Math 10: Elementary Statistics - Fall 2016

| COURSE | DAY | TIME | ROOM | INSTRUCTOR: Janice Hector |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | OFFICE PHONE: 864-5632 |
| 10.23 (01256) | TTh | 1:30-3:45 pm | E34 | OFFICE ROOM: E25A |
|  |  |  |  | email: hectorjanice@deanza.edu |
| OFFICE HOURS: T/TH: 12:40-1:20 PM, 8:45-9:45 PM |  |  |  |  |

NOTE: If you send me an email, please identify your class time so that I can quickly and better respond to you.

## YOU MUST READ THROUGH THIS ENTIRE SYLLABUS TO BE FAMILIAR WITH

THE CLASS. You are expected to keep a copy of this syllabus and the course calendar with the materials you bring to class each day. For questions about the course/class policies, refer to the syllabus. If the syllabus does not answer your question, ask the instructor. If your question is answered in this syllabus, you will be asked to read the syllabus again to find the answer.

Course outline: required topics: http://ecms.deanza.edu/outlineprogresspublic.html?catalogID=2175

## Student Commitment:

- This is a demanding but rewarding class. This class requires daily attendance and a minimum of 10 hours of study each week outside of class. To transfer to 4 -year colleges, Math 10 must cover a lot of material and moves at a rapid pace. At De Anza College (and all colleges) each at least 2 hours of study outside of class are expected for each hour in class, for a total of 15 hours weekly. If you don't have time or can't commit to attend daily and do required work outside of class, then you should plan to take this class when your schedule permits you to commit the necessary time to succeed.
- This is also a collaborative class. You will be expected to work in cooperation with your classmates (No exceptions). You will be expected to discuss ideas, questions and strategies with your group. Share your thoughts as often one idea will spark another and so on. Working in groups means that students will be asked to chat and have discussions with each other! Working in groups does not mean that students sit together quietly working alone, not talking with each other!
- Although Statistics is a Mathematics course, English reading COMPREHENSION AND ENGLISH WRITING PLAY A VERY IMPORTANT ROLE IN THIS COURSE. COMMUNICATION IS CRITICAL IN LIFE, BOTH GIVING AND RECEIVING INFORMATION. STUDENTS WILL BE ASKED TO CAREFULLY EXPLAIN THEIR THINKING AND PROBLEM-SOLVING STRATEGIES BOTH VERBALLY AND IN WRITING. GRADING WILL ASSUME COLLEGE LEVEL STANDARDS - PROPER SENTENCE STRUCTURE, CAPITALS AND PERIODS!


## Student Learning Outcomes:

- 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.


## Prerequisite:

- MATH: Completion of Intermediate Algebra Math 114 with grade of C or better; or a qualifying score on the Intermediate Algebra Placement Test within the past calendar year, or equivalent placement.
- ENGLISH ADVISORY: English Writing 100 and Reading 100 (or Language Arts 100), or English as a Second Language equivalent courses.
- TI-83, 83+, 84+ have the required statistics programs: the programs will be demonstrated in class.
- If your calculator is lost, stolen, or broken, etc. it is your responsibility to obtain a calculator to use. The library has a small number of TI-83 calculators for limited loans; you need a DASB card to borrow one.
- You may not use TI-89 or TI-NInspire calculators.
- Cell phones or other devices may NEVER be used as a calculator in class or on a quiz or exam.
- Students may NOT share calculators for quizzes or exams.


## Required: Math 10 Worksheet Binder:

- Purchase at the bookstore with Instructor: Janice Hector on the cover.
- If the bookstore runs out of binders on the shelves, ask a manager, not a student employee, for assistance to find a copy. Student employees are not in charge of overall bookstore stocking, and may not know whether there are actually more copies elsewhere in the store.
- Bring the binder every day starting with the first day of class. You will be taking extensive notes with worksheets on the FIRST DAY of class! You will not be able to keep up without this binder.
- All worksheets must be finished with PENCIL ONLY. WORK DONE IN INK WILL NOT BE GRADED.
- Any worksheet material not finished in class may be assigned as homework that you should be ready to turn in THE NEXT CLASS DAY. Do not finish these sheets during class. Returning to the worksheets after class will help reinforce concepts to see what you understood and what you may still have questions on. At the beginning of class, the instructor may collect worksheets for participation points.


## Text: Introductory Statistics by Illowsky and Dean, OpenStax College, 2013

- All of the text is online. Use or download for free at: Open Stax
- You may also purchase a printed copy at the De Anza College Bookstore.
- There are also copies on reserve in the library media center and in the Math/Science tutoring center.
- I strongly encourage you to try the FREE online version rather than buying a hard copy of the text.


## Other Required Materials:

- Bring every day: PENCILS, ERASER, RULER, SMALL STAPLER, 4 SPARE AAA CALCULATOR bATTERIES.
- 4 Scantrons ( 3 midterms and final exam) - thin green (\#882-E) or brown (\#2052). Your scantron must be flat with no bent corners, no wrinkling, no tears or other damage or points may be lost as the scantron machine may be unable to read your answers. These scantrons should be included in the Math 10 Worksheet Binder. Check that you have 4 scantrons when you purchase the Worksheet Binder!
- You will not be able to borrow ANY materials from the instructor.


## Homework:

- Homework is collected and graded via the online system, WebAssign, http://www.webassign.net .
- 13 assignments at 10 points each; best 10 scores count. (This takes into account any technical difficulties you may have.) 100 points total.
- Two attempts allowed for each problem.
- All homework assignments are available at the beginning of the quarter.
- ALERT!!: For WebAssignHomeworks\#8, \#9, \#10, \#11, \#12 and \#13 skip the parts of any problems which require the uploading of a file. The point totals of these 5 assignments have been adjusted to compensate for not answering these questions.
- Each assignment has a specific due date and due time (1 hour before the start of class) after which you will not be able to change your answers.
- You can work on any homework assignment, save/submit your work, stop, and come back and add to it or change it later. WebAssign will keep track of your progress. You must submit your assignment by the due date/time for credit. NO EXTENSIONS WILL BE GRANTED.
- When you submit your assignment, your score will be available automatically to you and the instructor.
- You can check your current score for any homework assignment by clicking on the My Assignments tab and then clicking on the All Assignments tab. Assignments already due can be found by scrolling down to Past assignments. Scores listed on the right will show you how many points your assignment has earned out of the number of points possible for each assignment.
- YOU CAN RETURN TO ANY ASSIGNMENT AND CHECK THE SOLUTION KEY AFTER THE DUE DATE/TIME FOR THE ASSIGNMENT: CLICK My AssignmentsAND CLICKPast Assignments.
- Many additional practice problems are available in the text with answers in the back or online.
- Getting started withWebAssign:
- Log in: http://www.webassign.net/
- Click on:

I HAVE A. CLASS KEY *

- Fill in the three boxes according to your class section below:
- Section 23 (1:30 pm class): deanza 37503410
- Section 27 (4:00 pm class): deanza 09418131
- First and last name - USE your OFFICIAL STUDENT REGISTRATION NAME. No nicknames or abbreviations.
- o Pay the required fee using a credit card or debit card or buy the access codes separately at the De Anza College Bookstore. It's usually cheaper to pay online.
- Starting with the first day of the quarter, there is a 2 week grace period in which you can use WebAssign for free; after the first 2 weeks of the quarter you will no longer be able to log in or use Webassign until you pay the fee. The work you've saved will remain in WebAssign. After you pay the fee, you will have access to your previous work even if you do not pay until after the 2 week grace period has passed.
- Need help logging into Webassign or other technical questions?

Contact Webassign Tech Help: (800) 955-8275
http://www.webassign.net/info/contact us.html
http://www.webassign.net/user_support/student/index.html

## Quizzes:

- 6 quizzes at 20 points each, best 5 scores count, 100 points total.
- Tentative testing days on class calendar. Any changes will be announced in class.
- NO MAKE-UP QUIZZES. If you are absent for a quiz for ANY reason, you receive a grade of 0; one such grade of 0 for a quiz absence would then be dropped as your lowest quiz grade.
- Required: scantron, pencils, erasers, calculator, 4 spare AAA calculator batteries.
- You may bring: ONE 2-sided $81 / 2 " \times 11 "$ page of hand-written notes. If English is a second language, a print (not electronic) English translation dictionary is also allowed.
- Quizzes are based closely on homework \& classwork. You need to do homework thoroughly \& completely and work attentively in class to prepare for quizzes.
- Most quiz questions will require you to write out your answers and show your work. Quizzes must be worked out NEATLY or points will be lost. Quizzes WORKED with PEN will not be graded.
- Full credit for questions answered with sentences will require correct responses as well as proper sentence structure, including capitals and periods.
- STUDENTS WHO REVIEW PRACTICE QUIZZES ONLINE \& IN OTHER INSTRUCTOR'S WEBSITES AS LISTED AT THE END OF THIS SYLLABUS ARE MUCH MORE LIKELY TO EARN HIGHER QUIZ GRADES.
- Midterms:
$>3$ MIDTERM exams at 100 points each, 300 points total. The lowest midterm grade will be replaced by your grade on the Final Exam, ONLY IF IT HELPS YOU. Best 3 scores out of the 3 midterms and 1 final count. Tentative testing days on class calendar. Any changes will be announced in class.
$>$ NO MAKE-UP MIDTERMS. If you are absent for a midterm for ANY reason, you receive a grade of 0; one such grade of 0 for a midterm absence can be replaced by your Final Exam grade.
$>$ Required: scantron, pencils, erasers, calculator, 4 spare AAA calculator batteries.
> You may bring: ONE2-sided $81 / 2 " \times 11 "$ page of hand-written notes allowed. If English is a second language, a print (not electronic) English translation dictionary is also allowed.
- Final Exam:
> 100 points total; $\mathbf{2}$ hours, $\mathbf{4 2}$ multiple-choice questions; MANDATORY \& COMPREHENSIVE: includes all material and chapters $(1-13)$ covered during the quarter. The time and date for the final exam can be found in the important dates listed on page 7 of this syllabus, or on the class calendar at the end of this syllabus or check the final exam schedule on the De Anza College website: http://www.deanza.edu/calendar/ .
$>$ Required: scantron, pencils, erasers, calculator, 4 spare AAA calculator batteries.
$>$ You may bring: TWO 2 -sided $81 / 2 " \times 11$ " pages of hand-written notes allowed.
- General Information For All Exams:
> All exams are multiple-choice. Midterms have 21 questions; Final Exam has 42 questions.
> Bring a half-page green scantron (\#882-E) or brown scantron (\#2052). No other scantron may be used. Your scantron must be flat with no bent corners, no wrinkling, no tears or other damage or points may be lost as the scantron machine may be unable to read your scantron.
> ESL: If English is a second language, a print (not electronic) English translation dictionary is allowed.
> Only students approved by Student Services will be allowed extended time for exams.
> Come with all supplies (scantron, pencils, erasers, calculator, batteries) to take exams. If you do not have the necessary materials to take an exam, you may ask other classmates for supplies ONLY IF you arrive before the official start time of the exam. After the official start time of the exam, even if you are missing supplies, YOU MAY NOT talk to, communicate with, or disturb another classmate and you will need to leave class to obtain the supplies on your own before taking the exam. Students who talk to, communicate with, or disturb another classmate during any testing period may lose their paper and receive a " 0 " score.
$>$ CELL PHONES: Turn off all cell phones COMPLETELY (not just set to silent) and put away before class. If a cell phone is used or goes off during class, you may be asked to leave class for that day. DURING GRADED ACTIVITIES/QUIZZES/EXAMS, if your cell phone or any other electronic device is used, or is visible or goes off during an exam or quiz, your paper may be taken away from you and may have points deducted or receive a " 0 " grade.
$>$ STUDENTS WHO START STUDYING SEVERAL DAYS EARLY FOR EXAMS \& TRY SAMPLE EXAMS ONLINE \& ON OTHER INSTRUCTOR'S WEBSITES AS LISTED AT THE END OF THIS SYLLABUS ARE MUCH MORE LIKELY TO EARN HIGHER EXAM GRADES.
- Worksheets/Lab Activities/Participation Points:
$>30-100$ points of your grade will be determined from daily class work. These points will be lost and cannot be made up if you are absent from class. By the end of the quarter, these points may be worth as much as an exam! Points will be awarded for such things as:
- Individual and group work, finished both in class and outside of class
- On-time attendance and being present for the entire 50-minute class period
- Coming prepared with required supplies (Daily supplies: calculator, pencils, eraser, ruler, stapler, 4 spare AAA batteries)
$>$ Class work points can occur in class anytime during the quarter and may be unannounced or may be announced ahead of time.
$>$ Assignments from the worksheet packet must be completed on the appropriate worksheet page to be graded.
> All work done by hand must be worked out NEATLY and in PENCIL to be graded. Legible hand-writing, proper spelling and capitals and periods with your sentences are expected for college-level work.

| Category | $\frac{\text { Possible }}{\text { Points }}$ |
| :--- | :---: |
| 3 Midterm Exams @ 100 pts each; Lowest midterm <br> score replaced by Final Exam score, if better: <br> best 3 scores out of 3 Midterms and 1 Final | 300 |
| Final Exam (mandatory) | 100 |
| 6 Quizzes @ 20 pts each: best 5 quizzes | 100 |
| 13 Homework sets (WebAssign) @ 10 pts each: <br> best 10 homework sets | 100 |
| Worksheets/Lab Activities/Participation Points | $30-100$ |
| TOTAL POSSIBLE POINTS, depending on the <br> number of participation points for the quarter | $630-700$ |


| Course <br> Grade | Total Percent of <br> Course Points |
| :---: | :---: |
| A | $90 \%-100 \%$ |
| B | $78 \%-89.9 \%$ |
| C | $65 \%-77.9 \%$ |
| D | $55 \%-64.9 \%$ |
| F | $0 \%-54.9 \%$ |

- Keep all work that has been graded during the quarter.
- You are expected to keep a tally of points for this quarter so that you will know how many points you need on the final exam to earn a specific grade for the course. A sample tally sheet can be found at theend of this syllabus.YOU MUST BRING THIS TALLY OF POINTS WITH YOU IF YOU WISH TO CHECK YOUR CURRENT POINT TOTAL WITH THE INSTRUCTOR.
- To access final course grades, log into the De Anza website after the Friday of Finals, http://www.deanza.edu/registration/myinfo.html, with your student ID number.
- DUE TO PRIVACY ISSUES, NO INFORMATION ON GRADES CAN BE GIVEN BY EMAIL OR PHONE AND I CANNOT RESPOND TO SUCH REQUESTS.


## Class Attendance:

- Class attendance EVERY DAY is essential to student success in math. You are expected to attend all classes, arrive on time and stay for the entire class. In particular, ALWAYS STAY after finishing a quiz as we will continue class discussion during the remaining class time.
- If you miss even one day of class, no matter which day, you will definitely miss several concepts, strategies, etc. to analyze and answer problems. Ask a classmate for notes. Go to the tutor center for help.
- Note: You are responsible for keeping up with class assignments \& labs and for being aware of schedule changes even when absent. Remember, the class calendar is ONLY A TENTATIVE schedule. Schedule changes will be announced in class.
- Students are responsible for learning any course information missed due to absence. I will not repeat lectures for students who have been absent. Please do not expect me to email you individually with the day's topic or assignment if you are absent. Obtain phone numbers or email addresses of other students to contact to get notes, etc. If you are absent you should read the text and go to the tutorial center first; then come to me if you still have specific questions.
- Check with your classmates if you are absent from class to know if any work is to be completed at home.
- Arrive on time. No work may be handed in late after it has already been collected.


## Academic Integrity/Cheating:

- All students are expected to exercise academic integrity throughout the quarter.
- Cheating and academic dishonesty are not tolerated. Students involved in cheating - either receiving or providing information - on any quiz or exam will be reported to the dean and may be expelled from the course for the first offense. At minimum, the score for that quiz/exam/assignment/lab will be "0". Any grade of 0 or F due to cheating or academic dishonesty will not be dropped or replaced.
- Cheating includes, but is not limited to, copying from other students or permitting other students to copy from you, plagiarism, submitting work that is not your own, and using notes on exams that do not meet permitted specifications or continuing to write/erase on exams or quizzes after the time for the exam/quiz has ended. Using any electronic device other than your approved graphing calculator on a quiz or exam may be considered cheating. Sharing a calculator with another student during an exam or quiz is considered cheating.
- During testing, your eyes must always be focused on your own paper, not looking around the room.


## Class Rules, Conduct, Cell Phones etc:

- You will often work in pairs or small groups. Please be respectful of each other's ideas.
- Respect other students' right to learn in a classroom environment that supports learning. No private conversations or disruptive behavior in class.
- All electronic devices (cell phones, ipods, ear pieces, etc.) except your calculator must be turned off and put away out of sight during class. Absolutely no noise from them!
- CELL PHONES: In particular, turn off all cell phones COMPLETELY (not just set to vibrate) and put away before class. If a cell phone is used or goes off during class, you may be asked to leave class for that day.
- DURING GRADED ACTIVITIES/QUIZZES/EXAMS, if your cell phone or any other electronic device is used, or is visible or goes off during an exam or quiz, your paper may be taken away from you and may have points deducted or receive a " 0 " grade.
- If you have SPECIAL CIRCUMSTANCES WHERE YOU NEED TO LEAVE YOUR CELL PHONE ON VIBRATE, you need to contact the instructor at the beginning of class, before your cell phone goes off.


## Standards of Work:

- College level work is expected in this class.
- Work is graded for both accuracy and quality of work.
- Work must be NEAT, LEGIBLE, WELL-ORGANIZED, AND ORDERLY.
- When work/explanation is requested, correct answers generally must be supported by correct work to receive credit. You may lose credit, even if the final answer is correct, if the instructor can't easily read or understand your work, if necessary details, or interpretations are missing, if work is not neatly and logically presented, or if work is shown but is incorrect or not consistent with your answer.
- Interpretation is crucial in statistics: when interpretations, conclusions or explanations are asked for, you must use COMPLETE SENTENCES that explain concepts and conclusions in the CONTEXT of the problem, not just in generalities.
- Sentences must include capitals and periods and proper grammar and punctuation.
- ON ANY WORK TURNED IN, you must write your full name: LAST NAME, FIRST NAME.


## IF YOU NEED HELP IN THIS CLASS:

- CHECK THE MATH TUTORIAL CENTER (S-43) for FREE INDIVIDUAL, DROP-IN or GROUP TUTORING. For current hours and information: http://www.deanza.edu/studentsuccess/mstrc/
- Free online tutoring 7 days a week, 24 hours a day: Just login to MyPortal, go to the Students tab, and find the Smarthinking link: http://www.deanza.edu/studentsuccess/onlinetutoring/
- SEE THE INSTRUCTOR DURING OFFICE HOURS.
- FIND A STUDY PARTNER OR GROUP and work together consistently throughout the quarter. Working with somebody else helps both students understand the material better.
- DON'T WAIT UNTIL YOU ARE DROWNING TO GET HELP. Get help as soon as you have difficulty, while there is still enough time to catch up and improve. If you wait until you are behind, you will have a great deal of difficulty catching up. Classes taken on the quarter system move very quickly.


## Other Useful Information:

- For a wealth of information--- help with understanding concepts, video instructions, sample quizzes and exams, TI calculator instructions and MUCH, MUCH, MORE browse the following (Yes, this will take time, so start early!).
- Exam/Quiz Practices: Introductory Statistics - Multiple-choice questions at the end of each chapter.
- Exam/Quiz Practices (Prof. Bloom): http://faculty.deanza.edu/bloomroberta/stories/storyReader\$107
- More practice exams (Prof. Plum): http://www.deanza.edu/faculty/plumkathryn/Math10Exams.html
- More Practice quizzes/exams at either link below: http://cnx.org/content/col10586/1.2 or http://sofia.fhda.edu/gallery/statistics/exams.html. Use Dean and Illowsky's practice quizzes, identified by chapter, to review for quizzes and midterm exams. Use their practice exams to review for the final exam. Caution: some online midterm exams may test chapters that differ from the chapters tested in our midterms.
- There is also a wealth of online resources from many other Math $\mathbf{1 0}$ instructors at De Anza:
> Prof. Roberta Bloom: http://faculty.deanza.edu/bloomroberta/
> Prof. Barbara Illowsky: http://faculty.deanza.edu/illowskybarbara/
> Prof. Kathryn Plum: http://faculty.deanza.edu/plumkathryn/
- The following link is a step-by-step video for working through an ANOVA problem (Chapter 13):
> https://www.youtube.com/watch?v=JZ-_XQbrdPY


## Final Exam, Deadlines and Other Important Dates:

- Final Exam:
- Tuesday, March 22: 1:45-3:45 p.m. (Math 10-23, 1:30-3:45 PM class)
- Tuesday, March 22: 4-6 p.m. (Math 10-27, 4:00-6:15 PM class)
- Last day to add quarter-length classes: Saturday, October 8
- Last day to drop for a full refund or credit: Sunday, October 9
- Last day to drop a class with no record of grade: Sunday, October 9
- Last day to request pass/no pass grade: Friday, October 14
- Last Day to Drop with a "W": Friday, November 18
- College closed - No Classes: Friday, November 11 (Veteran's Day)

Thursday - Sunday, November 24-27 (Thanksgiving Holiday)

Tally Sheet For Calculating Course Points For Math 10
$\left.\begin{array}{|l|l|l|l|l|}\begin{array}{c}\text { WebAssignHomework } \\ \text { (100 points possible) }\end{array} & \begin{array}{c}\text { Quiz Pts } \\ \text { (100 points } \\ \text { possible) }\end{array} & \begin{array}{l}\text { Midterm and Final Exam } \\ (400 \text { points possible) }\end{array} & \begin{array}{c}\text { Worksheets/Lab Activities/Participation Points } \\ \text { Use the back of this page to list more } \\ \text { Participation/activity information }\end{array} \\ \text { (Add up Pts Possible from the last colu }\end{array}\right]$

To calculate your total points for the course: Add together 5 sums from above (WebAssign Homework, Quizzes, 3 best scores of 3Midterm and Final Exams, Final Exam, and Participation/Activity Points Earned )

Before taking the final exam, to check what your final grade could be, try out different final exam scores and repeat the process above to see the effect on your grade.

Your final grade will be based on the percentage of possible course points that you achieve based on the calculation that follows. Find the Course Grade that corresponds to your percentage grade.

Course percent score $=\frac{\text { Sum of your pts earned for the } 5 \text { categories }}{\text { Total of course pts possible for the } 5 \text { categories }}$


