## Welcome to Math 10: Elementary Statistics Summer 2022

Welcome to Statistics! Statistics is an exciting and interesting subject. I hope you will enjoy learning the material in this course. Please read this syllabus in its entirety. I am here to help so please message me (Canvas InBox (Links to an external site.)) or post Discussions questions in Canvas if you need assistance. Plan to commit a minimum of 25 hours per week to this course - this is a very fast-moving course.

This course is $100 \%$ asynchronous, so there are no required meetings. However, there are assignments with deadlines and 3 exams on certain days, so please plan ahead to complete the required work on time.

## Contact Information

Instructor: Dr Lisa Markus
The best way to contact me is via the InBox in Canvas (Links to an external site.) or the Ask Your Teacher (Links to an external site.) in WebAssign. My goal is to respond to asynchronous communications within 24 hours during the school week (Monday Thursday in Summer), and within 48 hours otherwise (Friday - Sunday). You can also post Discussion questions in Canvas.

Email: markuslisa@fhda.edu.

## Getting Help

There is a Getting Help page - please refer to this!

## Attendance Policy

Attendance is required via actively participating online. I will drop any student who has not logged onto the Canvas course and Completed the Orientation Module by 11:00 pm on Wednesday 29 June. 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. It is also the student's responsibility to check http://www.deanza.edu/calendar/ (Links to an external site.) for the De Anza College deadlines. The course-specific dates are in MyPortal.

I post Announcements and send messages to your Inbox in Canvas for all the assignments. Please be sure to read the announcements and check your Inbox in Canvas regularly.

## Math 10 Student Learning Outcomes

1. 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.
2. Identify, evaluate, interpret and describe data distributions through the study of sampling distributions and probability theory.
3. 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.

## Strategies for Success

1. Keep up on all work - set aside at least 15 hours per week to work on this course.
2. Ask questions! - Use Discussions, Canvas InBox, Office Hours on Confer Zoom...
3. Read the textbook in WebAssign and take advantage of the other resources in Canvas.
4. Start the homework long before it is due.

## Required Course Materials

- REQUIRED HOMEWORK: For EACH homework, be sure to click the link to that homework in Canvas. Use the direct links for each chapter in the Modules. The homework is in WebAssign, which costs about $\$ 40$ for the term. For each question, you have up to 5 submissions.
- TEXTBOOK: Introductory Statistics by Illowsky and Dean. (print or online) All of the text is free online, and is included as an e-book with WebAssign Homework. Alternatively, use or download at: https://openstax.org/details/books/introductory-statistics (Links to an external site.) You may also purchase a printed copy at the De Anza College bookstore (Links to an external site.).
- CANVAS: deanza.instructure.com (Free.) Used for links to notes, videos, keeping track of your grades, doing homework, uploading/taking quizzes and exams, and for uploading projects.
- CALCULATOR: A TI-84 graphing calculator (or equivalent) is essential throughout the course and is needed for the exams. You can rent a TI-84 calculator (Links to an external site.). The De Anza College Library (Links to an external site.)also has calculators you can check out. Texas Instruments has a free 90-day trial of a TI-84 emulator. (Links to an external site.)
- Some files in the course are pdf. Download Acrobat Reader (Links to an external site.), if you do not already have it so you can read the pdf files.


## Note to students with disabilities

If you have a disability-related need for reasonable academic accommodations or services in this course, provide me with a Test Accommodation Verification Form (also known as a TAV form) from Disability Support Services (DSS) or the Educational Diagnostic Center (EDC). Students are expected to give one week notice of the need for accommodations. Students with disabilities can obtain a TAV form from their DSS counselor (408 864-8753 DSS main number) or EDC advisor (408 864-8839 EDC main number). The application process is
here: https://www.deanza.edu/dsps/dss/applynow.html (Links to an external site.)

## Several Assignment scores dropped, therefore no makeups

I count your top 2 exam scores (out of the 3 exams), plus the final exam score. Therefore, it is possible your final exam score will be counted twice. For the homework on WebAssign, and the Canvas quizzes, I only take your top 10 grades. For the projects, only your top 4 scores count towards your final grade. This dropping of lowest scores is to take into account any technical difficulties that may occur, plus any other issues that may come up including COVID-19 related. There are absolutely NO MAKEUPS or extensions for any missed work, and no late work will be accepted.

## Academic Integrity

Students who submit the work of others as their own or cheat on exams or other assignments will receive a failing grade in the assignment and will be reported to college authorities. However, on the projects you are encouraged to work in groups of up to 4 people and submit one project per group.

## Online Homework

The purpose of homework is to help you learn the material in the course. You learn the most and do your best if you work through the homework problems. Your 10 highest WebAssign homework scores count towards your final grade, this also takes into account any technical difficulties you may have. NO EXTENSIONS WILL BE GRANTED. Each homework question may be submitted up to 5 times, so for each homework your score should be close to 10. To access the homework, for each chapter click on the links in Canvas!

## Projects

Projects may be done groups of up to four members - you may post in the course Discussions to find people to work with. Turn in one copy with all of the group members' names on the project. Working alone is also just fine.

Projects must be uploaded in Canvas as a SINGLE attachment (a single file, NOT a folder with several files, NOT a zip file) by the due date and time, in the appropriate place, upload in the Project under Assignments by clicking on the "Submit" button.

Attachments that are blank or cannot be opened receive a grade of 0 . Files uploaded in the Comments will not be graded, emailed files will not be graded. If you upload more than one file, I will only grade one file - the default is the most recent upload. Your 4 highest project grades count towards your final grade. This dropping of lowest scores is also to take into account any technical difficulties that may occur.

## Exams

Two Midterm Exams (1 hour) and one Final Exam (2 hours) will be given during the quarter. The exams are in Canvas. I count your top 2 exam scores (out of the 3 exams), plus the final exam score. Therefore, it is possible your final exam score will be counted twice.

If you do not take the Final Exam your grade for the course will be F. I count your top 2 exam scores (out of the 3 exams), plus the final exam score. Therefore, it is possible your final exam score will be counted twice.

## Feedback

For EVERY assignment, be sure to review the correct answers to help understand where you went wrong, and thoughtfully ask me any questions on anything you need help with. In WebAssign there is a Key icon to click on after the due date and time. Also, in WebAssign, there is an "Ask the Instructor" button - please use this! For the projects, check out the rubric in Canvas and review any comments I write about your work after it is graded. Expect the project grades with comments within 3 days of the due date.

## Grades

Summary of assignments for the course

| Type | Description | Maximum Points |
| :---: | :---: | :---: |
| 3 Exams (2 midterms plus final exam) | Top 2 out of 3 at 50 points each | 100 |
| Final Exam (must be taken to pass the course) | 50 points | 50 |
| Quizzes | 13 at 10 points each, 3 lowest dropped | 100 |
| Projects | 5 at 25 points each, lowest dropped | 100 |

TOTAL

Lowest percent for each letter grade: A 93\%, A-90\%, B+ 87\%, B 83\%, B- 80\%, C+77\%, C 70\%, D+ 67\%, D 63\%, D-60\%.

NOTE: there are also extra credit assignments that add to your points, but not the total points, so your personal total is divided by 450 to calculate your grade.

If you do not take the Final Exam your grade for the course will be F. I count your top 2 exam scores (out of the 3 exams), plus the final exam score. Therefore, it is possible your final exam score will be counted twice.

For example, if your scores on Exam 1 and 2 are 40 and 45, and you score 47 on the final, then your exam scores will be 47,45, 47 (with the 47 on the final replacing the 40 on exam 1). If your scores on Exam 1 and 2 are 43 and 45, and you score 40 on the final, then your exam scores will be 43,45, 40 (with the final exam score only counting once).

## Tentative Calendar

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Tentative Calendar for the course

|  | Study these chapters | Assignments due 11:00pm |
| :---: | :--- | :--- |
| Week 1 | Chapter 1: Sampling and Data <br> Chapter 2: Descriptive Statistics | Orientation due WEDNESDAY <br> Homework, Quizzes due FRIDAY |
| Week 2 | Chapter 3: Probability <br> Chapter 4: Discrete Random <br> Variables | Project 1 (Chapter 1, 2) due <br> TUESDAY |
| Homework, Quizzes due <br> WEDNESDAY <br> Exam 1 on Chapters 1-4 on <br> THURSDAY 7 JULY |  |  |


| Week 3 | Chapter 5: Continuous Random Variables <br> Chapter 6: Normal Distribution | Project 2 (Chapter 3) due MONDAY <br> Homework, Quizzes due WEDNESDAY |
| :---: | :---: | :---: |
| Week 4 | Chapter 7: Central Limit Theorem for Averages <br> Chapter 8: Confidence Intervals | Homework, Quizzes due WEDNESDAY <br> Exam 2 on Chapters 5-8 on THURSDAY 21 JULY |
| Week 5 | Chapter 9: Hypothesis Testing (single mean or single proportion) <br> Chapter 10: Hypothesis Testing (2 means, 2 proportions, paired data) | Project 3 (Chapter 7) due MONDAY <br> Homework, Quizzes due WEDNESDAY |
| Week 6 | Chapter 11: Chi-Square Distribution <br> Chapter 12: Linear Regression and Correlation <br> Chapter 13: F Distribution and ANOVA | Project 4 (Chapter 9) due MONDAY <br> Project 5 (Chapter 12) due WEDNESDAY <br> Homework, Quizzes due WEDNESDAY <br> FINAL Exam on Chapters 1-13 on THURSDAY 4 AUGUST |

## IMPORTANT NOTE:

You should always, throughout this course, include leading zeroes, for example write 0.57 NOT . 57.

