

Department of Science, Math and Engineering
Imperial Valley College
Imperial, CA 92251

MATH 119- ELEMENTARY STATISTICS
Syllabus
Fall 2013

Instructor: Juan **Andres** Noguez

Contact Information:

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- Office Hours: N/A

Course Information:

- Lectures: MWF 12:50pm-2:05pm
- Room: 2723
- CRN: 10661
- Credit Units: 4
- Websites: : <http://imperial.blackboard.com>, <http://www.mathxl.com>

Course Materials:

- Textbook: Essentials of Statistics 4th edition by Mario F. Triola (REQUIRED)
- MathXL (REQUIRED)
- TI-83 Plus (TI-84 is okay too) REQUIRED

Description:

Graphical representation of statistical data, calculations, and uses of various averages, measures of variability, introduction to probability, probability distributions, confidence intervals, sample size determination and hypothesis testing, ANOVA, linear regression and Chi-square analysis.

Prerequisites:

Math 091 with a minimum grade of C or better or appropriate placement.

STUDENT LEARNING OUTCOMES: Upon course completion, the successful student will have

acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

- Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic. (ILO2, ILO4)
- Apply their knowledge of statistical inference to conduct formal significance tests concerning single populations. (ILO2)
- Demonstrate their knowledge of basic descriptive statistics. (ILO2, ILO4)
- Apply techniques of linear modeling to explore the relationship between two numerical variables. (ILO2)

MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Distinguish the various ways of organizing, displaying, and measuring data.
2. Derive the numerical relationship that exists between bivariate data sets.
3. Demonstrate an understanding of the theory of probability and proficiency in solving problems of this nature.
4. Compute and interpret expected values and variance, and learn about the binomial distribution for discrete random variables.
5. Compute and interpret expected values and variance, and learn about the normal distribution or continuous random variables.
6. Examine the joint probability structure of two or more random variables and understand the limiting behavior of the sum of independent random variables as the number of the sample becomes larger.
7. Use the various types of distributions that are derived from the normal distribution.
8. Calculate and interpret confidence intervals for a population mean to show how probability connects to this type of statistical inference.
9. Use hypothesis testing as a formal means of distinguishing between probability distributions on the basis of random variables generated from one of the distributions.
10. Compare the means of the data from experiments involving more than two samples, including the single factor analysis of variance (ANOVA).
11. Fit a straight line to the given data in graphical form.
12. Make use of Chi-square distributions to analyze counts.

Calculator:

A TI-83/84 will be required for this class. You are NOT ALLOWED to share calculators during tests. **TI 83 plus calculators may be rented from the Math Lab, you will need to pay the rental fee at the Cashier's window (building 10, to the side of the Admissions Office), you will be given a receipt, which you'll bring to the math lab.**

Cell Phones:

Keep **CELL PHONES TURNED OFF** during class **AT ALL TIMES**. You are NOT ALLOWED to use a cell phone as a calculator during tests. Those who answer their cell phones during class will be asked to leave for the day.

Tips to Success:

This course moves rapidly covering the material equivalent to one year of math at the high school level, and meeting only twice per week. For every hour spent in class, you are expected to spend 2-3 hours outside of class reading the book, doing homework, and studying the material. It is critical that you read ahead and ask

questions. Avoid falling behind in the material, reading and homework. You cannot learn mathematics without doing the problems. If you fall behind it will be difficult to catch up. Stay organized, take good notes and read your notes after class. If you are having difficulty with the material, get help. You can get help from the IVC Math Lab or library tutoring center. Work with others outside of class, form a study group if possible. You are responsible for all material in assigned chapters and all material covered in lecture, even if you are absent, so find someone in class to make you copies of the notes & materials if you can not be in class.

Keeping Up: Don't let yourself fall behind. Sign up for free tutorial service offered by the **Math Lab room 2500**.

Homework: In mathematics, homework is crucial. Homework is assigned through **MathXL** and done online. See instructions on Blackboard. Homework assignments are due the day of the exams at 1pm. No late homework will be accepted.

Textbook: You are expected to read the scheduled material beforehand. The lecture will mainly consist of solving problems. The definitions are in your textbook, **READ THEM!** You are also expected to bring your textbook to every lecture.

Laptops: You are **not allowed to use your laptop during class time**. This also includes those who work on mathXL during lecture time. Homework is not meant to be done during lecture time those using their laptops will be asked to leave the classroom.

Tech Activities: There will be technology activities throughout the semester where you are required to use your TI-83. The assignment will be turned in at the end of class. People absent on 9/04 or 11/08 will be given a zero in the assignment.

Dropping: You will be dropped from this class if you miss the first day or if you miss three or more class sessions total. The last day to drop this class is November 9th 2013. After that date, I must give you a letter grade. It is your responsibility to drop, not mine.

DSP&S: Any student with a documented disability who may need educational accommodations should notify the Disabled Student Programs and Services (DSP&S) office as soon as possible. Room 2117 Health Sciences Building (760) 355-6312.

Test Days: People will be given the whole class time to complete the exam (1 hour and 15 minutes). You must arrive early on exam days, those who arrive late will NOT be given any extra time.

Grading: There will be 4 exams each worth 160 points and a final cumulative exam worth 160 points. Homework will be worth 100 points, technology activities will add up to a maximum of 50 points and the video project will be worth 50 points.

Extra Credit: There will be NO extra credit.

Make-up Exams: There will be NO make-up exams. If you miss a test you will receive a zero. There will be no make-up final exam; if you miss the final exam you will be given a zero.

Grading Policy

Exams (including final)	800 points
MathXL Homework	100 points
Technology Activities	50 points
Project	50 points
Total	1000 points

Grading Scale

90-100 %	A
80-89%	B
70-79 %	C
60-69 %	D
0-59 %	F

Academic Integrity is assumed and necessary. Disruptive students will be required to leave the class for the day. Continued disruptive behavior, cheating or plagiarism may result in severe academic penalty. See the college bulletin.

Math 119 Fall 2013 <i>Tentative</i> Schedule			
Date	Reading	Event	Notes
08/19	1.1 – 1.5		
08/21	2.1 – 2.3		
08/23	2.3 – 2.4		
08/26	3.2		
08/28	3.3		
08/30	3.4		
09/02	NO CLASS	Labor Day	
09/04	Technology Activity		
09/06	Test 1		
09/09	4.2		
09/11	4.3		
09/13	4.4		
09/16	4.5		
09/18	4.6		
09/20	5.2		

09/23	5.3		
09/25	5.4		
09/27	Test 2		
09/30	6.2		
10/02	6.3		
10/04	6.4		
10/07	6.5		
10/09	6.6		
10/11	7.2		
10/14	7.3		
10/16	7.4		
10/18	7.5		
10/21	Test 3		
10/23	8.2		
10/25	8.3		
10/28	8.3		
10/30	8.4		
11/01	8.4		
11/04	8.5		
11/06	8.5		
11/08	Technology Activity		
11/11	NO CLASS	Veteran's Day	
11/13	9.2		
11/15	9.3		
11/18	9.4		
11/20	Test 4		
11/22	10.2		
11/25	10.3		
11/27	11.3		
11/29	NO CLASS	Thanksgiving	
12/02	11.4		
12/04	PROJECTS DUE	Presentations	
12/06	FINAL EXAM		

The above schedule might change depending on the pace of the class; the only date that won't change is the final exam's date.

My Classroom Rules

1. There will be A LOT of homework and READING in this class, you are expected to spend 8-12 hours in this class (or more) to get your desired grade so **no whining** about the homework.
2. No talking during lecture. If you have a question and you are too shy to ask during class time, then ask me after class.
3. Disruptive students will be asked to leave for the day. If you are asked to leave please do so quietly.
4. No excuses, those absent on the day of an exam will receive a zero.
5. Do NOT pester your instructor with e-mails requesting your grade right after the exam. The exams will be graded, but it might take a couple of days for me to grade them.