Elementary Statistics/Probability<br>Office Hours: M/T/Th 12:30-1:30 PM and Wednesday 1:30-2:00 PM<br>MPS Counselor: Melissa Maturino Rueda, Office S56A, 408-864-8249, maturinomelissa@fhda.edu

Prerequisite: MATH 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.

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.

Textbook: Introductory Statistics, (2014, yellow cover) by Illowsky \& Dean. Purchase of the hardcopy is optional, but it's a course requirement that you have access to a copy of this text. This textbook is available to download for free on: https://openstaxcollege.org/textbooks/introductory-statistics/get

Tutoring Services: Do not wait to get extra help. Contact either instructor via email or in person. The De Anza campus has a tutorial center for math students where students can get "drop in" help. Students can also register to have a regular, assigned tutor for help throughout a quarter. The tutoring center is located in room S-41.

Student Conduct: Do not cheat. Students are expected to be honest and ethical at all times in the pursuit of academic goals. If you have a question during a test, you are only allowed to talk to the instructor. Anyone caught cheating on an exam will receive an automatic 0 and be reported to the Dean of the PSME Division. You can be expelled from the class and possibly from De Anza College with a grade of F if you are caught cheating.

Classroom Behavior: Math requires singular focus. I will expect your full attention during lecture and class activities. Please show courtesy for me and your fellow classmates by turning off and putting away your cell phone during class time, especially during exams. Please do not take calls or text message during class. Do not talk while fellow classmates or I are talking. If you have any type of learning disability, please let me know during the first week of classes so that special arrangements can be made, if necessary. Also, please contact Disability Support Services (864-8753) or Educational Diagnostic Center (864-8839) for information or questions about eligibility, services and accommodations for physical (DSS), psychological (DSS) or learning (EDC) disabilities.

## Required Material:

- WebAssign access code for homework/quizzes
- One three-ring binder for notes, exams, homework, labs, and other handouts
- Graphing calculator (TI-83/TI-83 Plus/TI-84/TI-84 Plus)
- Pencils, erasers, colored pens, paper, ruler/straight-edge
- Lecture notes printed for each class meeting

Time Management: You should expect to spend at least 2 hours outside of the classroom for every 1 hour inside the classroom. This time outside of the classroom may include homework, reviewing notes, studying, and attending office hours. If you want to be successful in this class you will need to put time and effort into it.

Attendance: Students are expected to attend every class meeting. Make sure you sign the attendance roster at each class meeting. If you miss a day, it is solely your responsibility to seek out another student or myself to find out what you missed. You cannot expect to do well in the class if you fail to attend lectures.

Homework: Homework will be assigned every class meeting online and will have a due date. All homework must be submitted by 11:59 PM on the due date. You must set up an account by Monday, January 14, 2019 or you will be dropped from the class. If you have a homework problem you were not able to complete, you have the next class session to ask by putting the problem on the board. At the end of the quarter your lowest homework score will be dropped. Homework will count for $15 \%$ of your term grade. Please do not procrastinate!

Quizzes/labs/Group assignments: There will be a quiz every week. Each quiz will be assigned online or in-class intermittently throughout the term to test your skills on the concepts we are covering in class and online. NO make-up quiz will be given. To compensate for this, I will drop your lowest quiz score. These Quizzes/labs/Group assignments will count for $10 \%$ of your grade.

Midterms: I will give three in class exams during the quarter. No notes will be allowed on any exams. These exams will be completed in class and will contain the materials covered in the lectures, online, and in the book. If you are unable to take an exam for any reason, a makeup exam will not be given. In the case of a documented emergency, I will replace a missing exam score with your final exam score. These exams will count for $50 \%$ of your term grade.

Final Examination: If you do not take the final exam, you WILL NOT receive a passing grade. There will be a comprehensive final examination on Tuesday, March 26 from 09:15 AM-11:15 AM. This test will count for 25\% of your term grade.

## Grade Breakdown:

| A+: 97-100\% | B+: 87-88\% | C+: 77-78\% | D: 62-66\% |
| :---: | :---: | :---: | :---: |
| A: 92-96\% | B: 82-86\% | C: 69-76\% | D-: 60-61\% |
| A-: 89-91\% | B-: 79-81\% | D+: 67-68\% | F: < 60\% |

## Important Dates:

- The last day to add classes is Saturday, January 19.
- The last day to drop for a full refund and no record of " W " is Sunday, January 20.
- The last day to request pass/no pass grade is Friday, February 1.

The last day to drop with a " $W$ " is Friday, March 1

Tentative Schedule for Math 10, Winter 2019

| Week | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | January 7 Syllabus | January 8 Chapter 1 | January 9 Chapter 1 | January 10 Chapter 1 | January 11 Chapter 2 |
| 2 | January 14 Chapter 2 | January 15 Chapter 2 | January 16 Chapter 3 | January 17 Chapter 3 | January 18 Chapter 3 |
| 3 | January 21 Martin Luther King Jr. Holiday | January 22 Chapter 4 | January 23 Chapter 4 | January 24 Chapter 4 | January 25 Review |
| 4 | $\begin{gathered} \text { January } 28 \\ \text { Exam 1 } \\ \text { (Chapter 1-3) } \end{gathered}$ | January 29 Chapter 5 | January 30 Chapter 5 | January 31 Chapter 5 | February 1 Chapter 5 |
| 5 | February 4 Chapter 6 | February 5 Chapter 6 | February 6 Chapter 6 | February 7 Chapter 7 | February 8 Chapter 7 |
| 6 | February 11 Chapter 7 | February 12 Chapter 7 | February 13 Chapter 8 | February 14 Chapter 8 | February 15 President's Holiday |
| 7 | February 18 President's Holiday | February 19 Chapter 8 | February 20 Chapter 8 | February 21 Review | February 22 <br> Exam 2 <br> (Chapter 4-7) |
| 8 | February 25 Chapter 9 | February 26 Chapter 9 | February 27 Chapter 9 | February 28 Chapter 9 | March 1 <br> Chapter 10 |
| 9 | March 4 Chapter 10 | March 5 Chapter 10 | March 6 Chapter 10 | March 7 <br> Chapter 11 | March 8 Chapter 11 |
| 10 | March 11 <br> Chapter 11 | March 12 <br> Chapter 12 | March 13 Chapter 12 | March 14 <br> Chapter 12 | March 15 Review |
| 11 | March 18 Exam 3 (Chapter 8-11) | March 19 Chapter 13 | March 20 Chapter 13 | $\begin{aligned} & \text { March } 21 \\ & \text { Chapter } 13 \end{aligned}$ | March 22 <br> Final Review |
| 12 | March 25 <br> No class | March 26 Final Exam 9:15 $\mathbf{~ a m}-\mathbf{1 1 : 1 5 ~ a m ~}$ | March 27 <br> No class | March 28 <br> No class | March 29 <br> No class |

This syllabus is subject to change at the instructor's discretion.
Topics to Skip:
Chapter 3: Venn Diagrams (3.5)
Chapter 4: Geometric, Hypergeometric, and Poisson Distributions (4.4, 4.5, 4.6)
Chapter 7: Central Limit Theorem for Sums (7.2)
Chapter 11: Test of Single Variance (11.6)

## 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 defend conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

