# MATH 10: Elementary Statistics and Probability • Sec 61 • Spring 2015 

Room S46•MW 6:30-8:45PM

## 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, social sciences, psychology, the sciences, and those pertaining to issues of contemporary interest. The use of technology (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. ( 5 units)

## PREREQUISITE

Mathematics 114 or equivalent with a grade of C or better; or a qualifying score on the Intermediate Algebra Placement Test within the past calendar year. Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

## REQUIRED MATERIALS

- WebAssign access code (see HOMEWORK for more information)
- One three-ring binder for notes, exams, homework, labs, and other handouts
- Graphing calculator (TI-83/TI-83 Plus/TI-84/TI-84 Plus), paper, ruler or straight-edge
- Lecture notes printed for each class meeting


## TEXTBOOK

- Introductory Statistics by Barbara Illowsky and Susan Dean, ISBN: 978-1-938168-20-8

NOTE: This textbook is available to download for free (online or PDF) on:
http://openstaxcollege.org/textbooks/introductory-statistics/get

## IMPORTANT DATES*

| Saturday, April 18 | Last day to add quarter-length classes |
| :--- | :--- |
| Sunday, April 19 | Last day to drop with no record of grade |
| Wednesday, April 22 | Lab \#1 due within the first five minutes of class |
| Wednesday, April 29 | Midterm \#1 (Ch 1-4) |
| Friday, May 1 | Last day to request pass/no pass grade |
| Wednesday, May 20 | Lab \#2 due within the first five minutes of class |
| Monday, May 25 | NO CLASS - Memorial Day Holiday |
| Wednesday, May 27 | Midterm \#2 (Ch 5-8) |
| Friday, May 29 | Last day to drop with a "W" |
| Wednesday, June 17 | Lab \#3 due within the first five minutes of class |
| Monday, June 22 | Binder Checks |
| Wednesday, June 24 | Final Exam 6:15-8:15PM (Cumulative, Ch 1-13) |

> *Midterm dates and Lab due dates are subject to change. Final exam date/time is fixed. The instructor will communicate any changes in class and via email.

## COMMUNICATION

I will be using My Courses / Course Studio to communicate with you outside of classroom time. It is accessible to all students enrolled in the course via MyPortal. You need check your email on a regular basis as I will send out homework, labs, exam dates, and study reminders. All class handouts, skeleton lecture notes, written homework, lab worksheets, etc. will be uploaded onto My Courses. If you miss class, you will need to print out the lecture notes and ask a classmate to share his/her completed lecture notes with you.

If you need to contact me, please email me directly. Do not contact me via WebAssign, as I may not see it.

## MAKE-UPS POLICY

You MUST take the exams on the dates listed. There are absolutely no make-up labs, homework, or exams.

## HOMEWORK

- WebAssign: https://webassign.com/ (assigned after the completion of each chapter)
- You must have an access code and do the assignments on WebAssign to be successful in this course. Therefore it is mandatory that you be an active user of WebAssign. Students who are registered in Math 10 but do not activate a license will be dropped. If you need some time to get financial aid or to save up money, you can use the trial period for the first week.
- Enter in our class key: deanza 80814657
- You will be able to access the assignments after each chapter has been presented in class. They are due 7 days after the assigned date at 11PM. For example, if I assign WebAssign homework on a Monday at 9PM, you are expected to have it completed by the following Monday at 11PM. Likewise, if I assign WebAssign homework on a Wednesday at 9PM, you must complete them by the following Wednesday at 11PM. Please do not procrastinate!
- Written Homework (WHW)
- In addition to WebAssign, I will assign some free response questions approximately each week that must be neatly handwritten (or typed) and turned in on the following week. Due dates will be listed directly on the worksheet.
- Your responses must be thorough to illustrate critical thinking in your thought process. Aside from the mathematical algorithms, statistics requires that we are able to effectively interpret and communicate our results so that the reader may understand the conclusions. You are expected to write in complete sentences, using the appropriate syntax in grammar and punctuation.
- This is a way for me to give you feedback and for you to see my level of expectation when I grade your exams.
- The WHW will be posted on My Portal in My Courses. It is suggested that you print out the worksheet and do the homework directly on it, but if you choose to write it out on your own paper, you must keep the responses in order. If you use more than one sheet of paper, be sure to write your name on each sheet and staple the assignment.
- If you know that you are unable to turn in a WHW because you cannot attend class on the day the assignment is due, ask a classmate to turn it in for you OR you have the option of scanning it and emailing it to me. If you choose to scan and email it, it must be in a single PDF (no phone pictures) and it must be sent before class begins that day. Otherwise, I may not grade your homework. Each student may do this only once per quarter.

Collaboration on the homework is encouraged, but each student must write his/her own solutions and not copy them from anyone else. If you have questions about problems from WebAssign or WHW, you may email me or see me in office hours. No late assignments accepted!

## ATTENDANCE

It is essential that you participate and regularly ask questions in order to succeed in this course and your future math courses. Therefore, attendance is required and students are expected to attend all sessions of each class. Attendance may be taken at any point during the class (beginning, middle, or end). If you use your phone/tablet/laptop or any unrelated material, I may ask you to leave and that day will count as an absence.

Instructors may drop students from class if they fail to attend the first class meeting, or when accumulated unexcused hours of absence exceed ten percent of the total number of hours the class meets during the quarter. I will drop students who do not attend the first class meeting.

You should NOT rely on your instructor to drop you from your course. If you decide to stop attending class, it is your responsibility to drop. Failure to do so will result in a grade of F.

## CLASSROOM ETTIQUETTE

- Keep your cell phones on silent and hidden.
- To promote a safe and positive learning environment, you are to be respectful to me and to your classmates. Please do not talk during lecture. If you have a question, raise your hand.
- Your full attention and participation is expected.
- You are required to come to class prepared WITH lecture notes printed out.


## GRADING

- Attendance is mandatory as part of your participation grade. You must also be present to completely fill in your binder for the binder check at the end of the quarter.
- There will be two in-class midterms and a final. Please bring in a valid photo ID on exam days.
- Your lowest WebAssign homework score will be dropped. However, I still encourage you to do all assignments in order to get the most out of this course. Remember that practice is key!
- The grades for the exams will be changed only if there is a clear error on my part, such as adding up marks incorrectly. Problems must be brought to my attention immediately after exams are returned.
- An incomplete grade (I) is rarely assigned. It will only be assigned in extreme situations (i.e. unforeseeable emergency and justifiable reason at the end of the term that prevent you from completing the course). You must be in good standing with near-perfect attendance and an overall grade of a $70 \%$ (C-) or greater in order to request for an incomplete grade.
- The final exam is mandatory. Students who do not take the final exam will earn an F grade regardless of the course grade without the final exam score.

| Breakdown of grades: |  |
| :--- | :--- |
| Homework | $20 \%$ |
| Binder Check/Participation | $10 \%$ |
| Midterm \#1 | $15 \%$ |
| Midterm \#2 | $15 \%$ |
| Labs (3) | $15 \%$ |
| Final Exam | $25 \%$ |


| Quarter grade: |  |
| :--- | :--- |
| $\geq 100 \%$ | A+ |
| $93-99.9 \%$ | A |
| $90-92.9 \%$ | A- |
| $88-89.9 \%$ | B+ |
| $83-87.9 \%$ | B |
| $80-82.9 \%$ | B- |
| $78-79.9 \%$ | C+ |
| $73-77.9 \%$ | C |
| $70-72.9 \%$ | C- |
| $68-69.9 \%$ | D+ |
| $63-67.9 \%$ | D |
| $60-62.9 \%$ | D- |
| $0-59.9 \%$ | F |

## STUDENT LEARNING OUTCOMES

Students successfully completing this course will be able to:

- 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.


## TUTORING

Tutoring is available for all students in the Tutorial Center, S-43. Tutoring is provided at no charge by qualified, trained tutors. Tutors can give students feedback on their course work, help them understand assignments and provide students strategies for improving their learning skills.

For more information, visit http://www.deanza.edu/studentsuccess/mstrc/

## ACADEMIC DISHONESTY

By enrolling in this class you agree to uphold the standards of academic integrity as outlined in the current De Anza college catalogue. Dishonesty includes but is not limited to signing in someone other than yourself on the attendance sheet, in-class cheating, out-of-class cheating, plagiarism, knowingly assisting another student in cheating or plagiarism, or knowingly furnishing false information to college staff, faculty, administrators or other officials. If you are observed cheating, you may receive an $F$ on the assignment/exam and be dismissed from the course.

## CODE OF STUDENT CONDUCT

The college has an obligation to specify those standards of behavior essential to its educational mission and campus life. The students who are in violation of the Code of Student Conduct are subject to disciplinary sanctions which apply at all times on campus as well as to any off-campus functions sponsored or supervised by the college.

## ACCESSIBILITY ACCOMODATIONS

If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please inform me as soon as possible.

## EMERGENCY INFORMATION

Check out the Emergency website for information on what to do in an emergency (earthquake, electrical outage, fire, extreme heat, severe storm, hazardous materials, terrorist attack) here: https://www.deanza.edu/emergency/. Be familiar with these procedures. Information on this page is updated as required.

## LAST NOTE

Please remember that you are responsible for your education. This means that if you are having trouble understanding a concept presented in class, I encourage you to ask questions during class or in office hours. Do not wait until the end of the quarter to realize that you need help. Math and Statistics are hierarchical subjects - they continue to build up on knowledge from previous material. If you miss a lecture, ask a friend to share his/her lecture notes with you.

Before emailing me, please refer to this sheet.
QUESTION: What is expected of me in each lecture?
ANSWER: You are expected to come prepared with your graphing calculator and pencils/pens to take notes along with your 3-ring binder for this class. You MUST print out and bring "skeleton" lecture notes in which you will fill in. If there are problems for you to try on your own, you are expected to do the work.

At the beginning of lecture, if you have questions about the homework from the night before, you may ask those question. Doing so will not only help you, but other people in class.

Make sure to sign in on the attendance sheet for each lecture. Do NOT sign in for anyone else.

QUESTION: I am sick and cannot make it to lecture today. What should I do?
ANSWER: You need to email me with your situation so that you are excused. Lecture notes are posted on My Courses. You will need to download the notes, print them out, and ask a fellow classmate to share their filled-in notes with you. I will not scan my written notes onto My Courses. If written homework or lab is due, ask a friend to turn it in for you.

QUESTION: I am having trouble with a homework problem. How should I ask you for help?
ANSWER: You can come into my office hours to ask for help. If you are unable to visit me at that time, then you can send me a specific email about the question. Your email asking me for help must have the three main parts:

1. Tell me the exact question number and what section it is from.
2. Copy and paste the problem into the email.
3. Show me your attempt at the problem. In other words, do not simply email me the phrase, "I don't get it."

## Example:

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Subject: Math 10 Homework Help
Hi Ms. Lien:
    I am stuck on problem ___ on WebAssign section ___. The problem is... (copy
and paste the homework question here). This is what I tried to do... (show me your
attempt - you can type out what you tried or you can take a picture of your work
and attach it in the email).
Thanks,
(your first AND last name)
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Note: If I am not able to identify who you are based on your email address or name at the end of the email, I will not respond. Furthermore, if you do not follow this format of the three parts required when asking for help on homework, I will not respond.

QUESTION: I was not able to do the WebAssign homework because $\qquad$ . Will you grant me an extension?
ANSWER: No. In this course, there are no make-up assignments. However, I understand that unforeseen events may come up during the quarter that may prevent you from completing an assignment on time. This is
why I will drop your lowest WebAssign homework assignment at the end of the quarter.

QUESTION: I missed a midterm. Can I make it up?
ANSWER: Unless you had a prior arrangement with me, you may not make up a midterm. If you know that you cannot take a midterm on the assigned date, you must bring this to my attention at the beginning of the quarter for an alternative.

QUESTION: What is the binder check?
ANSWER: On the last lecture of the quarter (Monday, June 22), I will check your binder for lecture notes, written homework,labs, midterms, and any other handouts given in class. All lecture notes must be filled in, which is why it is important that you attend all lecture meetings. However, if you must miss class, you can always print out the notes (from My Courses) and ask a classmate to share their completed notes with you. All pages MUST be hole-punched and properly placed in order in a 3-ring binder.

What should be in your binder by the last lecture:

1. All lecture notes, completed and filled in with YOUR handwriting
2. All completed written homework assignments
3. Midterm \#1
4. Midterm \#2
5. Labs
6. Any other handouts provided

QUESTION: I am not in high school anymore. Why are you making us do a binder check? :
ANSWER: Aside from mathematics, I hope to help you with your organizational skills for college. You should be maintaining all of your work as if they were valuable documents. That way, if there is a mistake on my part in inputting grade points, you can easily find and show me the error. Also, being organized with your notes will make studying for the exams an easier process.

QUESTION: How do I earn credit for participation?
ANSWER: To earn the full $10 \%$ for participation, you must be present in class and provide me with your full attention. This means you are following along with the lecture and filling in your notes, asking me any questions if something is unclear.

QUESTION: I don't have the TI-83/TI-83 Plus/TI-84/TI-84 Plus graphing calculator. Can I use something else?
ANSWER: Yes, you may use any scientific calculator or other graphing calculator, so long as you know how to use it to quickly calculate any statistics/parameter. However, I will only be using the $83 / 84$ in class, which means you will need to teach yourself how to use any other calculator. You may not use your phone as a calculator in class or on any exams.

QUESTION: What is my current grade in the class?
ANSWER: I use https://engrade.com to keep track of the scores you earn in each assignment or exam. Sometime during the beginning of the quarter, I will provide you with a code for your individual gradebook. You should monitor it regularly to see your current standing in the course.

Got a question that isn’t listed? Please email me at lienamanda@fhda.edu.

