IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	Fall 2025	Instructor Name:	Allyn Leon
Course Title & #:	STAT C1000, Introduction to Statistics	Email:	allyn.leon@imperial.edu
CRN #:	11322	Webpage (optional):	imperial.instructure.com
		Video Orientation:	syllabus video link
Classroom:	N/A	Office #:	2761
Class Dates:	10/6/2025 - 12/6/2025	Student Hours (2761):	Mon: 4:45 pm to 5:45 pm
		Student Hours (Zoom):	Tu/Wed/Th: 10 am to 11 am
Class Days:	N/A	Office Phone #:	760-355-6523
Class Times:	N/A	Emergency Contact:	Email me or call/text office phone
Units:	4	Class Format:	Online

Course Description

This course is an introduction to statistical thinking and processes, including methods and concepts for discovery and decision-making using data. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-squared, and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Students apply methods and processes to applications using data from a broad range of disciplines. (Formerly MATH 119)(C-ID: MATH 110) (CSU, UC credit limited. See a counselor.)

Additional Description Information:

The use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. 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.

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

Placement as determined by the college's multiple measures assessment process or completion of a course taught at or above the level of intermediate algebra.

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.

Other Course Information

Last day to add the class: Thursday 10/9/2025
Last day to withdraw from the class with a "W": Friday 11/14/2025

Textbooks & Other Resources or Links

Recommended Textbook: Elementary Statistics Using Excel, 7th Edition, by Mario Triola, Pearson Publisher.
The **OPTIONAL** textbook is available at the bookstore or online. There are also numerous online resources in Canvas.

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, and there are also **various apps** that you can use instead; 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.

Course Objectives

Through various activities and assessments, students will be able to:

1. Assess how data were collected and recognize how data collection affects what conclusions can be drawn from the data.
2. Identify appropriate graphs and summary statistics for variables and relationships between them and correctly interpret information from graphs and summary statistics.
3. Describe and apply probability concepts and distributions.
4. Demonstrate an understanding of, and ability to use, basic ideas of statistical processes, including hypothesis tests and confidence interval estimation.
5. Identify appropriate statistical techniques and use technology-based statistical analysis to describe, interpret, and communicate results.
6. Evaluate ethical issues in statistical practice.

ADDITIONAL Objective Information:

7. Distinguish among different scales of measurement and their implications.
8. Calculate measures of central tendency and variation for a given data set.
9. Determine and interpret levels of statistical significance including p-values.
10. Identify the basic concept of hypothesis testing including Type I and II errors.
11. Formulate hypothesis tests involving samples from one and two populations.
12. Use linear regression and ANOVA analysis for estimation and inference, and interpret the associated statistics.
13. Make use of Chi-square distributions to analyze counts.
14. 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.
15. Apply concepts of probability theory, such as counting principles, conditional probability and the Poisson distribution.

Course Requirements and Instructional Methods

Quizzes: Each unit (or module) has a set of specified skills to learn, along with study materials and “quizzes” to help you practice these skills. There are four general units in the course, and each unit has several modules. Each module has one quiz. Quizzes are your chance to **practice**, to make mistakes, to learn. Making mistakes is part of the process of learning math and is expected. For this reason, **quizzes will only count as a small portion of your grade**. There are an **unlimited** number of attempts on quizzes and these assignments will be available for the entirety of the course. There are due dates listed for each of these assignments to **help keep you on pace** to complete the class by the last day.

Project(s): There will be four short projects that may involve the use of technology (such as Google Sheets, Minitab, StatDisk, or Microsoft Excel). More information will be provided through Canvas. These projects will fulfill some of the skill objectives and a rubric will be provided (in Canvas) detailing how to fulfill the requirements for this category. There will be one project aligned with each main unit (there are four units).

Exams: Each unit will end with an exam on the skills covered. There are four main units, so there will be **four unit exams**. The exams are your chance to show you have learned the skills that your grade will be based on. You will **NEED to submit your work for MOST problems**, so make sure to review the rubric for each skill and show work that explains your solution. If you do not submit or upload work for your exam exercises I will not be able to verify the skill completed. Exam grades will "count" once the written work is graded. **How to show your work?** You will take pictures of the work you did and upload them into Canvas, or create a document that has the steps and upload that.

Note: If you do not have written work uploaded for your exam, your score will not count and will be recorded as a zero.

If you have not yet mastered a skill in the exam, you will have additional opportunities to show you have learned the material (like during an exam retake). Before attempting a retake exam, you will be expected to study, work on quizzes, and seek out tutoring help. If you show improvement on a retake or future exam, then your grade on that skill will be replaced to reflect your most recent work. Details on retakes will be in one of the orientation videos in Canvas. Please check those out.

Note: Do not log out in the middle of an exam or your score will be automatically recorded. If you run into a problem with this, please contact me right away.

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:

10 Quizzes (take 13, top 10 count) @ 10 points each	100 points	~16.7%
4 Projects @ 25 points each	100 points	~16.7%
4 Exams @ 100 points each	400 points	~66.7%
Total	***600 points***	***100%***

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

90% to 100%	540-600 points	A
80% to 89%	480-539 points	B
70% to 79%	420-479 points	C
60% to 69%	360-419 points	D
Below 60%	Below 360 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.

IMPERIAL VALLEY COLLEGE

Anticipated Class Schedule/Calendar

Date or Week	Activity/Topic	Assignment
Week 1 Oct 6 - Oct 12	Orientation/Syllabus Quiz **(DUE TUESDAY 10/7)**, Module 0 Sampling and Data, Module 1	Syllabus Quiz Quiz 1
Week 2 Oct 13 - Oct 19	Descriptive Statistics Part 1, Module 2 Descriptive Statistics Part 2, Module 3 Unit 1 Wrap Up	Quiz 2 Quiz 3 Project 1 Exam 1
Week 3 Oct 20 - Oct 26	Probability Topics Part 1, Module 4 Probability Topics Part 2, Module 5	Quiz 4 Quiz 5
Week 4 Oct 27 - Nov 2	Discrete Random Variables, Module 6 Normal Distributions, Module 7 Unit 2 Wrap Up	Quiz 6 Quiz 7 Project 2 Exam 2
Week 5 Nov 3 - Nov 9	Confidence Intervals, Module 8 Hypothesis Testing for 1 Sample, Module 9	Quiz 8 Quiz 9
Week 6 Nov 10 - Nov 16	Hypothesis Testing for 2 Samples, Module 10 Unit 3 Wrap Up	Quiz 10 Project 3 Exam 3
Week 7 Nov 17 - Nov 23	Correlation and Regression, Module 11 Analysis of Variance, Module 12	Quiz 11 Quiz 12
Week 8 Nov 24 - Nov 30	**Thanksgiving Week**	**Thanksgiving Week**
Week 9 Dec 1 - Dec 6	Unit 4 Wrap Up Final Exam	Project 4 Final Exam

THE SYLLABUS QUIZ IS DUE BY 11:59 PM ON TUESDAY 10/7/2025. THE SYLLABUS QUIZ NEEDS TO BE COMPLETED IN ORDER TO LET ME KNOW YOU WANT TO STAY IN THE CLASS (not turning it in = getting dropped).

Course Policies

- 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.

Course Policies (continued)

- *Attendance in an online class is more than just logging in*
    - You will need to make sure that you log in and check announcements regularly
    - There are weekly readings and assignments that need to be done in a timely manner
    - There will be exams completed online in Canvas as well
    - **The Syllabus Quiz counts as an attendance check for the first week, due by 11:59 pm on TUESDAY, 10/7/2025**
    - **If you do not complete The Syllabus Quiz on time, you will be dropped from the class**

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through DSPS, contact them for additional assistance.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

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.