score will be dropped. (**NOT** the final!) 10% of the lowest mid-term exam score will count as extra credit towards Exams. The exams will be **closed book**. You may write formulas on a piece of paper to use during an exam. Grading will be done on a curve.

**No make-up Exams or Quizzes will be given! (part of why lowest score is dropped)**

## Grading Information

All exams and quizzes will be done in class in a written, short-answer format (often in demonstration of calculations). Some explanations of answers to calculations may be required for some questions. Partial credit will be awarded when applicable.

Homework assignments will be done on the MyStatLab website in a fill-in-the-blank format. Often these assignments will include multiple choice questions.

Lab Projects will be turned in to our Canvas course page. These projects will require students use statistical software to make calculations and graphs. These will then be copied and pasted onto word documents and submitted.

## Determination of Grades

|                     |            |
|---------------------|------------|
| Midterm Exams       | 40%        |
| Final Exam          | 20%        |
| Quizzes             | 20%        |
| Homework            | 10%        |
| <u>Lab Projects</u> | <u>10%</u> |
|                     | 100%       |

**Grading Scale:** number of points (percentages).....letter grade

97-100.....A+ 93-96.....A 90-92.....A-  
87-89.....B+ 83-86.....B 80-82.....B-  
77-79.....C+ 73-76.....C 70-72.....C-  
67-69.....D+ 63-66.....D 60-62.....D- 0-59.....F

## Classroom Protocol

Turn off cell phones because they are not allowed during class time. Laptops are allowed during class times but not during exams. Bring a calculator if you have trouble with basic math (not a graphing calculator). Although computers are required for this course, it is **highly advisable** that you take notes in class on paper.

You are late to class when I close the front door to the classroom. If you are late, please enter the room quietly. If you need to leave class early, sit in the rear of the classroom.

## University Policies

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](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

The Economics Department has resources such as tutoring available to students. A complete listing and description of services can be found here: <http://www.sjsu.edu/economics/resources/>

## Econ 3 / Economic Statistics, Fall 2018, Course Schedule

*Schedule is subject to change with fair notice, either in class or online through canvas*

| Week   | Date  | Topics, Readings, Assignments, Deadlines  |
|--------|-------|---|
| 1<br>☺ | 8/28  | Introductions, Ch 1: <u>Statistics, Data, and Statistical Thinking</u>  |
| 2      | 9/04  | Ch 2: <u>Methods for Describing Sets of Data</u><br>(homework for Ch 1 and 2 due 9/10 at 11:59pm)                 |
| 3      | 9/11  | Ch 3: <u>Probability</u><br>(homework for Ch 3 due 9/17 at 11:59pm)   |
| 4      | 9/18  | Ch 4: <u>Random Variables and Probability Distributions</u> ,<br>then <b>Exam 1 on Ch 1, 2, and 3</b>             |
| 5      | 9/25  | Continuing with Ch 4  |
| 6      | 10/02 | Finishing Ch 4, then Ch 5: <u>Sampling Distributions</u><br>(homework for Ch 4 due 10/8 at 11:59pm)               |
| 7      | 10/09 | Finishing Ch 5<br>(homework for Ch 5 due 10/15 at 11:59pm)  |
| 8      | 10/16 | Ch 6: <u>Estimation with Confidence Intervals</u> ,<br>then <b>Exam 2 on Ch 4 and 5</b>                           |
| 9      | 10/23 | Finishing Ch 6, then Ch 7: <u>Tests of Hypothesis</u><br>(homework for Ch 6 due 10/29 at 11:59pm)                 |
| 10     | 10/30 | Finishing Chapter 7, then Ch 8: <u>Inferences Based on Two Samples</u><br>(homework for Ch 7 due 11/5 at 11:59pm) |
| 11     | 11/6  | Finishing Ch 8, then Inferences about Variances (Ch 6, 7, and 8)<br>(homework for Ch 8 due 11/12 at 11:59pm)      |
| 12     | 11/13 | Finishing Inferences about Variances,<br>Then <b>Exam 3 on Ch 6, 7, and 8</b>                                     |
| 13     | 11/20 | Ch 10: <u>Categorical Data Analysis</u>   |
| 14     | 11/27 | Finishing Ch10<br>(homework for Ch 10 due 12/3 at 11:59pm)  |
| 15     | 12/4  | Ch 11: <u>Simple Linear Regression</u><br>(homework for Ch 11 due 12/10 at 11:59pm)                               |
| 16     | 12/11 | Study/ Conference Day (no class)  |
| Final  | 12/18 | <b>Exam 4 on Previous Material AND Ch 10, 11 (7:45-10:00pm)</b>   |