

# Elementary Statistics

## San Diego Mesa College – Fall 2017

Math 119 CRN: 74127	Meets: Mon & Wed 3:55 – 5:20	Where: MS 420
INSTRUCTOR: Dr. William Torrez	Phone: 858-776-8887	

### HOW TO CONTACT ME

*The best way to contact me is through email: [wtorrez@cox.net](mailto:wtorrez@cox.net). You may use text messages or voicemails but my response time to these may vary. If you want to chat in person, you can stop by my office in MS 222J MW from 11:45 – 12:40. You can make an appointment by sending an email or calling my voicemail.*

*Here is what you will need to get started in the class:*

1. Text: Introductory Statistics, 10e, Neil A. Weiss. ISBN 978-0-13-427036-4 / PEARSON. The material in this class is covered at a rapid pace and you are required to read the text.
2. MYSTATLAB STATCRUNCH ACCESS CODE (NEW ONLY) / PEARSON. \$102 from [www.mystatlab.com](http://www.mystatlab.com). MYSTATLAB includes a copy of the e-text so you do not need to buy a textbook.
3. It is also advisable to have a scientific calculator handy. Popular models are TI-30XS, TI-36X Pro, etc. (these are available at Walmart, Target, etc. for around \$10-20).
4. Visit [blackboard.sdccd.com](http://blackboard.sdccd.com) for class resources and grades.

**RECOMMENDED:** A 3-ring binder to keep all notes and exams together, pencils, and a ruler.

### Important Dates

FALL 2017

Friday, Sep 1	Add/Drop Deadline
Monday, Sep 4	Labor Day (No Class)
Friday, Oct 27	Withdrawal Deadline
Friday, Nov 10	Veteran's Day (No Class)
Nov 20 - 24	Thanksgiving Break
Wednesday, Dec 13	Final Exam

Most days will be structured as follows:

- A short lecture of new topics including class discussion.
- Group activity focused on statistics applications used in real life.

We will spend time practicing problems and working together in groups. Use of laptops and tablets is encouraged. Cell phones are not allowed.

**GRADES:** Above 90% A; 80% - 89% B; 70% - 79% C; 60% - 69% D; Below 60% F. My top priority is helping you get the highest grade possible in this class. You will have many opportunities to show me your best work and earn points.

- Class Work (15%) will be assigned every class meeting and due the next day. Examples include worksheets, making study aids, and working on sample exams. Groups will be rotated so that everyone gets to work together.
- Practice Problems (10%) are available on MYSTATLAB with problems like what you will see on exams. Practice will help build your math skills. You will have some time to work on these problems in class.
- 4 Exams (50%) will be given to assess your individual knowledge. No makeup exams will be allowed. If you must miss an exam, notify me 7 days ahead of time and arrange to take the exam in office hours.
- A Final Exam (25%). You will feel prepared for this exam by attending class regularly and participating in group projects. The Final exam must be taken on the date listed in the schedule. No make-up final exams will be given.

*Feeling overwhelmed? Here is where to get help...*

- Come see me in office hours or send me an email message. Make an appointment to meet if my office hours conflict with your schedule. I am always willing to answer questions from any section of the book, even if we have already moved on to a new section. Drop a notecard on my desk if you want me to see a problem on the board.
- MYSTATLAB includes many helpful resources. YouTube is a great repository of video tutorials for using STATCRUNCH.
- Form a study group with your classmates. You will get a chance to meet everyone so you can find students with learning styles that match yours. Set up a time to meet each week to help one another.
- Mesa Tutoring and Computing Center (MT2C) offers **FREE** math tutoring for students. It is located on the fourth floor of the LRC (library). Hours: M-Th, 9:00 am - 8:00 pm, F & Sa 9:00 am - 2:00 pm.
- Students with disabilities who may need academic accommodations should notify me within the first two weeks of class. All information will be kept strictly confidential. More information on page 3.

*Here is all of the information that is required in my syllabus*

CATALOG COURSE DESCRIPTION: This course covers descriptive and inferential statistics. The descriptive portion analyzes data through graphs, measures of central tendency and spread. Other statistical practices utilize basic probability, binomial and normal distributions, estimation of population parameters, hypothesis testing, linear regression and correlation. Analytical reading and problem solving are required for success in this course. This course meets district G.E. requirements.

STUDENT LEARNING OUTCOMES: #1 - Organize, describe and interpret data sets in meaningful tables and graphs, and evaluate measures of central tendency and variation. #2 - Evaluate probabilities using the laws of probability, the standard normal distribution  $z$ ,  $t$ -distribution, and chi-square  $\chi^2$  - distribution. Find probabilities using the binomial distribution. Interpret probabilities given data represented by a histogram. Interpret probabilities given data represented by a boxplot. #3 - Use hypothesis testing to investigate claims involving one or two samples, utilizing the standard normal distribution  $z$ ,  $t$ -distribution,  $r$ -distribution, and chi-square  $\chi^2$  - distribution.

STUDENT LEARNING OBJECTIVES: Upon successful completion of the course the student will be able to:

1. Organize qualitative and quantitative data into meaningful charts and graphs.
2. Analyze data by comparing and contrasting graphs.
3. Evaluate measures of location, central tendency and variation.
4. Compute suitable regression models
5. Evaluate probabilities using a variety of computational methods.
6. Evaluate probabilities using a variety of distributions.
7. Apply the Central Limit Theorem to sampling distributions.
8. Use estimation techniques to determine confidence interval and sample size.
9. Perform and analyze hypothesis tests of means and proportions using both one-and two-sample data sets.
10. Evaluate correlation to determine the appropriateness of regression models.

**ATTENDANCE AND PARTICIPATION:** Attendance is required by Mesa College policy and you may be dropped from the course after the second unexcused absence. If you must miss class, please inform me with an e-mail or phone message. Tardiness and leaving class early may be treated as an unexcused absence. Absence due to illness is excused only with a doctor's note.

It is the student's responsibility to drop all classes in which he/she is no longer participating. It is the instructor's discretion to withdraw a student after the add/drop deadline (September 1) due to excessive absences.

Students who remain enrolled in the class beyond the published withdrawal deadline (October 27) will receive an evaluative letter grade in this class.

### **ACADEMIC INTEGRITY**

Students are expected to be honest and ethical at all times in the pursuit of academic goals. Students who are found to be in violation of Administrative Procedure 3100.3 Honest Academic Conduct, will receive a grade of zero on the assignment, quiz, or exam in question and may be referred for disciplinary action in accordance with Administrative Procedure 3100.2, Student Disciplinary Procedures.

### **STUDENT CODE OF CONDUCT**

- Students are expected to adhere to the Student Code of Conduct at all times. Students who violate the Student Code of Conduct may be removed from class by the faculty for the class meeting in which the behavior occurred, and the next class meeting.
- Make-up work will not be accepted during the removal from class.
- Incidents involving removal of a student from class will be reported to the college disciplinary officer for follow up.
- The Student Code of Conduct can be found in Board of Trustees Policy, BP 3100, Student Rights, Responsibilities and Administrative Due Process posted on the District website at: <http://www.sdccd.edu/public/district/policies/index.shtml>

### **DISABILITY ACCOMODATIONS**

- Students with disabilities who may need academic accommodations should notify me within the first two weeks of instruction. All information will be kept strictly confidential.
- Students with disabilities that need evacuation assistance during campus emergencies should meet with me as soon as possible to assure the health and safety of all students.
- I have made every effort to make this course accessible to all students, including students with disabilities. If you encounter a problem accessing anything in this course, please contact me immediately by email and also contact the college's Disability Support Programs and Services (DSPS) Office.
- For more information, you may contact the DSPS Office (14-405) or the website at <http://dsps.sdccd.edu/>

### **PROJECTED COURSE OUTLINE: (subject to change with prior notice)**

#### **FALL 2017**

8/21, 23	Week 1:	Chap 1: The Nature of Statistics
8/28, 30	Week 2:	Chap 2: Organizing Data
9/4, 6	Week 3:	Chap 3: Descriptive Measures
9/11, 13	Week 4:	Chap 4: Probability Concepts, Review, Exam #1
9/18, 20	Week 5:	Chap 5: Discrete Random Variables
9/25, 27	Week 6:	Chap 6: The Normal Distribution
10/2, 4	Week 7:	Chap 7: The Sampling Distribution of the Sample Mean, Review, Exam #2
10/9, 11	Week 8:	Chap 8: Confidence Intervals for One Population Mean
10/16, 18	Week 9:	Chap 9: Hypothesis Tests for One Population Mean
10/23, 25	Week 10:	Chap 10: Inference for Two Population Means, Review, Exam #3
10/30, 11/1	Week 11:	Chap 11: Inferences for Population Standard Deviations
11/6, 8	Week 12:	Chap 12: Inferences for Population Proportions,
11/13, 15	Week 13:	Chap 13: Chi-Square Procedures, Review, Exam #4
11/20 – 24		Thanksgiving Break
11/27, 29	Week 14:	Chap 14: Descriptive Methods in Regression and Correlation
12/4, 6	Week 15:	Chap 15: Inferential Methods in Regression and Correlation
12/11, 13	Week 16:	Chap 16: Analysis of Variance, Review, Final Exam