Basic Course Information

Semester:	**Spring 2016**	Instructor Name:	**Jeff Burt**
Course Title & #:	**Elementary Statistics 119**	Email:	**jeff.burt@imperial.edu**
CRN #:	**20120**	Webpage (optional):	
Classroom:	**2722**	Office #:	**2765**
Class Dates:	**2/16/16 – 06/10/16** **Drop date: 5/14/16**	Office Hours:	**M /W 11:00 – 12:30pm** **T/Th 12:30-1:00pm**
Class Days:	**Mon./Wed./Fri.**	Office Phone #:	**(760) 355 - 6489**
Class Times:	**9:35am – 10:50am**	Emergency Contact:	**Department Secretary** **(760)355-6155**
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

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

1. Determine and interpret a confidence interval for a population mean. (ILO2, ILO4)

2. Apply statistical inference to conduct formal significance tests concerning single populations. (ILO2)

3. Demonstrate the ability to use technology in computing and interpreting basic descriptive or inferential statistics. (ILO2, ILO4)

4. Apply techniques of linear modeling to explore the relationship between two numerical variables. (ILO2)

Course Objectives

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.

Textbooks & Other Resources or Links

The text book is Mandatory
1. Textbook: Elementary Statistics, 2nd CA Edition, by Triola, Pearson Publisher. You have several options.
    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

2. Scientific/Graphic Calculator (Recommended/Optional TI 30X IIS/TI 83, 84+, NSpire). You will not be allowed to use cell phone calculators on exams.

3. Access to Math XL is required for homework.

Course Requirements and Instructional Methods

Required Materials: You will need the textbook along with a writing utensil, paper for notes, and access to MathXL. I prefer you to use pencil, but a pen would work too. In a pinch you could use a crayon, quill, marker, or pretty much anything. Chisels and stone are discouraged but left to the student's discretion.

The goal of this course is for you to gain the necessary skills and knowledge to do well, and improve your mathematical abilities, so you are able to succeed in future courses and attain your educational goals. My responsibility is to help you in any way I can to accomplish these goals, however it is your responsibility to be committed to your own success and keep up with the pace of the class. To do so you need to complete assignments on time and **please** ask questions when you have them.

Homework will be completed in the MathXL program and on paper. There will be four homework assignments. Each assignment is due before the test that covers that material.

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. This means you should plan on 4 hours of class time, plus an **additional 8 hours each week** for working outside of class. This means you should spend at least 12 hours working on math each week.

Course Rules:
1) Late work is not accepted. If you are going to be gone, contact me **before** the absence to make arraignments.
2) There are **no** make-up exams.
3) It is your responsibility to drop or withdraw the class. Failure to do so will result in a regular grade (most probably an F).
4) Regular attendance is recommended and expected. The instructor can drop you from the class if you have more than the allowed number of absences.
5) **You need to ask questions** whenever you have them. If not in class, please come to my office during office hours, call me, email me, go to the math lab, Google it, YouTube it, etc.
6) It is your responsibility to make up the work you missed if you are absent. I highly recommend finding someone else to copy notes and material from that were covered in your absence.

Course Grading Based on Course Objectives

There will be 5 in class exams, worth 100 points each. The final is comprehensive and is also worth 100 points. There are **no make-ups** for the exam or final. Plan to be here for the exam dates in the schedule, but also note that those dates can change, so make sure you are paying attention and staying up to date. Any missed exam will result in the grade of a '0'. Your lowest exam score will be replaced with the average of your homework scores at the end of the semester. This can only be done once and does not apply to the final exam.

There will be pop quizzes throughout the semester and the average score of them will be worth 50 points.

There will be 5 homework assignments each worth 20 points. Each assignment is due before the test covering the same material (i.e. the chapter 2 homework is due before the chapter 2 Exam). They will be graded as follows:

100% - 80% = 20 points, 70% - 79% = 15 points, 60% - 69% = 10 points, 50% - 59% = 5 points, 40% - 49% = 3 points, Less than 40% correct = 0 points.

Grading: You need **at least 525** combined points for a 'C' grade. It is broken down as follows

Homework (in MathXL)	100 points
Quizzes	50 points
Exams	500 points
Final	100 points
Total	750 points

So that means every 75 points is a letter grate. 750-675 = A; 674-600 = B; 599- 525 = C, 524 – 450 = D, 449 – 0 = F

Attendance, class participation and a subjective instructor's interpretation of work may be used in assigning a final grade to borderline cases.

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.
- It is your responsibility to drop before the W deadline. (May 14, 2016)

Classroom Etiquette

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor. If it becomes a problem you will be asked to leave.

- 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. Please don't disrupt the class. It is a waste of everyone's time, especially your own.
- 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

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 (if for a test, it will not be replaced by the average homework score), 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, **this includes using cell phones on tests**; (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.

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

	Day 1	Day 2	Day 3
Week 1 Feb. 15-20		1.2, 1.3	1.4
Week 2 Feb. 22-27	2.2, 2.3	2.4	3.2, 3.3, 3.4
Week 3 Feb. 29 – March 5	3.2, 3.3, 3.4	Test 1	4.1
Week 4 March 7-12	4.2	4.3	4.4, 4.5
Week 5 March 14-19	4.6	5.1, 5.2	5.3, 5.4
Week 6 March 21-26	Lab on Sampling	Review	Exam 2
Week 7 March 28 - April 2	Holiday	Holiday	Holiday
Week 8 April 4 – 9	6.1, 6.2	6.2, 6.3	6.4
Week 9 April 11-16	6.5	6.5, 6.6	Lab on Normal Distributions
Week 10 April 18-23	7.1, 7.2	7.3	7.4
Week 11 April 25-30	Exam 3	8.1, 8.2	8.2
Week 12 May 2-7	8.3	8.4	Lab on Hypothesis Testing
Week 13 May 9-14	8.5	Exam 4	9.1, 9.2
Week 14 May 16-21	9.3	9.4	Review
Week 15 May 23-28	10.1	10.2	10.3
Week 16 May 30 – June 4	11.3	12.2	Exam 5
Week 17 June 6- 11	Review	Final Exam part 1	Final Exam part 2

Tentative, subject to change without prior notice