Stat C1000 - Introduction to Statistics

Fall 2026

De Anza College | Monday & Wednesday 11:00 AM-1:15 PM | Classroom: G6

Course information	Details
Course	Stat C1000, Introduction to Statistics
Institution	De Anza College
Term	Fall 2026
Instructor	Jelena Segan
Section and CRN	Sec. 15, CRN 28624
Meeting pattern	Mondays and Wednesdays; 2h 15 minutes lectures / labs
Meeting time and room	11:00 AM-1:15 PM, classroom: G6
Contact	Use Canvas or the instructor's De Anza faculty email: seganjelena@fhda.edu
Office hours	Monday: 1:15 PM – 1:45 PM in S55; Wednesday: 7:50 AM – 8:30 AM in MLC260; Zoom;

Course description

This course introduces data analysis through graphical and numerical methods. Students study variation and randomness, collect information under uncertainty, use probability to anticipate distributions, check assumptions, test hypotheses, construct interval and point estimates, and use regression and categorical-data methods to draw and communicate conclusions. Applications include business, economics, medicine, education, psychology, science, engineering, and contemporary issues.

Advisory. EWRT 211 and READ 211, or LART 211, or ESL 272 and 273, are recommended support courses when applicable.

Student learning outcomes

By the end of the course, students should be able to:

- organize and analyze sample data using appropriate tables, graphs, and numerical measures;
- identify, evaluate, interpret, and describe data distributions using probability theory and sampling distributions;
- collect data, formulate and evaluate statistical conjectures, and communicate results using statistical language;
- construct and interpret point estimates, confidence intervals, hypothesis tests, regression analyses, and categorical-data analyses;
- use a graphing calculator and spreadsheet tools to support, check, and communicate statistical work.

Required materials

- Free open resource textbook: Introductory Statistics by Barbara Illowsky and Susan Dean, OpenStax, ISBN 1-947172-05-0. The web version and downloadable PDF are free; access links will be posted in Canvas.
- A graphing calculator with statistical functions. TI-83, TI-83 Plus, TI-84, TI-84 Plus, or an equivalent calculator is recommended. Approved calculator-app information will be posted in Canvas.
- Instructor-provided guided notes, practice problems, Excel statistics instructions, and data files, provided without an additional textbook fee.
- Reliable access to Canvas and a way to submit typed or scanned work. A laptop is required on designated data-lab days.

Course organization

Each meeting includes a short review, guided instruction, worked examples, practice, and a closing check. Most weeks include reading from the free OpenStax textbook, online practice, and an opportunity to correct or improve work. Class activities are designed to help students explain what a result means, not only produce a number.

Technology. Calculator and spreadsheet work will be used when they improve understanding or make a realistic analysis possible. Students are responsible for showing the setup, method, and interpretation even when software produces the numerical result.

AI and online help. AI tools may be used for explanation and additional practice only when an assignment permits it. They may not be used to produce or submit solutions for quizzes, midterms, or the final exam. Any permitted use must be disclosed, and students remain responsible for checking every calculation and interpretation.

Grading

Course component	Points	Description
Homework and online practice	100 points	Frequent practice from the assigned OpenStax sections
Quizzes and weekly checks	100 points	Short checks; the lowest two quiz scores are dropped
Lab project	100 points	Data-analysis project using calculator, spreadsheets, or supplied data
Midterm 1	100 points	Wednesday, October 21; Chapters 1 through 6
Midterm 2	100 points	Wednesday, November 18; Chapters 7 through 10
Class participation	50 points	Attendance, opening checks, discussion, and in-class work
Comprehensive final exam	200 points	During the De Anza final-exam window, December 7 through 11
Total	750 points	Final course grade

Letter grades. A = 90–100%; B = 80–89%; C = 70–79%; D = 60–69%; F = below 60%.

Quiz schedule. Short quizzes or weekly checks are normally given on Wednesdays when no midterm is scheduled. Exact dates and coverage will be posted in Canvas.

Extensions and corrections

Corrections are encouraged for homework, quizzes, midterms, and lab projects, because revising mathematical reasoning is part of learning statistics. Homework corrections should normally be requested within 14 days of the original due date and may receive a 10% late penalty. Quiz, midterm, and lab corrections may receive a 25% late penalty. The final exam is not eligible for corrections. Specific submission instructions will be posted with each assignment.

Course policies

Attendance and participation

Regular attendance is expected. Class meetings include explanations, guided practice, quizzes, labs, and opportunities to ask questions. Opening checks may be used to record participation. If an absence is unavoidable, check Canvas and communicate as soon as possible.

Academic integrity

Submitted work must represent the student's own reasoning. Copying, permitting another student to copy, plagiarism, unauthorized assistance, using prohibited notes or technology during an assessment, or changing

graded work before requesting a correction is not permitted. Violations may result in a zero and referral under De Anza College policy.

Student conduct

Students are expected to support a respectful learning environment. Disruptive behavior that prevents others from learning will be addressed according to college policy.

Communication

Canvas is the primary location for announcements, assignments, files, and schedule updates. When emailing, include STAT C1000 and the section or meeting time in the subject line. Allow one to two business day(s) for a response whenever possible.

Accessibility and support

Students who need accommodations should contact De Anza Disability Support Programs and Services and share the approved accommodation notice with the instructor as early as possible.

Free tutoring and academic support are available through De Anza support centers;

Fall 2026 important dates

Calendar item	Fall 2026 date or note
Fall classes begin	Monday, September 21, 2026
Last day to add or drop without a W	Sunday, October 4, 2026; confirm section-specific deadlines in MyPortal
Midterm 1	Wednesday, October 21, 2026
Veterans Day	Wednesday, November 11, 2026; no class
Last day to drop with a W	Friday, November 13, 2026; confirm section-specific deadlines in MyPortal
Midterm 2	Wednesday, November 18, 2026
Thanksgiving holidays	Thursday and Friday, November 26–27, 2026; no college classes on those dates
Final examinations	Monday through Friday, December 7–11, 2026

Official calendar. De Anza College Academic Calendar: https://daweb2.deanza.edu/calendar/

Holiday scheduling. Because Veterans Day falls on Wednesday, November 11, the class has one Wednesday holiday exception. The Monday and Wednesday meetings of Thanksgiving week remain scheduled because the official college holidays are Thursday and Friday, November 26 and 27.

Tentative Fall 2026 class schedule

The schedule below adapts the chapter sequence in the reference STAT C1000 syllabus to two meetings per week. Topics may be adjusted slightly in Canvas to respond to student progress, but college holidays and exam dates will be announced clearly if they change.

Week and dates	Monday and Wednesday plan	Preparation or checkpoint
1 Sep 21 and 23	Mon Sep 21: Introduction and Chapter 1 Sampling and Data; sections 1.1–1.3. Wed Sep 23: Chapter 1; sections 1.4–1.6; sampling and experimental-design practice.	Read Ch 1; bring calculator.
2 Sep 28 and 30	Mon Sep 28: Chapter 2 Descriptive Statistics; sections 2.1–2.4. Wed Sep 30: Chapter 2; sections 2.5–2.8; Quiz 1 and descriptive-statistics practice.	Read Ch 2; practice graphs and measures of center.
3 Oct 5 and 7	Mon Oct 5: Chapter 3 Probability Topics; sections 3.1–3.3. Wed Oct 7: Chapter 3; sections 3.4–3.6; Quiz 2 and probability practice.	Read Ch 3; complete probability exercises.
4 Oct 12 and 14	Mon Oct 12: Chapter 4 Discrete Random Variables; sections 4.1–4.3. Wed Oct 14: Chapter 5 Continuous Random Variables; sections 5.1, 5.2, and 5.4; Quiz 3.	Read Ch 4 and assigned Ch 5 sections.
5 Oct 19 and 21	Mon Oct 19: Chapter 6 Normal Distribution; sections 6.1–6.2. Wed Oct 21: Midterm 1; Chapters 1 through 6 and assigned calculator or spreadsheet skills.	Review Ch 1–6; Midterm 1.
6 Oct 26 and 28	Mon Oct 26: Chapter 7 Central Limit Theorem; sections 7.1–7.3. Wed Oct 28: Chapter 7; section 7.5; introduction to Chapter 8 Confidence Intervals; sections 8.1–8.3.	Read Ch 7 and Ch 8.1–8.3.
7 Nov 2 and 4	Mon Nov 2: Chapter 8; sections 8.4–8.6; confidence-interval lab. Wed Nov 4: Chapter 9 Hypothesis Testing with One Sample; sections 9.1–9.3; Quiz 4.	Read Ch 8 and Ch 9.1–9.3.
8 Nov 9 and 11	Mon Nov 9: Chapter 9; sections 9.4–9.6; one-sample hypothesis-test practice. Wed Nov 11: Veterans Day holiday; no class. Complete the assigned independent practice.	Finish Ch 9; no class Nov 11.
9 Nov 16 and 18	Mon Nov 16: Chapter 10 Hypothesis Testing with Two Samples; sections 10.1–10.3. Wed Nov 18: Chapter 10; sections 10.4–10.5; review and Midterm 2.	Review Ch 7–10; Midterm 2.
10 Nov 23 and 25	Mon Nov 23: Chapter 11 Chi-Square Distribution; sections 11.1–11.4. Wed Nov 25: Chapter 11; sections 11.5–11.8; chi-square lab. Thanksgiving holiday begins Nov 26.	Read Ch 11; complete lab preparation.
11 Nov 30 and Dec 2	Mon Nov 30: Chapter 12 Linear Regression and Correlation; sections 12.1–12.5. Wed Dec 2: Chapter 12; sections 12.6–12.9; Chapter 13 One-Way ANOVA; sections 13.1–13.5; final review.	Read Ch 12–13; final-review practice.
12 Dec 7–11	Final examination window. The exact day, time, and room are assigned by De Anza College. The final is cumulative, with emphasis on interpreting statistical evidence and showing the method used.	No regular Monday/Wednesday lecture unless the official final schedule specifies otherwise.

Chapter and section outline

Chapter	Sections
Chapter 1 Sampling and Data	1.1 Definitions of Statistics, Probability, and Key Terms; 1.2 Data, Sampling, and Variation; 1.3 Frequency, Frequency Tables, and Levels of Measurement; 1.4 Experimental Design and Ethics; 1.5 Data Collection Experiment; 1.6 Sampling Experiment
Chapter 2 Descriptive Statistics	2.1 Stemplots, Line Graphs, and Bar Graphs; 2.2 Histograms, Frequency Polygons, and Time Series Graphs; 2.3 Measures of Location; 2.4 Box Plots; 2.5 Measures of Center; 2.6 Skewness and the Mean, Median, and Mode; 2.7 Measures of Spread; 2.8 Descriptive Statistics
Chapter 3 Probability Topics	3.1 Terminology; 3.2 Independent and Mutually Exclusive Events; 3.3 Two Basic Rules of Probability; 3.4 Contingency Tables; 3.5 Tree and Venn Diagrams; 3.6 Probability Topics
Chapter 4 Discrete Random Variables	4.1 Probability Distribution Function for a Discrete Random Variable; 4.2 Mean or Expected Value and Standard Deviation; 4.3 Binomial Distribution
Chapter 5 Continuous Random Variables	5.1 Continuous Probability Functions; 5.2 Uniform Distribution; 5.4 Continuous Distribution
Chapter 6 Normal Distribution	6.1 Standard Normal Distribution; 6.2 Using the Normal Distribution
Chapter 7 Central Limit Theorem	7.1 Central Limit Theorem for Sample Means; 7.2 Central Limit Theorem for Sums; 7.3 Using the Central Limit Theorem; 7.5 Central Limit Theorem Cookie Recipes
Chapter 8 Confidence Intervals	8.1 A Single Population Mean Using the Normal Distribution; 8.2 A Single Population Mean Using the Student t Distribution; 8.3 A Population Proportion; 8.4 Confidence Interval Home Costs; 8.5 Confidence Interval Place of Birth; 8.6 Confidence Interval Women's Heights
Chapter 9 Hypothesis Testing with One Sample	9.1 Null and Alternative Hypotheses; 9.2 Type I and Type II Errors; 9.3 Distribution Needed for Hypothesis Testing; 9.4 Rare Events, Sample, Decision, and Conclusion; 9.5 Full Hypothesis Test Examples; 9.6 Testing a Single Mean and Single Proportion
Chapter 10 Hypothesis Testing with Two Samples	10.1 Two Population Means with Unknown Standard Deviations; 10.2 Two Population Means with Known Standard Deviations; 10.3 Comparing Two Independent Population Proportions; 10.4 Matched or Paired Samples; 10.5 Testing Two Means and Two Proportions
Chapter 11 Chi Square Distribution	11.1 Facts About the Chi Square Distribution; 11.2 Goodness of Fit Test; 11.3 Test of Independence; 11.4 Test for Homogeneity; 11.5 Comparison of Chi Square Tests; 11.6 Test of a Single Variance; 11.7 Chi Square Goodness of Fit Lab; 11.8 Chi Square Test of Independence Lab
Chapter 12 Linear Regression and Correlation	12.1 Linear Equations; 12.2 Scatter Plots; 12.3 Regression Equation; 12.4 Testing the Correlation Coefficient; 12.5 Prediction; 12.6 Outliers; 12.7–12.9 Regression applications
Chapter 13 F Distribution and One Way ANOVA	13.1 One-Way ANOVA; 13.2 F Distribution and F Ratio; 13.3 Facts About the F Distribution; 13.4 Test of Two Variances; 13.5 One-Way ANOVA Lab

Student success checklist

- Read the assigned OpenStax section
- Complete practice problems before attempting corrections or exam review.
- Bring a calculator and a laptop on designated data-lab days.
- When using technology, write the formula or command, the output, and an interpretation in context.
- Ask for help early through class questions, office hours, Canvas, tutoring, or counseling.

Important reminder

A statistical answer is more than a number. Students will be expected to identify the population or groups, state the method, show the calculation or technology output, interpret the result in context, and describe a limitation when one exists.

Student Learning Outcome(s):

• Organize, analyze, and utilize appropriate methods to draw conclusions based on sample data by constructing and/or evaluating tables, graphs, and numerical measures of characteristics of data.

• Identify, evaluate, interpret and describe data distributions through the study of sampling distributions and probability theory.

• Collect data, interpret, compose and evaluate conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

Office Hours:

1:15 PM - 1:45 PM	S55	M
7:50 AM - 8:30 AM	MLC260; Zoom	W