# Economics 3 Introductory Statistics and Probability

Office: 140 DMH

**Phone:** 924-5414(office) 924-5400(dept.)

**Email:** tom.means@sjsu.edu.

**Faculty** 

Webpage: <a href="http://www.sjsu.edu/people/tom.means/">http://www.sjsu.edu/people/tom.means/</a>

**Office** 

**Hours:** MW 12:00pm - 1:15 pm, and by appointment

Add/

**Drops:** You are responsible for all University and Department guidelines

regarding the adding and dropping of a class. Please consult the

SCHEDULE OF CLASSES.

**Text:** Statistics for Business and Economics, James T. McClave, P. George

Benson, Terry Sincich, Pearson, 12th edition, 2014

Statistics for Business and Economics, James T. McClave, P. George

Benson, Terry Sincich, Pearson, 13th edition, 2018

Primer on Bayesian Statistics, T. S. Means, 2011

(http://www.sjsu.edu/people/tom.means/courses/econ3/)

## Student Learning Objectives:

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

# Course

# Info:

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.

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 as part of your online lab period.

#### **Disability:**

Any student with a disability requiring an accommodation should make this need known to the instructor during the first class period. Every effort will be made to accommodate your needs.

#### Exams, Lab and

#### **Homework:**

There will be **three exams** of equal weight, equally spaced throughout the course. The exams will be **closed book.** You may write formulas on a piece of paper to use during an exam. Incomplete grades will only be considered if you have a grade of C or better. Grading will be done on a curve.

Exam 1	25%
Exam 2	25%
Exam 3	25%
Quizzes	15%
Lab Projects	10%
-	100%

#### **Classroom Protocol:**

Turn off cell phones. You are late to class when I close the front door to the classroom. If you are late, enter thru the rear door. If you need to leave class early, sit in the rear of the classroom. During exams, I would prefer you bring a calculator if you have trouble with basic math, but cell phones are allowed and must be in airplane mode.

### **Course**

# **Outline:**

01/28(W)	Introduction - McClave (1, 3.1)
01/28(M)	Probability Definitions - Primer (1), McClave (3.1)
01/30(W)	Descriptive Statistics (2)
02/04(M)	Probability Rules - McClave (3.2-6)
02/06(W)	Quiz #1
02/11M)	Bayes Rule – McClave (3.7)
02/13(W)	Quiz #2
02/18(M)	Discrete Probability Distributions - McClave (4.1-4)
02/20(W)	Quiz #3
02/25(M)	Review Quiz #4
02/27(W)	Exam #1
03/04(M) 03/06(W)	Continuous Probability Distributions - McClave (4.5-8)
03/11(M)	Sampling Distributions - McClave (5), Primer (2)
03/13(W)	Quiz #5
03/18(M)	Confidence Intervals - McClave (6)
03/20(W)	Quiz #6
03/25(M)	Hypothesis Testing - McClave (7), Primer (3)
03/27(W)	Quiz #7
4/01 – 4/05	SPRING BREAK – no classes
04/08(M)	Review, Quiz #8
04/10(W)	Exam #2
04/15(M) 04/17(W)	Inferences About Two Populations - McClave (8)
04/22(M)	Inference about Variances - McClave (6.7, 7.7, 8.6)
04/24(W)	Quiz #8
04/29(M)	Analysis of Categorical Data - McClave (10)
05/01(W)	Quiz #9

05/06(M)	Analysis of Categorical Data - McClave (10)
05/08(W)	Quiz #10

05/13(M) Review, Quiz #11

05/20(M) Final Exam 12:15 - 2:30 pm