

# MATH 10 - 11 Elementary Statistics/Probability

MTWThF 11:30 AM - 12:20 PM, Room E36, CRN 24176 Email: rashidnahrin@fhda.edu, Office Phone: 408-864-8201 Office Hours: S33s Monday 12:45 - 3:00 PM & Wednesday 1:25 - 2:30 PM

Instructor: Nahrin Rashid

**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-43.

**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, September 29 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. 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/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/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 **Monday, December 9 from 11:30 AM - 1:30 PM.** 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, October 5.
- The last day to drop for a full refund and no record of "W" is Sunday, October 6.
- The last day to request pass/no pass grade is Friday, October 18. The last day to drop with a "W" is Friday, November 15

## **Tentative Schedule for Math 10, Fall 2019**

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	September 23	September 24	September 25	September 26	September 27
	Syllabus	Chapter 1	Chapter 1	Chapter 1	Chapter 2
2	September 30	October 1	October 2	October 3	October 4
	Chapter 2	Chapter 2	Chapter 3	Chapter 3	Chapter 3
3	October 7	October 8	October 9	October 10	October 11
	Chapter 3	Chapter 4	Chapter 4	Chapter 4	Chapter 4
4	October 14 Exam 1 (Chapter 1-3)	October 15 Chapter 5	October 16 Chapter 5	October 17 Chapter 5	October 18 Chapter 5
5	October 21	October 22	October 23	October 24	October 25
	Chapter 6	Chapter 6	Chapter 6	Chapter 6	Chapter 7
6	October 28	October 29	October 30	October 31	November 1
	Chapter 7	Chapter 7	Chapter 7	Chapter 8	Chapter 8
7	November 4 Chapter 8	November 5 Chapter 8	November 6 Chapter 9	November 7 Chapter 9	November 8 Exam 2 (Chapter 4-7)
8	November 11 Veterans Day Holiday	November 12 Chapter 9	November 13 Chapter 9	November 14 Chapter 10	November 15 Chapter 10
9	November 18	November 19	November 20	November 21	November 22
	Chapter 10	Chapter 10	Chapter 11	Chapter 11	Chapter 11
10	November 25 Chapter 11	November 26 Chapter 12	November 27 Exam 3 (Chapter 8-10)	November 28 Thanksgiving Holiday	November 29 Thanksgiving Holiday
11	December 2	December 3	December 4	December 5	December 6
	Chapter 12	Chapter 12	Chapter 13	Chapter 13	Final Review
12	December 9 Final Exam 11:30 am - 1:30 pm	December 10 No class	December 11 No class	December 12 No class	December 13 No class

This syllabus is subject to change at the instructor's discretion.

Topics to Skip:

Chapter 3: Venn Diagrams (3.5)

Chapter 3: Vein Balgrams (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.