

Math 10-40Y

Instructors:

Email

Introductory Statistics

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Fall 2022

You need to have a pdf scanner or any App on your cell phone to upload document. I suggest "Genius Scan". It is very easy to use and is free on any cell phone. Some papers will be turned in on Canvas and some will be turned in in class.

READ THROUGH THIS ENTIRE SYLLABUS SO THAT YOU ARE FAMILIAR WITH THE CLASS AND ITS MANY DETAILS.

This is a demanding, but rewarding class. If you cannot commit to a minimum of 15 hours per week of study and group work, then you should take this class in a quarter when you have more time to learn. This is also a collaborative class. You will be expected to work with your classmates both inside and outside of class. This class is **hybrid**, it means you are responsible of learning the material on your own for most of the time and we meet twice a week in classroom setting. You will be directed on which part you need to accomplish before meeting face to face.

Course Description: Introduction to data analysis making use of graphical and numerical techniques to study patterns and departures from patterns. The student studies randomness with an 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

Attendance: You are expected to attend all in class sessions. If you accumulate four absences (4 hours) you will be dropped from the class. Also if you fail to complete assignments 2 weeks in a row, I may drop you from the course, however, students are responsible TO DROP OR WITHDRAW if they so need. Please inform me by email if you are going to be absent and the reason for it.

Text: The textbook for this course is the Introductory Statistics from OpenStax and is available for **FREE** at: <http://openstaxcollege.org/textbooks/introductory-statistics> You can use the book online or download a pdf file or just access it through the webassign (cengage)

Related Materials 1) A graphing calculator is required: TI 84 or TI-84+. You may use a TI83 or TI 83+ if you already have one

2) **[You need to print a chapter material course each week, available on Canvas.](#)**

Homework: The Homework is mandatory. The Homework will be available and graded online at WebAssign (<http://cengage.com>). You will need to purchase a code to access the Webassign homework. The lowest score will be dropped. The class key is: **deanza 9053 9381**

Quizzes: Many quizzes will be given through the quarter. The lowest quiz grade will be dropped. No make-ups are given. Some quizzes will be on Webassign and some will be in class.

Labs: Labs make use of the TI graphing calculator. The labs may be done individually or in groups of up to four members. Turn in one copy with all of the group members' names on the top.

Project: One project is assigned for the quarter. You will collect data and perform a statistical study. You can work with partners up to four members. Turn in one paper with the names of all partners in the group.

Exams: Three exams will be given. Each exam is multiple choices and worth 50 points. Exams will be taken in classroom only. Bring a Score Sheet (# 1712-PAR-L) available at the bookstore. Students may bring 1 page of notes

Final Exam:** A two-hour comprehensive exam will be given. If you miss the final exam, you will receive an F for the course. Bring a Score Sheet (# 1712-PAR-L). Students may bring 2 pages of notes to the final. Finals must be taken at scheduled time during finals week.

** The final exam counts as two test exams. Therefore they are like five exams and the lowest exam score will be dropped.

Grading system

| | | | | | |
|---------------|---------------|-----|---------------|----|---------|
| Homework | 50pts | A+: | 96% and above | A: | 89%-95% |
| Quizzes | 60pts | B+: | 85%-88% | B: | 79%-84% |
| Exams | 100pts | C+: | 76%-78% | C: | 70-75% |
| Final** | 100pts | D: | 60-69% | | |
| Project | 50pts | F: | below 60% | | |
| Labs: | 20pts | | | | |
| TOTAL: | 380pts | | | | |

Topics to Skip

Ch 3: Venn diagrams

Ch 4: Geometric, Hypergeometric, Poisson Distributions

Ch5: Conditional probability for Uniform distribution

Ch 7: Central Limit Theorem for Sums

Ch 11: Test of variance

Ch 13 Test of two variances

Miscellaneous

Chapter videos and podcasts to download are available on Barbara Illowsky's web site: <http://faculty.deanza.edu/illowskybarbara/>

Papers must be turned in on the due date. They may be turned in earlier, but THEY WILL NOT BE ACCEPTED LATE.

SUDENTS SERVICES

Free Tutoring: I strongly encourage you to utilize this resource. More information can be found here: <http://www.deanza.edu/studentssuccess/mstrc/>

Disability Support Services: If you need to contact the Disability Support Services, then please contact them as soon as possible. More information can be found here: <https://www.deanza.edu/dsps/>

Academic Integrity: This is pretty straightforward: Do not cheat on quizzes, exams, or directly copy other student's work. It is not worth getting caught and suffering the consequences. For more information about De Anza College's policy on academic integrity: https://www.deanza.edu/policies/academic_integrity.html

Student Services: This web site leads you to information about financial aid, child care, counseling, academic support, disability support, student activities, and other services that are here for you. The physical location for most of these services is in the Student Community Services Building. <http://www.deanza.edu/studentsservices>

The last day to add is **October 8th 2022**

The last day to drop with no record is **October 9th 2022**

The last day to drop with a W is **November 18th 2022**

Below is a tentative schedule for the course. I may need to make some changes if needed by removing assignments or adding assignments depending on the progress we will make through the quarter.

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|-------------|---|---|
| Week one | CH 1: Sampling and Data | Homework Ch1 due 10/2 on Webassign Quiz Ch1 |
| Week two | CH 2: Descriptive Statistics | Homework Ch2 due 10/9 on Webassign Quiz Ch2 |
| Week three | CH 3: Probability | Homework Ch3 due 10/16 on Webassign Start the project |
| Week four | Exam 1: Ch 1, 2, 3 ; in class CH 4: Discrete Random variables | Homework Ch4 due 10/23 on Webassign Data Check , Lab Ch4 |
| Week five | CH 5: Continuous Random Variable | Homework Ch5 due 10/30 on Webassign Graph Check , Quiz Ch5 |
| Week six | CH 6: Normal Distribution CH 7: Central limit for averages | Homework Ch6, Ch 7 due 11/6 Quiz CH 6,7 |
| Week seven | Exam 2: Ch 4, 5, 6, 7 CH 8: Confidence Intervals | Homework Ch8 due 11/13 Project Due Lab Ch8 |
| Week eight | CH 9: Hypotheses Testing (Single mean, single proportion) | Homework CH 9 due 11/20 Quiz Ch9 |
| Week nine | CH 10: Hypotheses testing (two means, two proportions, paired Data) | Homework Ch 10 due 11/27 Quiz Ch10 , |
| Week ten | CH 11: Chi-Square Distribution CH 12: Linear Regression | Homework Ch 11 and Ch 12 due 12/4 |
| Week eleven | Exam 3; Ch 8, 9, 10, 11 CH 13: F-distribution and the ANOVA | Homework Ch 13 due 12/11 Quiz CH 13 |
| Week twelve | FINAL EXAM | Tuesday, 12/13 th 9:15-11:15am |

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.

Office Hours:

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|-----------|-----|----|----------|----------|
| In-Person | E37 | TH | 10:30 AM | 11:20 AM |
| In-Person | E37 | W | 09:30 AM | 10:20 AM |