Basic Course Information

Semester	**Summer 2017**	Instructor Name	**Allyn Leon**
Course Title & #	**Elementary Statistics, Math 119**	Email	**allyn.leon@imperial.edu**
CRN #	**30140 (online)**	Webpage	**http://imperial.instructure.com**
Room	**N/A**	Office	**2760.2**
Class Dates	**06/19/2017 - 07/27/2017**	Office Hours	
Class Days	**N/A**	Office Phone #	**760-355-6523**
Class Times	**N/A**	MIDTERM	**Room 2727 on Monday 7/10/17**
Units	**4**	FINAL	**Room 2727 on Thursday 7/27/17**

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, given a problem or a set of problems, the student will demonstrate problem solving strategies by identifying an appropriate method to solve a problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation.

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:** Introductory Statistics by Illowsky and Dean, OpenStax Publisher.
    a. **Online:** You can view the book online at this url
       http://cnx.org/contents/MBiUQmmY@18.11:2T34_25K@11/Introduction
    b. **Download PDF:** The book will also be available as a PDF download (in Canvas).

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. You NEED a calculator of some sort to do the work on the tests. You will **NOT** be allowed to use Cell Phone calculators on the Midterm or the Final.

Important Dates
Last day to add the class: **Wednesday 06/21/2017**
Last day to withdraw from the class with a "W": **Tuesday 07/18/2017**
Midterm: **Room 2727 on Monday 07/10/2017**
Final: **Room 2727 on Thursday 07/27/2017**
Video Orientation: Course Information (https://youtu.be/A3dYyU7-M6M)
Video Orientation: Canvas (https://youtu.be/r8Ed2UcTJ5o)
Video Orientation: Online Textbook (https://youtu.be/XtIlj2hjIrI)

Course Requirements and Instructional Methods
Practice: There will be *exercises* assigned from every section that we cover **FOR PRACTICE ONLY**. You will not turn these in. These practice exercises can be completed out of the textbook.

Online Homework Assignments: There will be 15 online homework assignments to be completed in Canvas. These assignments will have between 10 and 30 questions and will usually cover one chapter/module, although some of the later assignments may cover more than one chapter. The assignments will have specific due dates; once the due date passes for an assignment you will not be able to make it up, so make sure you finish the homework on time!

Technology Activities: There will be 3 assignments involving the use of technology (special software for computing statistics, such as Minitab or Minitab Express). Think of these like mini projects. More information will be provided through Canvas.

On-Campus Tests: The Midterm and Final will take place according to the schedule below (also see IMPORTANT DATES). On-Campus tests will have between 10 and 20 questions, part multiple choice and part free response. You will be allowed to bring one sheet of notes, **HANDWRITTEN**, on both sides, and you should definitely bring a calculator. **There will be NO make-up exams**.

Missed Exams: If you miss the midterm 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.

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
Your grade will be calculated based on the following items:

15 Online Homework Assignments at 10 points each	150 points	~18.75%
3 Technology Activities @ 50 points each	150 points	~18.75%
Midterm @ 200 points	200 points	~25.00%
Final @ 300 points	300 points	~37.50%
Total	*800 points*	*100.00%*

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

90% to 100%	720-800 points	A
80% to 89%	640-719 points	B
70% to 79%	560-639 points	C
60% to 69%	480-559 points	D
Below 60%	Below 480 points	F

The **Canvas 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. It's even more extreme in the winter or summer.
- 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
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Water only, please (for Midterm and Final).
- 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. Disruptions in an online class include being rude and inappropriate in a discussion board, chat, or email.
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend.

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
- 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 full time 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/

Tips for Success
1. **Read the syllabus.** This is your primary source for information about the class. Most of your questions about points, tests, dates, locations, and procedures will be in this document. Read it!
2. **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. Come to class, take notes, and complete the quizzes and other assignments.
3. **Watch the videos** that are available for each cluster of topics that is supposed to be covered. I will have some supplementary videos in Canvas for you to watch.
4. **Practice.** Start the homework as early as possible during the week. Reading ahead and trying the problems before class will increase your exposure to the material.
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.** Part of learning anything, including math, is not understanding, and asking questions so that the material makes sense. If something in class does not make sense, ask.

Anticipated Class Schedule / Calendar

Week #	Date	Readings & Assignments	Tests/Homework/Tech Activities
1	06/19	Introduction/Orientation	
	06/20	Sections 1.1, 1.2, 1.3, & 1.4	
	06/21	Sections 1.5, 2.1, 2.2, & 2.3	
	06/22	Sections 2.4, 2.5, 2.6, & 2.7	
2	06/26	Sections 2.8, 3.1, 3.2, & 3.3	
	06/27	Sections 3.4, 3.5, 4.1, & 4.2	
	06/28	Sections 4.2 & 4.3	
	06/29	Counting Techniques	
3	07/03	Sections 5.1, 5.2 & 6.1	
	07/04	**No Class (Independence Day)**	**No Class (Independence Day)**
	07/05	Sections 6.2 & 7.1	
	07/06	Review for Midterm	
4	07/10	Midterm	
	07/11	Sections 8.1 & 8.2	**Tech Activity 1 Due**
	07/12	Sections 8.3 & 9.1	
	07/13	Sections 9.2 & 9.3	
5	07/17	Sections 9.4 & 9.5	
	07/18	Sections 9.6 & 10.1	**Tech Activity 2 Due**
	07/19	Sections 10.2 & 10.3	
	07/20	Sections 10.4 & 12.1	
6	07/24	Sections 12.2 & 12.3	
	07/25	Sections 12.4, 12.5, & 13.1	**Tech Activity 3 Due**
	07/26	Review for Final	
	07/27	Final Exam	**Final (Chapters 1-13)**

Extremely important! If you do not complete Homework 0 (based on the syllabus) by the end of the day on Wednesday 06/21/2017, you will be dropped from the class! This is absolutely necessary.