

MATH 10 Elementary Statistics and Probability

Winter 2022 Section D010.34Z, CRN 35749 Class Time: 4:00 – 6:15p Tues & Thurs

Instructor: LISA MESH E-Mail: meshlisa@fhda.edu

Office Hours: Mon - Thurs 12:30 - 1:25p

Meeting ID: 952 8252 0186 Passcode: 953665

https://fhda-edu.zoom.us/j/95282520186?pwd=Y0RwbjZvRW9oaVVXWmhoWWwySHZpZz09

Class Zoom Meeting: Meeting ID: 964 1054 5156 Passcode: 867180

https://fhda-edu.zoom.us/j/96410545156?pwd=ejBuM0gvRnpSSHVDOFhSd00xRHQ0QT09

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 use of technology (computers or graphing calculators will be required in certain applications. Where appropriate, the contributions to the development of statistics by people from diverse cultures will be introduced.

Class Website / Canvas

We'll be using CANVAS to manage our class documents and deadlines.

Your canvas connection should work, giving you access to all relevant course materials for our class. *If you know how to access Canvas, go to it!* Otherwise, try the steps below.

- 1 Log into MyPortal
- 2 Click on the Apps link in the left-hand navigation on page then choose
- 3 Next, choose "Login to De Anza Canvas Site"
- 4 Once on the Canvas Site, select the following class.

W22 MATH D010 Introductory Statistics 30Z, 34Z Mesh 30315 35749

Our Canvas page contains access to all of the materials we'll need for our class.

It includes links to the course syllabus, links to our online homework, class notes, and other useful items. It will be updated and modified throughout this quarter.

Required Materials

All required materials for this class will be free, published online and accessible through Canvas. These materials include:

- 1. Class Workbook Notes: Published Online in Canvas.
- 2. Textbook: Published Online in Canvas.
- 3. Statistical/Analysis Tools: Published Online in Canvas.
- 4. Online Homework: MyOpenMath, with link and registration through Canvas.

Optional – Basic calculator: This will come in really handy. I recommend getting a cheap, basic calculator.



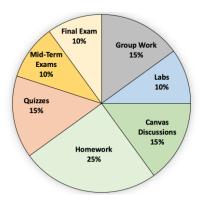
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Class Structure - MATH 10

Our class will meet twice a week via Zoom and will include lecture from our notes, discussion of homework and questions. This is a **synchronous class and student attendance is expected**.

Grades

The grade for this course will be assigned as follows:



Grade	Percentage	Grade	Percentage
A+	At least 98%	B -	80% – 81%
Α	92% – 97%	C+	78% – 79%
A -	90% – 91%	С	70% – 77%
B+	88% – 89%	D	60% – 69%
В	82% – 87%	F/FW	Less than 60%

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Make up Policy

- There are no make-up quizzes or exams for this class. All quizzes and exams must be taken on the date they are scheduled for.
- The final exam date and time have been determined and mandated by the college.
- No early/late final exam may be scheduled. If you know that you are unable to take the final at the date and time above, you must drop the class now.

Late Policy – Late homework, classwork or labs will not be accepted.

Dropped/Replaced Grades

- Lowest 2 Class Group Work score will be dropped.
- Lowest (1) Canvas Discussion score will be dropped.
- Lowest 2 Homework grades will be dropped.
- Lowest (1) Quiz grades will be dropped.
- No Lab grades will be dropped.
- Lowest Exam grade will be replaced by Final Exam grade if the Final Exam grade is higher than the lowest exam grade. (For further detail, see **Final Exam** details on p. 5.)

Group Work (15% of course grade)

Online class participation is key to your success in this class.

Scheduled online class time in Zoom on Tuesday and Thursday will have a Group Work component, using Zoom breakout sessions.

All group work assignments will be covered during online class time (4:00p – 6:15p Tues & Thurs)

Canvas Discussions (15% of course grade)

Each week, students will be required to participate in online discussions that will cover a variety of timely statistically-related topics.

Labs (10% of course grade)

We will have 3 lab grades through the quarter.

- All grades will be included; no lab grades will be dropped.
- Lab exercises should be completed by teams of 1 4 students.
- Each lab team will turn in one report per lab per team.
- The grade on these assignments will be the same for all members of each lab team.

Some lab exercises may include a presentation component. *Each member of a lab group should be prepared, if necessary, to turn in or present a completed group lab report when due.*

Homework (25% of course grade)

Homework for each chapter will be a combination of 2 forms.

- 1. Most homework will be submitted online via MyOpenMath.com (accessible through Canvas).
 - <u>MyOpenMath</u> is a free, online homework program that we'll be using to complete and submit online homework assignments. If you have any questions about homework, feel free to come to office hours or e-mail me at <u>meshlisa@fhda.edu</u>.
- 2. Handwritten work may also be required for some sections. This work will also be submitted via file upload into Canvas.

We'll have approximately 14 homework assignments to be completed.

- The 2 lowest homework scores are dropped.
- All homework is assigned in Canvas and will be due on dates indicated in Canvas.
- Homework must be submitted by the due date/time. No late homework will be accepted.

Homework assignments will be due each week. Deadlines will be noted in Canvas.

If you have homework questions, we'll try to answer them at the beginning of class (time permitting) or during daily office hours. If we cannot answer all questions during class, responses will be posted in Canvas.

Remember, homework help is also available through other tutors in the Student Success Center Online.

Quizzes (15% of course grade)

Quiz dates are scheduled after we cover each chapter and these dates will be set in Canvas.

The lowest quiz grade will be dropped. It is understood that life happens, and that you may miss a quiz during this quarter for some reason. It's really not fair to anyone to give late or make-up quizzes. With both of these thoughts, in mind, instead of providing make-ups, your <u>lowest quiz score is dropped</u>.

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Midterm Exams (10% of course grade)

We will have 3 midterm exams through the quarter in addition to the final.

- Midterm exams will be administered during class time and/or online outside of class time.
- Links and instructions for each exam will be posted in Canvas.
- Each of the midterm exams will cover only the material discussed since the previous test.
- Although tentative dates for these exams are posted on the course calendar in Canvas, we'll set each date firmly at least one week in advance.

It's important to know that you will be held accountable for your work, and you must demonstrate knowledge and proof of your answers, so <u>each Mid-Term Exam will have two components</u>.

- Some percentage of points will come from online score
- Some percentage of points will come from written details. Written details will include at least one of these components:
 - Responses to essay questions
 - Numbered (in order), detailed assumptions/work for each question to support online responses

What happens if you miss a Mid-Term exam?

- I understand that you may be required to miss an exam because of circumstances in life, and our class policy is that there are no late or make-up exams.
- If you do miss an exam, your grade will be recorded as 0 in Canvas then, at the end of the quarter, your final exam will replace this 0 score.

What if you get a really low score on a Mid-Term exam?

- If you don't miss any exams during the quarter, your final exam score will replace your lowest midterm exam score, even if your lowest exam score is a zero.
- Note that if your lowest mid-term exam score is the result of cheating or cell phone misuse, that score will not be replaced by the final exam score, but the next lowest will.

Please keep your work neatly written and organized.

If I can't read your work or track your logic, you will not receive full credit.

Final Exam (10% of course grade)

- Our Final Exam is scheduled to occur on Thursday, 3/24/22.
- The Final Exam is mandatory.
 - That means that you will have to take it if you want to get credit for the 10% of your course grade that it represents.
 - o If you miss the final exam without contacting me (your instructor), you will receive a score of 0 on the Final Exam.
- The Final Exam is cumulative, covering all material in this course (Chapters 1 13 in our textbook).
- The Final Exam will be timed, will be administered online, and will last 2 hours.

The Final Exam will have 2 components, online and handwritten.

It's important to know that you will be held accountable for your work, and you must demonstrate knowledge and proof of your answers.

- Some percentage of points will come from online score
- Some percentage of points will come from written details. Written details will include at least one of these components:
 - Responses to essay questions
 - o Numbered (in order), detailed assumptions/work for each question to support online responses

Tips for Success in our class.

Participate

- Ask questions. You can always e-mail me or ask questions during discussions or office hours.
- Work with others in this class.
 - Share contact information with classmates and work together.

Prepare

- · View the online class videos.
- Take notes.
- · Attend Zoom sessions.

Practice

- Work the assigned homework exercises (+ others!) and share questions.
- Be a meaningful contributor to labs. Don't just let your lab partner do all the work.

Reach out

- Use resources in the Math, Science and Technology Learning Center:
 - http://deanza.edu/studentsuccess/servicesupdate.html
 - For individual tutoring sessions:
 http://deanza.fhda.edu/studentsuccess/mstrc/weekly_ind.html
- Attend our class weekly tutoring. We'll have a dedicated tutor who will provide weekly tutoring sessions.
- Attend office hours. I'm happy to help, and I value your questions.

Calendar of Course Events:

Please use calendar in Canvas to note key deadlines, due-dates, and deliverables.

Class Cancellation:

If I need to cancel class or cannot attend, I'll e-mail you as soon as I can, using announcements via Canvas. Check our Canvas page and email for notices/announcements.

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Accommodations for Students with Disabilities:

If you are a student who has been found to be eligible for accommodations by Disability Support Services (DSS), please follow up to ensure that your accommodations have been authorized for the current quarter. If you are not registered with DSS and need accommodation, please go to the DSS office in the Registration & Student Services Building (RSS) (Room 141) for information on eligibility and how to receive support services. You can also go online to https://www.deanza.edu/dsps/dss/ for additional help.

Speak with me privately after class or during office hours regarding your accommodations. All exams scheduled out of the classroom must be scheduled for a time period that at least overlaps class hours. Exams will not be authorized for vastly different time periods.

HEFAS – Resource Center for Undocumented Students:

HEFAS (Higher Education for AB 540 Students) provides free services, reduces financial stress and creates a safe space for all with an emphasis on undocumented and AB 540 students. They are dedicated to building leaders, promoting social justice, and giving students tools to reach higher education regardless of the barriers that may exist. HEFAS provides free services like books and testing materials and connects students to on and off campus resources including tutoring, counseling and legal aid.

Location: ECOT-2

Website: https://www.deanza.edu/hefas

Key Dates to be aware of:

JANUARY 3 First day of winter quarter

JANUARY 15 Last day to add classes

JANUARY 17 Last day to drop classes without a W

JANUARY 17 Martin Luther King Jr. Holiday - no classes, offices closed

JANUARY 28 Last day to request "Pass/No Pass"

FEBRUARY 18-21 Presidents' Holiday - no classes, offices closed

FEBRUARY 25 Last day to drop classes with a W

MARCH 1 Last day to file for fall degree or certificate

MARCH 21-25 Final exams

Our class final exam is scheduled to occur on Thursday, 3/24/22.

Disclaimer:

Any of information in this syllabus is subject to change if the instructor finds it necessary. Changes will be announced during a class session and those who are absent will be held responsible for any announced changes to the syllabus.

Congratulations! You've read our class syllabus. If you have any questions at all regarding our class, please ask me. I'm really looking forward working together.

Calendar (Subject to Change)

Week 1 (1/3 – 1/9)	Introductions Ch 1 – Displaying and Analyzing Data with Graphs Ch 2 – Descriptive Statistics (1st part)	
Week 2	Ch 2 – Descriptive Statistics (2 nd part)	
(1/10 – 1/16)	Ch 3 – Populations and Samples	
Week 3	Martin Luther King Day	
(1/17 – 1/23)	Ch 4 – Probability	
Week 4	Exam 1	
(1/24 – 1/30)	Ch 5 – Continuous Random Variables	
Week 5	Ch 6 – Continuous Random Variables	
(1/31 – 2/6)	Ch 7 – Central Limit Theorem	
Week 6	Exam 2	
(2/7 – 2/13)	Ch 8 – Confidence Intervals	
Week 7	Ch 9 – One Population Hypothesis Tests	
(2/14 – 2/20)	Cit 5 – One i opulation riypothesis rests	
Week 8	Presidents' Holiday	
(2/21 – 2/27)	Ch 10 – Two Population Inference	
Week 9	Exam 3	
(2/28 – 3/6)	Ch 11 – Chi-Square Tests	
Week 10	Ch 12 - ANOVA	
(3/7 – 3/13)		
Week 11	Ch 13 – Regression Analysis	
(3/14 – 3/20)	,	
Week 12	Final Exam	
(3/21 – 3/25)	(Tuesday, 3/22/22)	

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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.

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*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.