Basic Course Information

Semester	**Fall 2014**	Instructor Name	**Allyn Leon**
Course Title & #	**Elementary Statistics, Math 119**	Email	**allyn.leon@imperial.edu**
CRN #	**10432, 10433, & 10913**	Webpage	**http://imperial.blackboard.com** **http://www.mathxl.com**
Room	**N/A (only midterm and final)**	Office	**2760**
Class Dates	**08/18/2014 - 12/08/2014**	Office Hours	**Mon/Wed 12:50 - 1:20** **Tues/Thurs 10:30 - 12:00**
Class Days	**N/A (only midterm and final)**	Office Phone #	**760-355-6523**
Class Times	**N/A (only midterm and final)**	Office contact if student will be out or emergency	**Send me an email OR leave a message on my office phone.**
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. Students will learn to use technology to find confidence intervals, test statistics, regression lines, and to produce graphics. This course also provides supervised practice in the appropriate use of technology designed to assist students in calculations required in beginning statistics. (CSU, UC)

Student Learning Outcomes

By the end of this course, you will be able to (1) identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic, (2) demonstrate your knowledge of basic descriptive statistics, (3) apply your knowledge of statistical inference to conduct formal significance tests concerning single populations, and (4) apply techniques of linear modeling to explore the relationship between two numerical variables.

Course Objectives

Through various activities and assessments:
1. The student will distinguish the various ways of organizing, displaying, and measuring data.
2. The student will derive the numerical relationship that exists between bivariate data sets.
3. The student will demonstrate an understanding of the theory of probability and proficiency in solving problems of this nature.
4. The student will compute and interpret expected values and variance, and learn about the binomial distribution for discrete random variables.
5. The student will compute and interpret expected values and variance, and learn about the normal distribution for continuous random variables.
6. The student will 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. The student will use the various types of distributions that are derived from the normal distribution.
8. The student will calculate and interpret confidence intervals for a population mean to show how probability connects to this type of statistical inference.
9. The student will 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. The student will compare the means of the data from experiments involving more than two samples, including the single factor analysis of variance (ANOVA).
11. The student will fit a straight line to the given data in graphical form.
12. The student will make use of Chi-square distributions to analyze counts.

Textbooks & Other Resources or Links

1. **Textbook:** Elementary Statistics, 2nd CA Edition, by Mario Triola, Pearson Publisher. You will have three options for the textbook. I recommend the used option.
    a. **Option 1:** Purchase the textbook new (bundled with MathXL).
    b. **Option 2:** You may purchase the book used and buy MathXL access separately.
    c. **Option 3:** You may choose to not buy the physical textbook, and just purchase MathXL access. You will have access to the textbook pages through the homework.
    d. **Option 4:** Just buy the book used without MathXL. MathXL is **OPTIONAL**.
2. **Calculator:** A basic calculator, like a TI-30 (costs around $10) is recommended, or you can go with a graphing calculator, like the TI-83 or TI-84; it really depends on what other math or science classes you plan on taking later on.
3. MathXL Stuff: XL1K-K1I1-7020-5DI2

Important Dates
Last day to add the class: **Saturday 08/30/2014**
Last day to withdraw from the class with a "W": **Saturday 11/08/2014**
Midterm: **6pm to 8pm in Room 2734 on Monday 10/13/2014**
Final: **6pm to 8pm in Room 2734 on Monday 12/08/2014**

Course Requirements and Instructional Methods
Homework: There will be *practice exercises* assigned from every section that we cover. A list of practice exercises will be included for each week (see the Weekly Assignments folder in Blackboard). A master list will also be available. These are not to turn in, but for **practice**.

Quizzes: There will be thirteen (13) short quizzes given throughout the semester, to be taken online through Blackboard. These will be accessible through the Weekly Assignments folder. Quizzes have no official due date, and will remain open throughout the semester, but... if you have not completed a quiz by the end of the week that it is assigned, don't be surprised if it counts against you until you complete it! At the end of the semester the 3 lowest quiz scores will be dropped and the top 10 will count.

Tests: There will be four (4) tests during the semester. Test 1 and Test 3 will take place online within Blackboard. Test 2 is the midterm and Test 4 is the final. Tests 2 and 4 are in person (see the schedule at the end of this document for dates/times). **There will be no make-up exams**. If you miss any exam, it will be recorded as a zero, and **the final exam percentage** will be used to replace that score at the end of the semester. If you miss the final, it will be recorded as a zero.

Tech Activities: There will be a series of four (4) activities in which we use Minitab, Excel, Fathom, or a combination of technology resources to go through statistical computations. These activities will be carried out in groups of 3-4 students, and work will be summarized within Blackboard (there will be instructions on how to do this).

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. **Do not expect this class to be "cake." It will take a lot of reading, watching videos, working problems out, and asking for help.**

Course Grading Based on Course Objectives
Your grade will be calculated based on the following items:

10 Quizzes @ 20 points each	200 points	~20%
4 Group Activities @ 50 points each	200 points	~20%
Test 1 & Test 3 @ 100 points each	200 points	~20%
Test 2 & Test 4 (Midterm & Final) @ 200 points each	400 points	~40%
Total	*1000 points*	*100%*

Your final grade will be based on the following points and percentages:

90% to 100%	900-1000 points	A
80% to 89%	800-899 points	B
70% to 79%	700-799 points	C
60% to 69%	600-699 points	D
Below 60%	Below 600 points	F

The **Blackboard gradebook** is where you want to go to check your grades and progress. You can do this at any time to get an idea of how you are doing in the class.

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: Please keep your cell phones on silent and/or vibrate while we're in class.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. For us this really only applies to the midterm and final. Water only, please.
- 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. While this may seem kind of silly for an online class, just make sure that you are not disruptive in the discussion forums and other online communication.
- 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
- 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.

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 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. 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

Week #	Week of	Readings & Assignments	Quizzes & Tests
1	08/18	Introduction	Quiz 1 (syllabus)
2	08/25	Chapter 1 (Introduction to Statistics)	Quiz 2 (Chapter 1)
3	09/01	Chapter 2 (Summarizing and Graphing)	Quiz 3 (Chapter 2)
4	09/08	Chapter 3 (Statistics for Describing, Exploring, and Comparing Data)	Quiz 4 (Chapter 3)
5	09/15	**Tech Activity 2**	**Test 1 Online (Chapters 1-3)**
6	09/22	Chapter 4 (Probability and Counting)	Quiz 5 (Chapter 4)
7	09/29	Chapter 5 (Discrete Probability Distributions)	Quiz 6 (Chapter 5)
8	10/06	Chapter 6 (Normal Probability Distributions)	Quiz 7 (Chapter 6)
9	10/13	**Tech Activity 2**	**Test 2 from 6pm to 8pm in Room 2734 on Monday 10/13/2014**
10	10/20	Chapter 7 (Estimates and Sample Sizes)	Quiz 8 (Chapter 7)
11	10/27	Chapter 8 (Hypothesis Testing)	Quiz 9 (Chapter 8)
12	11/03	Chapter 9 (Inferences from Two Samples)	Quiz 10 (Chapter 9)
13	11/10	Chapter 10 (Correlation and Regression) **Tech Activity 3**	Quiz 11 (Chapter 10) **Test 3 Online (Chapters 7-9)**
14	11/17	Chapter 11 (Goodness-of-Fit and Contingency Tables)	Quiz 12 (Chapter 11)
15	11/24	**Thanksgiving Break**	
16	12/01	Chapter 12 (Analysis of Variance)	Quiz 13 (Chapter 12)
17	12/08	**Tech Activity 4**	**Test 4 from 6pm to 8pm in Room 2734 on Monday 12/08/2014**

Tips for Success

This is an online class, and the material will start as soon as the semester does. Since there are no class meetings, it is not the same as a face to face class, in which you sit in a desk, and the teacher goes over material, step by step, in front of you. There is a lot of individual reading and practice that takes place, and there will be something due almost every week. Here are a few things that may help you navigate through the class and succeed:

1. **Pace yourself, and keep up.** Take a look at the anticipated class schedule of topics, readings, assignments, and tests above. This is a guide to help you keep pace with course materials. In a face to face class, these are the sections that I would cover with a live class.
2. **Weekly Assignments.** Within Blackboard, there will be a link (on the left menu) named "Weekly Assignments." This should be your starting point every week. It will tell you what to focus on, what sections to read and watch videos for, and what tests/assignments are coming up.
3. **Watch the videos** that are available for each section that is supposed to be covered. Within Blackboard there will be at least one (1) video, if not more, to watch. Please watch these. Some are created by the textbook author and some by me. Watch them all...click on the video link to watch..
4. **Practice.** Start the suggested practice as early as possible during the week. Even though the homework out of the book is not "required," your quizzes and tests will be based on what you learn from the videos and practice from the textbook. Do not wait until the day or week before a test to start; this is a recipe for disaster!
5. **Form a study group.** Having a group of people that you discuss and work out problems with is a great way to learn.
6. **Ask questions.** There will be an area in Blackboard where you can ask questions about different sections and topics in the course. Do not be afraid to ask! If you don't ask, you won't get an answer, and chances are, there are others that are also wondering the same thing. If you feel that you cannot ask the question in "public," there is also email.