## Basic Course Information

| Semester | Fall 2016 | Instructor's Name | David Rosas |
| :--- | :--- | :--- | :--- |
| Course Title \& \# | Math 119 | Instructor's Email | David.rosas@imperial.edu |
| CRN \# | $\mathbf{1 0 1 2 6}$ | Webpage (optional) | None |
| Room | $\mathbf{1 3 0 8}$ | Office (PT <br> Faculty:809) | 809 |
| Class Dates | $\mathbf{0 8 / 1 5 ~ t o ~ 1 2 / 0 9 ~}$ | Office Hours <br> (n/a for PT Faculty) | NA |
| Class Days | Tuesday and Thursday | Office Phone \# <br> (PT may use dept. <br> number) | 760-355-6155 |
| Class Times <br> Units | $\mathbf{6 : 3 0}$ to 8:35 | Who students should <br> contact if emergency <br> or other absence | E-mail me <br> or call Ofelia Medina 760-355- <br> 6155 <br> (Math Department Secretary) |

## Course 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.

## Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic
2. Students will apply their knowledge of statistical inference to conduct formal significance tests concerning single populations
3. Students will demonstrate their knowledge of basic descriptive statistics.
4. Students will apply techniques of linear modeling to explore the relationship between two numerical variables.

## Course Objectives

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

1. Distinguish 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 distributions for discrete random variables
5. Compute and interpret expected values and variance, and learn about the normal distribution for 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 samples 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
11. Fit a straight line to the given data in graphical form
12. Make use of Chi-square distributions to analyze counts

## Textbooks \& Other Resources or Links

1. Triola, Mario (2013). Elementary Statistics (Second California Edition). Pearson. ISBN 13: 1256989851
2. MathXL subscription. See the attached information

## Course Requirements and Instructional Methods

Material needed: Textbook, paper, pen, pencil, and TI-83 or TI-84 calculator. You may rent a TI-83 plus from the Math Lab for $\$ 10$ for the semester. Go first to the cashier in Bldg 10, then take your receipt to the Math Lab to get your calculator. You may use a TI-83 plus emulator, such as wabbitemu, with your cell phone during lecture. However, you WILL NOT BE ALLOWED TO USE YOUR CELL PHONE during a test. Any attempt to photograph your test or send a text during the test will result in your test being confiscated and a zero score given for that test.
Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

## Course Grading Based on Course Objectives

Exams: There will be three exams during the semester and a final exam on the last day.
Test 1: Chapters 1-3 (20\% of your grade)
Test 2: Chapters 6,8, and 9 ( $20 \%$ of your grade)
Test 3: Chapters 7, 10, 11 ( $20 \%$ of your grade)

Final Exam: Comprehensive including Chapter 4
( $20 \%$ of your grade)

Homework: There will be an assignment on every section of the chapter using Math XL. No extensions will be granted. Also, there will be a quiz at the end of class that will count as an assignment. You will receive a zero if you are not present during a quiz.
( $10 \%$ of your grade)

Project: A hypothesis test application
(10\% of your grade)

## Attendance

## Required language

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped (How many absences? ( $\qquad$ ).
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Don't be late to class.


## Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.


## Academic Honesty

- Plagiarism is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following:

- (a) plagiarism
- (b) copying or attempting to copy from others during an examination or on an assignment
- (c) communicating test information with another person during an examination
- (d) allowing others to do an assignment or portion of an assignment
- (e) use of a commercial term paper service


## Additional Help - Discretionary Section and Language

- Blackboard support center: http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543
- Learning Labs: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading \& Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- Library Services: There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.
- Forming Study Groups: You are encouraged to form study groups. It is the best way to master the material.


## Disabled Student Programs and Services (DSPS)

Required Language: Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP\&S) office as soon as possible. If you feel you need to be evaluated for educational accommodations, the DSP\&S office is located in Building 2100, telephone 760-355-6313.

## Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see http://www.imperial.edu/students/student-health-center/. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

## Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com_docman\&task=doc_download\&gid=4516\&Itemid=762

## Information Literacy

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/

## Anticipated Class Schedule / Calendar

Math 119-Statistic Pacing Guide Fall 2016

| Aug 16 <br> First Day of School 1.2 Statistical Thinking <br> 1.3 Types of Data | Aug 18 <br> 1.4 Critical Thinking <br> 1.5 Collecting Sample Data |
| :---: | :---: |
| Aug 23 <br> 2.2 Frequency Distributions <br> 2.3 Histograms | Aug 25 <br> 2.4 Statistical Graphics <br> 2.5 Critical thinking: Bad Graphs |
| Aug 29 <br> 3.2 Measures of Center | Sep 1 <br> 3.3 Measures of Variation |
| Sep 6 <br> 3.4 Measures of Relative Standing | Sep 8 <br> 3.4 Number Summary and Boxplots <br> Get Ready for Ch1-3 Test: What to expect |
| Sep 13 Chapters 1-3 Test | Sep 15 <br> We will study Chapter 4 at the end of the semester. <br> 6.2 The Standard Normal Distribution |
| Sep 20 <br> 6.3 Applications of the Standard Normal Distribution | Sep 22 <br> 6.4 Sampling Distributions of the Mean <br> 6.5 The Central Limit Theorem |
| Sep 27 <br> 6.5 Assessing Normality | Sep 29 <br> 8.2 Basics of Hypothesis Testing <br> 8.3 Testing a Claim About a Proportion |


| Oct 4 <br> 8.4 Testing a Claim About a Mean: s Known <br> 8.5 Testing a Claim About a Mean: s Not Known TOMORROW, 8/5, LAST DAY TO DROP | Oct 6 8.6 Testing a Claim About Variation |
| :---: | :---: |
| Oct 11 <br> 9.2 Inferences About Two Proportions <br> 9.3 Inferences About Two Means: Independent Samples | Oct 13 <br> 9.4 Inferences from Dependent Samples Get Ready for Chapters 6, 8, and 9 Test |
| Oct 18 Chapters 6, 8, and 9 Test | Oct 20 <br> 11.2 Goodness of Fit <br> 11.3 Contingency Tables <br> ASSIGN PROJECT |
| Oct 25 <br> 11.4 Analysis of Variance <br> 7.2 Estimating a Population Proportion | Oct 27 <br> 7.3 Estimating a Population Mean: s Known <br> 7.4 Estimating a Population Mean: s Not Known |
| Nov 1 10.2 Correlation | Nov 3 10.3 Regression |
| Nov 8 <br> 0.4 Variation and Prediction Intervals 10.5 Rank Correlation <br> Get Ready for Chapters 7, 10 and 11 Test | Nov 10 Chapters 7, 10 and 11 Test |
| Nov 15 <br> 4.2 Basic Concepts of Probability <br> 4.3 The Addition Rule <br> PROJECT DUE | Nov 17 <br> 4.4 The Multiplication Rule |
| Nov 22 <br> THANKSGIVING BREAK-NO SCHOOL | Nov 24 THANKSGIVING BREAK-NO SCHOOL |
| Nov 29 <br> 4.5 The Multiplication Rule: Complements and Conditional Probability | Dec 1 Review for Final Exam |
| Dec 6 Review for Final Exam | Dec 8 <br> FINAL EXAM |
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## MathXL®

## How to Register and Enroll in Your Course

> Welcome to Math XLI Your instructor has set up a MathXL course for you.
> The course name is: Math 119 Fall 16
> It is based on this textbook: Triola: Elementary Statistics, Second Califomia Edition
> To join this course, you need to register for Math XL 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.
To register or buy access, go to www.mathxl.com, click the Student button in the Register section, and then follow the instructions on the screen.

## 2. Enrolling in your instructor's course

After registering, log in to Math XL with your username and password. To enroll in this course, enter the following Course ID:

## The Course ID for your course is: XL2F-71YG-9020-7DI2

Link: www.mathxl.com
If you want to copy and paste the course ID Number: XL2F71YG90207DI2

