

Math 10 Syllabus

Syllabus

Contact Information

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Course Description

Elementary Statistics is an introduction to data analysis course that makes use of graphical and numerical techniques to study patterns and departures from patterns. The student studies randomness with emphasis on understanding variation, collects information in the face of uncertainty, checks distributional assumptions, tests hypotheses, uses probability as a tool for anticipating what the distribution of data may look like under a set of assumptions, and uses appropriate statistical models to draw conclusions from data.

The course introduces the student to applications in engineering, business, economics, medicine, education, the sciences, and other related fields. The use of technology (computers or graphing calculators) will be required in certain applications.

Student Learning Outcome Statements (SLO)

- **Student Learning Outcome:** 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.
- **Student Learning Outcome:** Identify, evaluate, interpret and describe data distributions through the study of sampling distributions and probability theory.
- **Student Learning Outcome:** Collect data, interpret, compose and defend conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

Prerequisites

Qualifying score on Intermediate Algebra Placement Test within the past calendar year.

Advisory: Readiness for freshman English.

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Texts, Materials, and Plug-ins

Texts

The following textbook is required for the course. It is available for purchase at the [De Anza College Bookstore](#) [_\(http://www.deanza.edu/bookstore/\)_](http://www.deanza.edu/bookstore/) and available for free online.

Introductory Statistics , Barbara Illowsky & Susan Dean

Available for free at: <https://openstax.org/details/introductory-statistics>

Materials

Required Calculator: The TI-83+ or 84 calculator is required. There are many examples that use the calculators and contain the calculator instructions. YOU WILL BE TAUGHT HOW TO USE THE CALCULATOR IN THE COURSE LESSONS through linked videos.

Labs and projects make use of the TI graphing calculator and may be done individually or in groups of up to four.

- Other Calculators: TI-86 or TI-89

You may use the TI-86 or TI-89 calculator if you have one, but you must have the programs loaded into it from the following [TI-86](http://education.ti.com/us/product/tech/86/download/download.html) [_\(http://education.ti.com/us/product/tech/86/download/download.html\)_](http://education.ti.com/us/product/tech/86/download/download.html) or [TI-89](http://education.ti.com/us/product/tech/89/apps/appslst.html) [_\(http://education.ti.com/us/product/tech/89/apps/appslst.html\)_](http://education.ti.com/us/product/tech/89/apps/appslst.html) Web pages.

Plug-in's and Players

- Download the free [Flash Player](http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash) [_\(http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash\)_](http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash) to view and listen to some of the animations.
- Download the free [Real Player](http://www.realnworks.com/info/freeplayer/) [_\(http://www.realnworks.com/info/freeplayer/\)_](http://www.realnworks.com/info/freeplayer/) (for the audio/video half-hour course lessons in the Resources Area.
- Download the free [Quick Time](http://www.apple.com/quicktime/download/) [_\(http://www.apple.com/quicktime/download/\)_](http://www.apple.com/quicktime/download/) plug-in for viewing Quick Time movie in your browser.

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Homework

The purpose of homework is to help you learn the material in the course. You learn the most and do your best if you do the homework problems. The homework will NOT be collected. It is for you to do on your own for practice. You are expected to do the chapter PRACTICE in the workbook before attempting the homework. The answers to the Practice are in the back of the workbook. Then do the assigned odd numbered homework problems in the text and check those answers in the back of the text. Again, do not turn in the homework, it is for your own practice.

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Labs

Labs make use of the TI graphing calculator.

The labs may be done individually or in groups of up to four members. If you know (or get to know) others in the Distance Learning class, you are encouraged to work in groups. Turn in one copy with all of the group members' names on the top.

SUBMITTING LABS:

The labs are due to me at the beginning of each in-class exam.

Please retain a copy of your papers for your files.

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Exams

Two Midterm Exams and one Final Exam will be given on campus. They are listed below and in the CALENDAR (click Navigation Menu to the left) together with their times, days, and room numbers. Bring a red PARSCORE and a #2 pencil to the test. You must also BRING A PHOTO ID. You may bring one 8 1/2 inch by 11 inch page (both sides - this is only ONE piece of paper, not two glued together, etc) of notes for the Midterm Exams (two pages for the Final Exam), a calculator, and, if English is a second language, a print (not electronic) English translation dictionary. No make-ups will be given.

Exam #1: Thursday, July 11, 2019 from 7:00-7:50PM in Forum 1

Exam #2: Thursday, July 25, 2019 from 7:00-7:50PM in Forum 1

Final Exam (Final): Thursday, August 8, 2019 from 6:00-8:00PM in Forum 1

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Grading	Total	Points (out of 470) for:
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	Points	
Exams (2@ 100 points each)	200	A: 423-470
Quizzes (13 @ 10 points each, 5 lowest dropped)	80	B: 376-422
Labs (3 @ 30 points each)	90	C: 329-375
Final Exam	100	D: 282-328
		F: Below 328

**** Note: There are no exam makeups! However, if the score on your final exam is higher than any one of your midterms, I will replace your lowest midterm score with your final exam score.

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Dropping the Course

If you wish to drop the course, it is your responsibility to either drop online from the De Anza Web site or fill out a drop form and turn it into admissions and records. I do not need to sign the drop slip. Please inform me by Catalyst email if you do drop. IT IS YOUR RESPONSIBILITY TO DROP OR WITHDRAW IF YOU NEED TO.

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Topics to Skip

Please skip the following topics when you see them here online or in your text book.

Chapter 3	Venn Diagrams
Chapter 4	Geometric, Hypergeometric
Chapter 7	Central Limit Theorem for Sums

Chapter 11	Test of One Variance

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Cheating

Students who submit the work of others as their own or cheat on exams or other assignments will receive a failing grade in the course and will be reported to college authorities.

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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 defend conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.