

Math 10 54Z (CRN-48909) Introductory Statistics Spring 2024
(04/08/2024- 06/28/2024) Instructor: Neelam R. Shukla

Class Time/days: It is an online class from **04/08/2024 - 06/28/2024**.

Course Description:

This course is an 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, social sciences, psychology, the sciences, and those pertaining to issues of contemporary interest. The use of technology (computers or graphing calculators) will be required in certain applications. Where appropriate, the contributions to the development of statistics by men and women from diverse cultures will be introduced. This Statistics course is a required lower-division course for students majoring or minoring in many disciplines such as data science, nursing, business, and others.

Required Materials:

a) T1-84 Calculators

b) Text: Introductory Statistics, by Illowsky and Dean.

c) **Online Homework:** You will have online homework on each chapter we cover on WebAssign, and you must pay \$42.95 for the quarter. The homework will be embedded within Canvas. The links and due dates are within the modules. You can request automatic extension for homework with 5% deduction of scores.

d) **Course Requirements:** Windows PC or laptop, Mac or MacBook, or Chromebook:

This class cannot be taken on a phone, regardless of its make or model, and cannot be taken on an iPad either.

Asynchronous learning: Asynchronous learning, online homework, quizzes, labs, discussions, and exams are where you will earn 100% of your points in this class. You have 4 quizzes, 4 exams, 6 Group assignments (Labs), 1 Final Exam and 13 homework assignments. One least exam, quiz, Lab, and 2-homework score will be dropped at the end.

Course Content:

1. Displaying and Analyzing Data with Graphs
2. Descriptive Statistics
3. Populations and Sampling
4. Probability
5. Discrete Random Variables
6. Continuous Random Variables
7. The Central Limit Theorem
8. Point Estimation and Confidence Intervals
9. One Population Hypothesis Testing
10. Two Populations Inference
11. Chi-square Tests for Categorical Data
12. Correlation and Linear Regression
13. One Factor Analysis of Variance (ANOVA)

Office Hours:

Monday, 7:30 pm-8:30 pm via Zoom

Be sure to submit all first- and second-week assignments to get into the "rhythm" of the class. Please note that if you're not submitting any assignments, I will assume that you are not interested in the taking the class and may drop you (so you can get your refund)! If, for any reason during the quarter, you stop participating and intend to drop the class, **please do an official drop in a timely manner**. Please see the calendar for important deadlines. If you fail to do so, you will receive an "F" in the class. Follow the deadlines for this class in My Portal. I do not have the ability

to make exceptions to these.

Weekly Schedule:

Every Monday new module will open: Read overview page, read textbook, watch lecture notes and videos, work on homework, respond to discussion boards, and study! **We will have synchronous Zoom meeting for office hours. The link can be found in the Zoom in left navigation or home page. You're expected to ask your questions, do worksheets, and take quizzes and exams.**

Chapter Discussions:

There will be a chapter-topic discussion. The due date will be at the end of the week. These topics are designed to help you think critically about statistics and express your analysis, conclusions, or opinions. They will often involve the history and practice of statistics, applications of statistics in the real world, etc.

Homework, Worksheets and Labs:

The best way to succeed in any math class is doing all the assigned work correctly and in a timely manner, making sure you really understand what you are doing! Focus on your understanding of the concept, how it relates to the course concepts and how it's applied outside of the class, not just on following a procedure or learning a skill! Time spent on the homework and worksheets will directly benefit you on quizzes and exams.

Lab-Worksheets:

You will have worksheets in almost every class. These worksheets will usually be posted as Google docs in the Canvas modules. You will work on them in groups, but you are to submit them individually by the deadline. They are designed to help you practice the concepts and skills you are learning. I will look for evidence of your understanding in your work.

Lab-group-Worksheets Submission Guidelines:

- Even though the problems will be discussed in groups, you must write up your own solutions independently.
- Worksheets should be scanned and turned-in time, within 24 hours after the deadline will receive half credit. After that, they will receive no credit.

Participation:

Even though this is asynchronous class, you are expected to participate. Here are ways to participate:

- Ask questions in the discussion check rubric.
- Participate actively submit group-lab-worksheets on-time, no extension will be given.
- Participate in assigned discussion boards (it's part of your grade) Post and answer questions in chapter discussion boards check rubric.

Quizzes:

We will have **4** quizzes (see the calendar) check dates on Canvas. You will need to submit them on time to receive any points. **IMPORTANT:** There will be **NO MAKEUPS** for any of the quizzes. However, your lowest one quiz scores will be dropped.

Exams:

You will have four exams. You can skip cumulative final exam in case you take all the exams. And average final-exam score will be calculated as $(\text{Total of best three exam scores})/3$. See the calendar for the dates. There will be **NO MAKEUPS** for any of the exams, so be sure to not miss any of them.

IMPORTANT: One of the best "average final-exam score" or "the cumulative final exam" will be picked. Final exam cannot be rescheduled for any reason. In case you are not happy with average final-exam score you can take the cumulative final exam.

Evaluation:

Discussions: 5%, Homework: 15%, Quizzes: 20 %

Cumulative-Exams: 35%, labs 10%, Final Exam: 15%

Academic Integrity:

All students are expected to be academically honest throughout the term. Any instances of cheating or plagiarism will result in disciplinary action, which may include recommendation for dismissal. You are encouraged to work together but submitting someone else's work as your own is never acceptable! Also, that activity will be of no help to you later. Cheating will result in getting a 0 on the assignment or assessment, an 'F' in the course, or dismissal from the class.

Also, each incident of cheating will be reported to the Dean of the Physical Science, Mathematics and Engineering Division. Please see the De Anza College's page on Academic Integrity: https://www.deanza.edu/policies/academic_integrity.html (Links to an external site.). Also, please watch this video that's designed to help you understand what academic honesty means: <https://www.youtube.com/watch?v=4unoOe-I0eY> (Links to an external site.)

Help:

1. Your classmates are a great resource. Ask for help and provide help to others either within your current groups or using Canvas discussion boards!
2. Visit me during office hour. On online homework, you can message me by using 'Ask My Instructor' button.
3. Get help from De Anza's Math Student Success Center. See details at <http://deanza.edu/studentssuccess/> (Links to an external site.).
Use NetTutor (available 24/7) for help through Canvas. You can also access SmartThinking through MyPortal.
4. If you need any technical help with MyPortal, Zoom, Canvas, etc., visit <https://www.deanza.edu/online-fall/#Learning> (Links to an external site.).

Disability Notice:

If you feel that you may need an accommodation based on the impact of a disability, please contact me privately to discuss your specific needs. Also, please contact Disability Support Programs & Services through <https://www.deanza.edu/dsps/> (Links to an external site.) for information or questions about eligibility, services, and accommodations for physical, psychological or learning disabilities.

Important Dates: Go to

<https://www.deanza.edu/calendar/>

Math 10 Introductory Statistics Winter 2022 Tentative Calendar, Please check canvas for the due dates.

Week #		
Week1&2	Chapter 1,2,3	Quiz1, HW due, Lab works due
Week3&4	Chapter 4,5,6	Exam1, HW due, Lab works due
Week5&6	Chapter7,8	Quiz2, Exam2, HW due, Lab works due
Week7&8	Chapter9&10	Quiz3, Exam3, HW due, Lab works due

Week9&10	Chapter11&12	Quiz4, Exam4, HW due, Lab works due
Week11&12	Chapter13	Final Exam June 28, 2024

Important Days:

April 8: Spring classes begin.

April 9: Last day to [add classes](#) .

April 20: Last day to [drop classes](#) without a W.

May 25-27: Memorial Day holiday –no classes; offices closed.

May 31: Last day to [drop classes](#) with a W.

June 19: Juneteenth Holiday– no classes; offices closed.

June 24-28: [Final exams](#). **Thursday 28th June**

The professor reserves the right to make changes to the syllabus, including assignment due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

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:

W	07:30 PM	08:30 PM	Canvas,Zoom
M	07:30 PM	08:30 PM	Zoom,Canvas