IMPERIAL VALLEY COLLEGE

Course Syllabus – STAT C1000 (Introduction to Statistics) - Fall 2025

Basic Course Information

Semester:	**Fall 2025**	Instructor Name:	**Dr. Alejandro Cozzani**
Course Title & #:	**STAT C1000: Introduction to Statistics**	Email:	**alex.cozzani@imperial.edu**
CRN #:	**11326/11340/11341/11343/11344**	Webpage (optional):	**Refer to Canvas**
Classroom:	**N/A**	Office #:	**2776**
Class Dates:	**Class Start Date: August 11, 2025 Class End Date: December 06, 2025 Last Day to Add: 08/23/25 Deadline to Drop with "W": 11/01/25**	Office Hours:	**Monday through Thursday, 10:00 11:00 AM, or by appointment (see Canvas announcement for details).**
Class Days:	----------	Office Phone #:	**760-355-5760**
Class Times:	----------	Emergency Contact:	**Silvia Murray 760-355-6201**
Units:	**4.0**	Class Format/Modality:	**Online Asynchronous**

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 credit limited. See a counselor.)

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

Successful completion of Intermediate Algebra or appropriate placement as defined by AB705.

Student Learning Outcomes

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

- 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.

1. 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

Required:

1. Mario F. Triola. *Elementary Statistics using Excel* (7th Edition). Pearson. ISBN: 9780136921721.

Other:

2. Software as needed: Primarily Microsoft Excel; XLSTAT, StatDisk Online, and/or Graphing Calculator (Be sure to check the Canvas announcement for specific details and the access code).

Course Requirements and Instructional Methods

1. Your Success Starts Here!

Success is the goal—and you've got what it takes! Stay focused, work hard, aim high, and always give it your best effort. You've got this!

2. Time Commitment: What to Expect Outside of Class

According to the Department of Education, for every 1 hour of class time, you should plan on spending about **2 additional hours** working outside of class each week. This helps you stay on top of things and truly understand the material. (WASC follows the same guidelines.)

3. Tech Checklist: What You'll Need for Canvas

To access assignments and complete your work online, make sure you have:

- ✅ A computer
- ✅ Reliable internet access (If needed, you can use internet at IVC or your local library)
- ✅ A compatible browser (Google Chrome or Firefox work best; Safari might not show everything correctly)

4. Assignment Deadlines: Stay Ahead!

Each module is open for a full week, giving you plenty of time to complete the assignments.
Tips to stay on track:

- 📆 Don't wait until the last minute—technical issues can happen, and assignments are due **before 11:59 PM on Sunday**.
- 📤 Submit everything **directly in Canvas**—no emailed assignments will be accepted or graded.

5. Lecture Materials: Watch + Read = Succeed

You're expected to go through each module's readings (or textbook chapters) **and** watch the pre-recorded videos. The assignments are based on these materials, so make sure to stay up to date!

6. Online Discussions: Speak Up, Join In!

You'll participate in discussion boards where you'll analyze ideas, back up your thoughts with evidence, and engage with your classmates. It's all about learning together!

7. Online Quizzes: Check Your Learning

Each module ends with a quiz to help you see how much you've learned.
📝 Instructions will be under the "Quizzes" tab in Canvas.

8. Assignments: Practice Makes Progress

Every module has a few assignments designed to help you dig deeper and master the key concepts. Take them seriously—they're here to help you learn.

9. Projects: Put Your Skills to the Test

Some modules include special projects to build your skills in **analyzing and interpreting data**. These are a great way to apply what you've learned in a hands-on way.

10. Research Project: Explore Your Curiosity

You'll design your own research question and test a hypothesis using real data (from a survey, experiment, or public source). Then you'll analyze the results to see if your data supports your hypothesis. This is your chance to be the scientist!

11. Tests and Exams: Be Ready for Anything

Expect a mix of question types:
✔ True/False

✔ Multiple Choice
✔ Open-Ended
✔ Free Response

12. Final Exam: Show What You Know

The final may include questions from earlier tests (recycled) and some new ones. They'll be similar in difficulty to what you've already seen—so if you've been keeping up, you'll do just fine!

13. Missed an Exam or Assignment?

If something serious comes up (like a hospital stay), you may request a makeup.
📧 Email your instructor as soon as possible and provide valid documentation. Without that, makeup requests can't be approved.

Course Grading Based on Course Objectives

How Your Grade Will Be Calculated

Your final grade will be based on **categories**, not just total points. Here's how each part of the class contributes to your overall grade:

CATEGORY	PERCENTAGE
Quizzes & Discussions	20%
Assignments	20%
Projects	10%
Exams (3 total)	20%
Final Exam	20%
Online Homework	10%
Total	**100%**

📊 Grading Scale

Grade	Percentage
A	90–100%
B	80–89.99%
C	70–79.99%
D	60–69.99%
F	59.99% and below

- Your current grade is always visible in **Canvas**.
- You must earn at least a **C (70%)** to pass the course.
- Final grades **will not be rounded** (e.g., 89.99% is still a B), so aim for a strong finish and stay consistent!

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.
We are here to support you and ensure that you have equal access to all course materials.

Course Policies

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 absence 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: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- 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.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

ONLINE NETIQUETTE

- 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, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

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

- 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, 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.

Other Course Information

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.

- CANVAS LMS. Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- 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.
- CANVAS LMS. Canvas is Imperial Valley College's Learning Management System. To log onto Canvas, use this link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- 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.

Financial Aid

Your Grades Matter! To continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Makings 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.

Anticipated Class Schedule/Calendar

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

WEEK OF	ACTIVITY, ASSIGNMENT, TOPIC	READING/VIDEOS	ASSIGMENTS DUE
Week 1 August 11-17	MODULE 0: Course Orientation MODULE 1: Descriptive Statistics	Please review the content in Module 0 on Canvas. Please read the content in Module 1 and watch the accompanying videos.	*August 17, 2025, by 11:59 PM*
Week 2 August 18-24	MODULE 2: Describing, Exploring, and Comparing Data	Please read the content in Module 2 and watch the accompanying videos.	*August 24, 2025, by 11:59 PM*
Week 3 August 25-31	MODULE 3: Probability	Please read the content in Module 3 and watch the accompanying videos.	*August 31, 2025, by 11:59 PM*
Week 4 September 01-07	**Exam # 1** **(Modules 1-2-3)**	**Done in Canvas**	*September 07, 2025, by 11:59 PM* *Monday 09/01/25 Is a holiday*
Week 5 September 08-14	MODULE 4: Discrete Probability Distributions	Please read the content in Module 4 and watch the accompanying videos.	*September 14, 2025, by 11:59 PM*
Week 6 September 15-21	MODULE 5: Normal Probability Distributions	Please read the content in Module 5 and watch the accompanying videos.	*September 21, 2025, by 11:59 PM*
Week 7 September 22-28	MODULE 6: Estimates and Sample Sizes	Please read the content in Module 6 and watch the accompanying videos.	*September 28, 2025, by 11:59 PM*
Week 8 September 29-October 05	**Exam # 2** **(Modules 4-5-6)**	**Done in Canvas**	October 05, *2025, by 11:59 PM*
Week 9 *October 06-12*	*MODULE 7: Hypothesis Testing*	Please read the content in Module 7 and watch the accompanying videos.	*October 12, 2025, by 11:59 PM*

Week 10 October 13-19	MODULE 8: Inferences from Two Samples	Please read the content in Module 8 and watch the accompanying videos.	*October 19, 2025, by 11:59 PM*
Week 11 October 20-26	MODULE 9: Correlation and Regression	Please read the content in Module 9 and watch the accompanying videos.	*October 26, 2025, by 11:59 PM*
Week 12 October 27- November 02	**Exam # 3** **(Modules 7-8-9)**	**Done in Canvas**	*November 02, 2025, by 11:59 PM*
Week 13 November 03-09	MODULE 10: Goodness of Fit and Contingency Tables	Please read the content in Module 10 and watch the accompanying videos.	*November 09, 2025, by 11:59 PM*
Week 14 November 10-16	Module 11: Analysis of Variance	Please read the content in Module 11 and watch the accompanying videos.	*November 16, 2025, by 11:59 PM* *Monday 11/10/25 Is a holiday*
Week 15 November 17-23	Research Project	_____	*November 23, 2025, by 11:59 PM*
November 24-30	***NO SCHOOL***	***THANKSGIVING BREAK***	***Nothing Due***
Week 16 December 01-06	**Final Exam**	**All Modules**	***Done in Canvas by December 04, 2025***