Basic Course Information

Semester:	**Spring 2015**	Instructor Name:	**Richard McGowan**
Course Title & #:	**Elementary Statistics, MATH 119**	Email:	**richard.mcgowan@imperial.edu**
CRN #:	**20119**	Webpage (optional):	
Classroom:	**2722**	Office #:	**N/A**
Class Dates:	**February 13 – June 12**	Office Hours:	**N/A**
Class Days:	**MWF**	Office Phone #:	**760-355-6155**
Class Times:	**8:00 - 9:15 AM**	Emergency Contact:	
Units:	**4**		

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

1. Determine and interpret a confidence interval for a population mean.
2. Apply statistical inference to conduct formal significance tests concerning single populations.
3. Demonstrate the ability to use technology in computing and interpreting basic descriptive or inferential statistics.
4. Apply techniques of linear modeling to explore the relationship between two numerical variables.

Course Objectives

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.

Textbooks & Other Resources or Links

I will be providing my own notes for about the first half of the course.
Triola, Mario (2013). Elementary Statistics (Second California Edition). Pearson.ISBN10: 1-256-93644-8.ISBN 13: 1-256-93644-2.
A TI-83 or TI-84 Graphing Calculator. A TI-83 can be rented at the Math Lab for $10 (Pay at the cashier and bring your receipt to the math lab). Go as soon as possible since there is a limited number of calculators.

Course Requirements and Instructional Methods

Two hours of out-of-class work per hour of class time can be expected for this course. The instructor will be providing printed notes for the first half of the course. We will go over homework in class. Homework will not be collected, but homework is very important to doing well.

Course Grading Based on Course Objectives

Exams 70%, Final Exam 30%. The lowest exam score will, other than the final exam will be dropped. There will be four exams and a final exam, one of which will be take-home. All exams are open book, but cell-phones must be turned off and put away. Students will find that having an open book may help with some lapses in memory; it does not help if the student has not done the homework and does not know the material.

Attendance

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. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

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. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- 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.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting 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 "cite a source" correctly, 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 that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing 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 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) using a commercial term paper service.

Academic Senate (Oct/2014)

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **Blackboard Support Site.** The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.
- **Library Services**. There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

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. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center**. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District and El Centro Regional Center provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6310 in Room 2109 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC Mental Health Counseling Services at 760-355-6196 in Room 2109 for more information.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 Feb. 13 –17	Review of Fractions Sets	 Lectures 1 and 2
Week 2 Feb. 20 - 24	Sets and Counting	 Lectures 2 and 3
Week 3 Feb. 27 – March 3	Probability Probability Distributions	 Lectures 4 and 5
Week 4 March 6- 10	Binomial Distribution Review and Exam	Lecture 6 Exam
Week 5 March 13 - 17	Probability and Statistics Descriptive Statistics-I	 Lectures 7 and 8
Week 6 March 20 - 24	Descriptive Statistics-II Review and Take Home Exam	 Lectures 8 and 9
Week 7 March 27 – 31	Continuous Distributions Normal Distribution, Central Limit Theorem	 Lectures 10 and 11
Week 8 April 3 - 7	Estimating Parameters	 Chapter 7
Week 9 April 10 - 14	Hypothesis Testing	 Chapter 8
Week 10 April 17 - 21	Spring Break	
Week 11 April 24 – 28	Hypothesis Testing and Comparisons	 Chapters 8 and 9
Week 12 May 1 - 5	Comparisons Review and Exam	 Chapter 9
Week 13 May 8 - 12	Correlation and Regression	 Chapter 10-1 to 10-3
Week 14 May 15 - 19	Correlation and Regression	 Chapter 10-4, 10-6
Week 15 May 22-26	Goodness-of-Fit	Chapter 11
Week 16 May 29 – June 2	Review and Exam ANOVA	Exam Chapter 12-2
Week 17 June 5 - 9	Review Final Exam	Review Final Exam

*****Tentative, subject to change without prior notice*****