Syllabus: Math 10.MP1 Elementary Statistics & Probability, Winter 2020

Math 10.MP1 Elementary Statistics & Probability   **Winter 2020**

Section MP1   CRN 35746   MTWThF   8:30- am – 10:20 am   MLC108

Instructor: Greg Stachnick

Contact Information:

	Email:	StachnickGregory@fhda.edu
	Phone:	408-857-6421

Office Hours:

Tuesday	10:45 am – 11:45 am
Wednesday	10:45 am – 11:45 am
	Or by appointment
	Location: MPS Tutorial Center (S41)

Course Counselor: Melissa Maturino

MPS math courses have an assigned counselor. We are very fortunate to have Melissa Maturino as our designated counselor. In addition to her counseling background, she is also a former MPS student.

Counselor Contact Information:

	Email:	MaturinoMelissa@deanza.edu
	Office:	S5-6A
	Phone:	408.864.8249

Counselor Office Hours: M – Th Hours TBD
                                           Or by appointment

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 (computers or 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.

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A course outline is available at
http://ecms.deanza.edu/outlineprogresspublic.html?catalogID=2175

Topics to Skip: include Venn Diagrams (Ch 3), Geometric, Hypergeometric, and Poisson Distributions (Ch 4), Central Limit Theorem for Sums (Ch 7) , Test of Single Variance (Ch 11)

Prerequisite:
None, although MATH 114 or equivalent with a grade of C or better will be helpful

Advisory:
EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273.

Required Materials

- **Textbook:**
Great news: your textbook for this class is available for *free* online!
Introductory Statistics from OpenStax , by Illowsky & Dean, ISBN 1-947172-05-0

You have several options to obtain this book:

  - *View online* (Links to an external site.)
  - *Download a PDF* (Links to an external site.)
  - *Download on iBooks* (Links to an external site.)

You can use whichever formats you want. Web view is recommended – the responsive design works seamlessly on any device. Hardcopies are available for purchase at the De Anza College Bookstore at a low cost.

- **Graphing Calculator:**
Recommended calculators are TI-83, TI-83+, TI-84 and TI-84+. Your phone is not your calculator. Phones will not be permitted during a quiz or test. Calculators can be *borrowed* from the Math Department. If you decide to purchase a calculator, I recommend the TI-84 series, since the embedded wizards make them much easier to use.

- **WebAssign subscription**: WebAssign is the on-line homework system we will be using. The access code for WebAssign will be provided to you for *free* during the second week of classes. *(WebAssign registration instructions will be provided separately)*

- **Class Notes:** We will use class notes that will be provided for free on a Google Drive. These class notes provide summaries of the textbook chapter materials, which include solved examples and problems we will work together during each class.

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Grading

1. **Homework:** Homework will be done in WebAssign. The WebAssign Course ID and specific registration instructions will be provided separately. Proficiency in mathematics comes only with frequent practice. Attending classes and completing homework assignments on time is very important in accomplishing this goal.

2. *Gone in 60 Seconds Daily Quiz:* Starting Wednesday January 8, during the first minute of class students will answer a single question based on previous day's class discussion or homework assignment. ***Students are required to bring a blank 3" x 5" index card to class to record their answers.*** Each question counts as one point. No exceptions for late arrivals. The only exceptions are days for which a Exam or Friday quiz is already scheduled. Gone in 60 Seconds quizzes will account for 50 points total. No make-ups for Gone in 60 Quizzes.

3. **Friday Quizzes:** Friday is Quiz Day. There will be a short quiz at the end of class each Friday (see tentative course schedule below) based on the homework assignments and class discussions for the week. Weeks for which an Exam has been scheduled will not have quizzes. If you have done all of the homework, attended class and ***paid attention***, you will be very well prepared. The lowest two quiz grades will be discarded (best five out of seven). No make-ups for quizzes.

4. **Exams:** There will be three exams and a cumulative final (see schedule below for dates). If you miss a midterm, you must schedule a make-up within one week.

5. **Projects:** There will be three required class homework projects/Labs.

6. **Lucy Tuesday**: A regularly scheduled event for the beginning of each Tuesday class

7. **Mindfulness Meditation:** An ungraded 20-minute activity each week

8. **Extra Credit Points:** There will be in class opportunities for extra credit, stay tuned and be there.
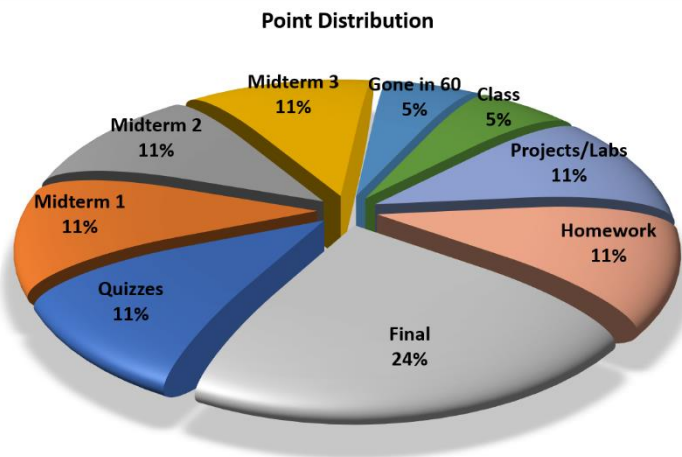
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9. Point Distribution

i.	Exams:	300 Points (100 points each)
ii.	Quizzes	100 Points (Best 5 out of 7, 20 points each)
iii.	Gone in 60 Seconds	50 Points
iv.	Class Work	50 Points
v.	Homework	100 Points
vi.	Lab Projects	100 Points (Three projects, scaled to 100 points)
vii.	Final	200 Points
	Total	900 Points

10. Letter Grade Breakdown

- A. 100% - 90%
- B. 89% - 80%
- C. 79% - 70%
- D. 69% - 60%
- F. 59% or below

Point Distribution

Midterm 3 11% | Gone in 60 5% | Class 5% | Midterm 2 11% | Projects/Labs 11% | Midterm 1 11% | Homework 11% | Quizzes 11% | Final 24%

Additional Resources

Free Tutoring: The Math Performance Success Tutor Center in Room S41 offers free tutoring on Mondays-Thursdays from 8:30 AM-6:30 PM and Fridays 8:30 Am – 12:30 noon. Arrangements for free group tutors are available. Make arrangements for group tutoring sessions with our counselor, Melissa.

Supplemental Resources: Search the web for specific class topics. You will find lots of completed problems, additional written and video explanations and some very clever YouTube videos: http://justmathtutoring.com/page17.html.

The Kahn Academy Website https://www.khanacademy.org/ also has some nice introductions to statistics and probability.

Academic Integrity:

Cheating will not be tolerated and will result in a grade of 0 for the assignment, quiz or exam and referral to the dean for academic discipline. Cheating includes but is not limited to: copying from other students, permitting other students to copy from you, plagiarism, submitting work that isn't your own, using notes that don't meet permitted specifications, continuing to write/erase on an exam/quiz after permitted time has ended, changing your exam/quiz paper after it's been graded and then requesting a grading correction. For more

information about De Anza College's policy on academic integrity see:
https://www.deanza.edu/studenthandbook/academic-integrity.html

Student Conduct:

A student who is disruptive will be asked to leave the class. A student who refuses to leave the room will be dropped from the class and will be reported for further action. Cell phones must be silenced and stowed away.

Attendance:

Regular class attendance is expected. Registered students missing any day the first week, without first notifying the instructor will be dropped from the course. After the first week, a student may be dropped from the class if she/he is absent three times, without first notifying the instructor. If you miss a quiz because you skipped class you will receive a zero for that assignment.   Dropping or withdrawal from the class due to hardship is the students' responsibility. A student who stops coming to class and does not drop will receive an "F" grade. It is the students' responsibility to inform the instructor if she/he is going to be absent and is responsible for any material covered/announcements made on the day of the absence. MPS students are required to sign a contract during the first class meeting. This contract will explain your commitments for class attendance, completing assignments and maintaining passing grades.

Communication:

The primary method of communication outside of class will be email (stachnickgregory@fhda.edu). Any student email correspondence with the instructor should include the course number and section number or time (i.e. Math 10.MP7) in the subject line. Also include our counselor, Khoa (MaturinoMelissa@deanza.edu), on the cc line. I will respond to emails within one business day.

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Tentative Winter 2020 Class Schedule
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	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 January	6 Introductions Ch 1	7 Ch 1	8 Ch 1	9 Ch 1	10 Ch 1/Ch 2 **Quiz 1**
Week 2 January	13 Ch 2	14 Ch 2	15 Ch 2	16 Ch 2	17 Ch 3 **Quiz 2 (1)**
Week 3 January	20 *MLK Day*	21 Ch 3	22 Ch 3	23 Ch 3	24 **Midterm 1**
Week 4 January	27 Ch 4	28 Ch 4	29 Ch 4	30 Ch 4	31 Ch 4 **Quiz 3 (2)**
Week 5 February	3 Ch 5	4 Ch 5	5 Ch 6	6 Ch 6	7 Ch 6 **Quiz 4**
Week 6 February	10 Ch 6	11 Ch 6	12 Ch 7	13 **Midterm 2**	14 *Presidents Day*
Week 7 February	17 *Presidents Day*	18 Ch 7	19 Ch 8	20 Ch 8	21 Ch 8 **Quiz 5**
Week 8 February	24 Ch 9	25 Ch 9	26 Ch 9	27 Ch 9	28 Ch 9 **Quiz 6 (3)**
Week 9 March	2 Ch 10	3 Ch 10	4 Ch 10	5 Ch 10	6 **Midterm 3**
Week 10 March	9 Ch 11	10 Ch 11	11 Ch 11	12 Ch 12	13 Ch 12 **Quiz 7**
Week 11 March	16 Ch 12	17 Ch 12	18 Ch 13	19 Ch 13	20 Final Review
Week 12 March	23	24	25 **Final Exam 7:00–9:00 am (4)**	26 **Final Exam Week**	27

(1) Sunday Jan 19: Last day to drop   (2) Friday Jan 31: Last day to request pass/no pass
(3) Fri Feb 28: Last day to drop with a W(withdraw)   (4) Wed Mar 25, Final Exam **7:00**-9:00 am

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Important Dates

January 6	**First day of winter quarter**
January 18	**Last day to add classes**
January 19	**Last day to drop classes for full refund or credit**
January 19	**Last day to drop classes without a W**
January 20	**Martin Luther King Jr. Holiday - Campus Closed**
January 31	**Last day to request "Pass/No Pass" for 12-week classes**
February 14-17	**Presidents' Holiday - Campus Closed**
February 28	**Last day to drop classes with "W"**
March 1	**Last day to file for winter degree or certificate**
March 23-27	**Final exams**
March 27	**Last day of winter quarter**

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<u>Student Learning Outcome(s):</u>

*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.