

Math 10 Introductory Statistics and Support for Statistics
Math-D010-Q02 (CRN- 27617) and Math D210X-Q02 (CRN- 27618)
Fall 2023– Syllabus (09/25/2023-12/15/2023)

Instructor: Neelam R. Shukla

Class Time/days: 11:00 am- 1:15 am Monday, Wednesday, and Thursday in Room # L25

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) Please use the link below to download the book for free: Text: Collaborative Statistics, 2nd Edition by Illowsky and Dean.

c) Notebook, pen/pencil to write in the class.

<http://cnx.org/content/col10522/latest/>

d) **Online Homework:** You will have online homework on each chapter we cover on WebAssign, and you must pay \$27.99 for the quarter. Please do not buy any code, click at the **first homework assignment, it will take you to the other window, follow the instructions.**

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 with in 3 days from the due date.

e) **Course Requirements:** Windows PC or laptop, Mac or MacBook, or Chromebook: for online assignments.

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

Face-to-face 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 Support assignments and (Labs) ,1 Final Exam and 12 homework assignments. One least exam, quiz, Lab, and homework score will be dropped at the end.

canvas.

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, Wednesday: 6:00 pm-7:15 pm via zoom link will be avail on the home page of Canvas. 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:

Mondays (and other days): Read textbook, watch lecture notes, work on homework, respond to discussion boards, and study! **We will have meeting 8:30 am- 10:45 am Monday, Wednesday, in Room #G10 and Thursday in Room #S49 on campus. We have class meetings. You're expected to attend these meetings: ask your questions, do worksheets, and take quizzes and exams.**

Chapter Discussions:

There will be a topic of discussion. The due date will be at the end of 3-weeks. 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.

Worksheets:

You will have worksheets in almost every Thursday. 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 support and practice the concepts and skills you are learning. I will look for evidence of your understanding in your work.

Support Worksheets Submission Guidelines:

- Even though the problems will be discussed in groups, you must write up your own solutions independently.
- Worksheets will be due the day after you work on it in class. Worksheets that are turned in within 24 hours after the deadline will receive half credit. After that, they will receive no credit.

Labs:

We will have three technology labs in this class. They will be done in groups. There will be one submission per group, with each member of the group receiving the same grade. Labs are due the day after they are done in class. Late labs will NOT be accepted.

Participation:

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

- Ask questions during the class.

- Participate actively when we do worksheets during class sessions.
- Participate in assigned discussion boards (it's part of your grade) Post and answer questions in chapter discussion boards.

Quizzes:

There will be **six** quizzes (see the calendar) online via 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 3 exams. One least score will be dropped at the end.

Evaluation:

Support-Worksheets and Labs: 15%: Discussions: 2%, Homework: 15%, Quizzes: 20 %

Cumulative-Exams: 33 %, 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-l0eY> (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 for help with online homework or any other course related questions.
3. Ask questions during our synchronous meetings on Monday, Wednesday and Thursday.
4. Get help from De Anza's Math Student Success Center. See details at <http://deanza.edu/studentsuccess/> (Links to an external site.).
Use NetTutor (available 24/7) for help through Canvas. You can also access SmartThinking through MyPortal.
5. 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.

Math 10 Introductory Statistics (M.W.Th. 11:00 AM-1:15 PM) – Fall 2023 Tentative Calendar

Important Dates: Go to

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

| Week # | Monday | Wednesday | Thursday |
|--------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 1 | 25 th September Spring Session starts | 27 th September | 28 th September |
| 2 | 2 nd Oct Ch 1,2: | 4 th Oct Ch 2: Questions | 5 th Oct: Chap2 Quiz1(on Ch 1, 2) Support assignment (on Ch 1&2) Due |
| 3 | 9 th Oct Chapter 3: | 10 th Oct Chapter 3 Questions | 11 st Oct: Support assignment (on Ch 3) |
| 4 | 16 th Oct Chapter 4 | 18 th Oct Chapter 4,5 Quiz 2 (Chap3,4) | 19 th Oct Chapter 5: Support assignment (Ch 4) Due Cumulative Exam2 (Ch. 1-4) |
| 5 | 23 rd Oct | 24 th Oct Chapter 6,7 | 25 th Oct Support assignment (Ch 5,6) Due |
| 6 | 30 th Oct Chapter 7: Quiz 3(5&6) | 1 st Nov Chapter 7: | 2 nd Nov Support assignment (Ch 7) Exam 1(On Ch 1-7) |
| 7 | 6 th Nov | 8 th Nov Ch 8: | 9 th Nov Chapter 9: Quiz 4(Chap 8) Support assignment (Ch 8) |
| 8 | 13 th Nov Chapter 9: | 15 th Nov Chapter 10: Chap 9 Cumulative Exam2 (Ch. 5-8) | 16 th Nov Chap 10: Zoom meeting |
| 9 | 20 th Nov | 22 nd Nov Zoom meeting: Chap 10 | 23 rd Nov Thanksgiving, No Class Support-Assignment (Chap 9&10)Due |
| 10 | 27 th Nov Ch 11: : Zoom meeting Chapter 11 Quiz 5(Chap 9 and 10) | 29 th Nov Chapter 11: | 30 th Nov Chapter 11, 12 |
| 11 | 4 th Dec Quiz 6(Chapter 11) Chapter 12: | 6 th Dec Chapter 13: Cumulative Exam3 (Ch. 9-12) | 7 th Dec Support assignment (Ch 11&12) Due Questions Review for the final exam |
| 12 | 11 th Dec Final Exam 11:30 am – 1:30 pm | | |

Student Learning Outcome(s):

- Demonstrate mathematical concepts, skills and numeracy needed for understanding Probability and Statistics.

Office Hours:

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| M | 06:00 PM | 07:15 PM | Zoom |
| W | 06:00 PM | 07:15 PM | Zoom |