IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Spring 2024**	Instructor Name:	**Mr. Voldman**
Course Title & #:	**Math 119-Elementary Statistics**	Email:	**alex.voldman@imperial.edu**
CRN #:	**10771**	Webpage (optional):	
Classroom:	**Online**	Office #:	**2764**
Class Dates:	**08/12/24-12/10/24**	Office Hours:	**MW 10:05-11:05am on campus, TTH 10-11am online-zoom**
Class Days:	**N/A**	Office Phone #:	**760-3556299(only via e-mail)**
Class Times:	**N/A**	Emergency Contact:	**760-355-6155, 760-355-6201 Division Secretary**
Units:	**4.625**	Class Format:	**Online**

Course Description

The use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; and supervised use and practice in the application of technology for statistical analysis including the production of graphics, finding confidence intervals, test statistics, and regression lines, as well as the interpretation of the relevance of the statistical findings; Probability Theory, such as counting principles, conditional probability and the Poisson distribution. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. (C-ID MATH 110) (CSU/UC)

Course Prerequisite(s) and/or Corequisite(s)

Appropriate placement as defined by AB705 or, MATH 098 or MATH 091 with a grade of "C" or better

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. Demonstrate problem solving strategies by identifying an appropriate method to solve a given 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. This outcome will be assessed through selected exercises on exams throughout the semester. (ILO1, ILO2)

Course Objectives

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

1. Distinguish among different scales of measurement and their implications.
2. Interpret data displayed in tables and graphically.
3. Apply concepts of sample space and probability.

4. Calculate measures of central tendency and variation for a given data set.
5. Identify the standard methods of obtaining data and identify advantages and disadvantages of each.
6. Calculate the mean and variance of a discrete distribution.
7. Calculate probabilities using normal and t-distributions.
8. Distinguish the difference between sample and population distributions and analyze the role played by the Central Limit Theorem.
9. Construct and interpret confidence intervals.
10. Determine and interpret levels of statistical significance including p-values.
11. Interpret the output of a technology-based statistical analysis.
12. Identify the basic concept of hypothesis testing including Type I and II errors.
13. Formulate hypothesis tests involving samples from one and two populations.
14. Select the appropriate technique for testing a hypothesis and interpret the result.
15. Use linear regression and ANOVA analysis for estimation and inference and interpret the associated statistics.
16. Make use of Chi-square distributions to analyze counts.
17. Use appropriate statistical techniques to analyze and interpret applications based on data from disciplines including business, social sciences, psychology, life science, health science, and education.
18. Apply concepts of probability theory, such as counting principles, conditional probability, and the Poisson distribution.

Textbooks & Other Resources or Links

Author(s): Triola, Mario. Elementary Statistics Using Excel 7th Edition Textbook ISBN-13: 9780136937432

Calculator: A basic calculator, like a TI-30 is recommended, or the TI-83 or TI-84, and there are also various apps that you can use instead. You need a calculator to do the work on the tests.

Course Requirements and Instructional Methods

Homework
Homework is done using MyMathLab Statistics. MyMathLab Statistics code is **voldman50203.** Please refer to webpage: (https://mlm.pearson.com/northamerica/) for assignments and deadlines as well as registration.
Discussions
You will need to log into Canvas, each module has a discussion activity. Participation in the discussion in Canvas is mandatory and will be assessed. Students are expected to be ready for all class discussions.
Projects
There will be five (5) short projects that may involve the use of technology (such as Excel/XLSTAT). Projects will be provided through Canvas.
Exams
Purpose: To review the material introduced in class and to evaluate your understanding of the material covered in the course.
There will be four exams and a final to be taken on **Canvas**. Please see the tentative schedule (Syllabus or Canvas) for the dates.
There will be no make-up exams. If you miss one exam, the final exam score will be used in its place.
Final Exam
Final: The final exam is mandatory for all students.

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.

What if I need to borrow technology or access to WIFI?

1. To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: https://imperial.edu/students/student-equity-and-achievement/

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Course Grading Based on Course Objectives

Grade Distribution

Homework	Canvas Discussions	Projects	Exams	Final
10 homework activities @ 20 points each	10 canvas discussions @ 10 points	5 projects @ 40 points each	3 exams @ 100 points each	Final 200 points

Canvas Discussions	**10%**
Homework	**10%**
Projects	**10%**
Exams	**40%**
Final	**30%**

Grading Scale:

A	B	C	D	F
(90-100%)	(80-80%)	(70-79%)	(60-69%)	(0-59%)

Course Policies

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 owned 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.

Online Netiquette

***[Required Information for web-enhanced, hybrid and online courses**: Describe your policies regarding netiquette. The below is suggested language and may be modified for your course.]*

- 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

Other Course Information

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. When campus is open, the DSP&S

office is in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodation.

Student Counseling and Health Services

[Required language.] 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, but you must make an appointment. In addition, Pioneers Memorial Healthcare District provides basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128, or when campus reopens, visit Room 1536 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 for appointments, or when campus reopens visit Room 1536, for more information.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and /or Topic	Assignment Dates
Week 1	Introduction Getting Started-Module 0, Sampling and Data, Module 1	Orientation Syllabus Quiz Due 9am, 08/17
Week 2	Sampling and Data, Module 1	Discussion 1, Project 1, and Homework 1
Week 3	Descriptive Statistics, Module 2	Discussion 2, Homework 2
Week 4	Exam 1	Exam 1
Week 5	Probability, Part 1, Module 3	Discussion 3, Homework 3
Week 6	Probability, Part 2, Module 4	Discussion 4, Project 2, Homework 4
Week 7	Exam 2	Exam 2
Week 8	Discrete Probability Distributions, Module 5	Discussion 5, Homework 5
Week 9	Normal Probability Distributions, Module 6	Discussion 6, Project 3, Homework 6
Week 10	Confidence Intervals, Module 7	Discussion 7, Homework 7
Week 11	Hypothesis Testing for 1 Sample, Module 8	Discussion 8, Project 4, Homework 8
Week 12	Hypothesis Testing for 2 Samples, Module 9	Discussion 9, Homework 9
Week 13	Exam 3	Exam 3
Week 14	Correlation and Regression, Analysis of Variance, Module 10	Discussion 10, Homework 10, Project 5
Week 15	Review for Final	
	Thanksgiving break	Thanksgiving break
Week 16	Final Exam	Final Exam

THE ORIENTATION QUIZ IS DUE BY 9AM ON Saturday 08/17/2024. IF THE SYLLABUS QUIZ IS NOT COMPLETED BY THEN, YOU WILL BE DROPPED FROM THE CLASS.

*****Subject to change without prior notice*****