# Math 119 Elementary Statistics Imperial Valley College Fall 2012 

Class Number: 10447 (4 credit units)
Room: 2728
MW $3: 40-5: 30 \mathrm{pm}$


| Keeping Up: | Don't let yourself fall behind. If you feel you are slipping, SEE ME. This is urgent. It is my goal and <br> that of the Imperial Valley College Math Dept. that you succeed. Sign up for free tutorial service <br> offered by the Math Lab room 2500 . |
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| Homework: | In mathematics, homework is crucial. Homework is assigned through MathXL and done online. See <br> the attached flyer. Please ask questions about the homework in class. |
| Labs: | There will be 4 lab sessions in the Math Lab room 2500 . These are not optional. They are part of the <br> course. Skipping labs will directly affect your grade. |
| Project: | There will be a team video project to present a hypothesis test and conclusion. If nobody on your <br> team has a cell phone capable of recording video, let me know and I will find you equipment. |
| Dropping: $\quad$You may be dropped from this class if you miss the first day or if you miss three or more class <br> sessions total. The last day to drop this class is Nov 10. After that date, I must give you a letter <br> grade. It is your responsibility to drop, not mine. |  |
| $\underline{\text { DSP\&S: }}$Any student with a documented disability who may need educational accommodations should notify <br> the Disabled Student Programs and Services (DSP\&S) office as soon as possible. Room 2117 <br> Health Sciences Building (760) 355-6312. |  |
| There will be 5 midterm tests, worth 100 points each. The lowest score of the midterm tests will be |  |
| dropped. There will be a comprehensive final exam worth 200 points. Your homework is worth 100 |  |

Grading Policy

| Midterm Tests | 400 points |
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| MathXL Homework | 100 points |
| Project | 100 points |
| Labs | 200 points |
| Final Exam | 200 points |
| Total | 1000 points |

Grading Scale

| $90-100 \%$ | $A$ |
| :--- | :--- |
| $80-89 \%$ | $B$ |
| $70-79 \%$ | $C$ |
| $60-69 \%$ | $D$ |
| $<60 \%$ | $F$ |

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.

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.

| Math 119 Fall 2012 Tentative Schedule |  |  |  |
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| Date | Text | Event | Notes |
| 08/20/12 | 1-2,1-3,1-4,1-5 |  | Introduction to Statistics |
| 08/22/12 | 2-2, 2-3,2-4,2-5 |  | Summarizing and Graphing Data |
| 08/27/12 | 3-2, 3-3, 3-4 |  | Statistics for Describing Data |
| 08/29/12 |  | Lab Rm 2500 | Measures |
| 09/03/12 |  | Holiday | Labor Day |
| 09/05/12 |  | Test 1 | Chapters 1, 2 and 3 |
| 09/10/12 | 4-1, 4-2 | Craps | Probability |
| 09/12/12 | 4-3, 4-4 |  | Addition Rule, Basic Multiplication Rule, Examples: Craps |
| 09/17/12 | 4-5,4-6,5-2 |  | Mult. Rule, Counting, Random Variables |
| 09/19/12 |  | Lab Rm 2500 | Discrete Probability Distributions |
| 09/24/12 | 5-3, 5-4 | Keno | Binomial Distribution, Poisson Distribution |
| 09/26/12 |  | Test 2 | Chapters 4 and 5 |
| 10/01/12 | 6-2, 6-3 |  | Introduction to Normal Distribution |
| 10/03/12 | 6-4, 6-5, 6-6 |  | Normal Distribution |
| 10/08/12 |  | Lab Rm 2500 | Normal Distribution |
| 10/10/12 | 7-1, 7-2, 7-3 |  | Estimates of proportions, means with $\sigma$ known |
| 10/15/12 | 7-3, 7-4 |  | Estimates of means with $\sigma$ unknown, variances |
| 10/17/12 |  | Test 3 | Chapters 6 and 7 |
| 10/22/12 | 8-1, 8-2 |  | Basics of Hypothesis Testing |
| 10/24/12 | 8-3, 8-4 |  | Hypothesis Testing of proportions, means with $\sigma$ known |
| 10/29/12 |  | Lab Rm 2500 | Hypothesis Testing |
| 10/31/12 | 8-5, 8-6 | Projects Assigned | Hypothesis Testing of means with $\sigma$ unknown, variances |
| 11/05/12 |  | Test 4 | Chapter 8 |
| 11/07/12 | 9-1, 9-2 |  | Inferences about two proportions |
| 11/12/12 |  | Holiday | Veterans Day |
| 11/14/12 | 9-3,9-4 |  | Inferences about two means, indep. and dep. |
| 11/19/12 | 10-1, 10-2, 10-3 |  | Linear Correlation and Regression |
| 11/21/12 | 10-3 |  | Regression |
| 11/26/12 | 11-3,11-4(12-2) |  | Contingency Tables, ANOVA |
| 11/28/12 |  | Test 5 | Chapters 9, 10-2, 10-3, 11-3, 11-4 (12-2) |
| 12/03/12 |  |  | Project Reports Review |
| 12/05/12 | Final Exam |  | Comprehensive Final |

## How to Register and Enroll in Your Course

Welcome to MathXL! Your instructor has set up a MathXL course for you.

The course name is: Math 119 Statistics F'12 3:40-5:30
It is based on this textbook: Triola: Elementary Statistics, 10e
To join this course, you need to register for MathXL and then enroll in the course.

## 1. Registering for MathXL

Before you begin, make sure you have the access code that comes with your MathXL Access Kit. If you don't have an access kit, you can buy the code online by clicking Buy Now at www.mathxl.com.

To register, go to the www.mathxl.com for MathXL, click the Register button, and then follow the instructions on the screen.

## 2. Enrolling in your instructor's course

After registering, log in to MathXL with your username and password. To enroll in this course, enter the following Course ID:
The Course ID for your course is: XL0Y-G1C7-101Y-03Y2

## Need more help?

To view a complete set of instructions on registering and enrolling, go to www.mathxl.com and visit the Tours page.

