# Syllabus: Math 10.MP1 Elementary Statistics \& Probability, Fall 2019 

Math 10.MP7 Elementary Statistics \& Probability

Fall 2019

Section MP1 CRN 20970 MTWThF 8:30- am-10:20 am E33

## Instructor: Greg Stachnick

## Contact Information:

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

## Office Hours:

| Tuesday | 10:45 am $-11: 45 \mathrm{am}$ |
| :--- | :--- |
| Wednesday | 10:45 am -11:45 am |
|  | Or by appointment |
|  | Location: MPS Tutorial Center (S41) |

## Course Counselor: Khoa Nguyen

MPS math courses have an assigned counselor. We are very fortunate to have Khoa Nguyen continue as our designated counselor. In addition to his counseling background, Khoa also has a degree in mathematics, so he is an additional resource for help with homework.

## Counselor Contact Information:

| Email: | NguyenKhoa2@fhda.edu |
| :--- | :--- |
| Office: | S-41A |
| Phone: | $408-864-5664$ |
| Mobile: | $909-272-0865$ |

Counselor Office Hours: $\quad \mathrm{M}-\mathrm{F}$ 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

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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.

A course outline is available at http://ecms.deanza.edu/outlineprogresspublic.htm|?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 $\mathrm{TI}-83, \mathrm{TI}-83+$, $\mathrm{TI}-84$ and $\mathrm{TI}-84+$. Your phone is not your calculator. Phones will not be permitted during a quiz or test. Calculators can be borrowed from the Math Department.

- WebAssign subscription: 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


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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 September 25, 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" $\times 5$ " 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.
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.

## 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 (Two projects, 50 points each) |  |
| vii. | Final | 200 Points |

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10. Letter Grade Breakdown
A. 100\%-90\%
B. $89 \%-80 \%$
C. $79 \%-70 \%$
D. $69 \%-60 \%$
F. $59 \%$ or below

## Additional Resources

Free Tutoring: The Math Performance Success Tutor Center in Room S41 offers free tutoring on Mondays-Thursdays from 9:00 AM-5:30 PM and Fridays 9:00 Am - 12:00 noon. Arrangements for free group tutors are available. Make arrangements for group tutoring sessions with our counselor, Khoa.

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.

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## 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 (NguyenKhoa2@fhda.edu), on the cc line. I will respond to emails within one business day.

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Tentative Fall 2019 Class Schedule
Math 10.MP1 Elementary Statistics and Probability

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Week 1 <br> September | 23 Introductions Ch 1 | $\text { Ch } 1 \quad 24$ | Ch $1 \quad 25$ | $\text { Ch } 1 \quad 26$ | Ch 1/Ch $2{ }^{27}$ Quiz 1 |
| Week 2 <br> Sep/Oct | Ch $2 \quad 30$ | $\text { Ch } 2 \quad \text { Oct } 1$ | Ch $2 \quad 2$ | Ch $2 \quad 3$ | $\begin{array}{ll} \hline & 4 \\ \text { Ch } 3 \\ \text { Quiz } 2 & \text { (1) } \\ \hline \end{array}$ |
| Week 3 October | Ch 3 7 | Ch $3{ }^{8}$ | Ch $3 \square 9$ | Ch $3 \quad 10$ | $\text { Exam } 1{ }^{11}$ |
| Week 4 October | Ch $4 \quad 14$ | Ch $4 \quad 15$ | Ch $4 \quad 16$ | Ch $4 \quad 17$ | $\begin{array}{cc} \hline & \\ \text { Ch } 4 & 18 \\ \text { Quiz } 3 & \text { (2) } \\ \hline \end{array}$ |
| Week 5 October | Ch $5 \sim 21$ | Ch $5 \xrightarrow{22}$ | Ch 6 23 | Ch $6 \xrightarrow{24}$ | $\begin{gathered} \text { Ch } 6 \\ \text { Quiz } 4 \end{gathered}$ |
| Week 6 Oct/Nov | $\begin{array}{ll} \hline \text { Ch } 6 & 28 \\ \hline \end{array}$ | Ch $6 \quad 29$ | Ch $7 \quad 30$ | Ch $7 \quad 31$ | $\begin{aligned} & \quad \text { Nov } 1 \\ & \text { Exam } 2 \end{aligned}$ |
| Week 7 <br> November | $\text { Ch } 7 \quad 4$ | Ch $8 \quad 5$ | Ch 8 6 | Ch $8 \quad 7$ | $\begin{array}{cr} \hline & 8 \\ \text { Ch } 9 & \\ \text { Quiz } 5 & \\ \hline \end{array}$ |
| Week 8 <br> November | Veterans $^{11}$ Day | Ch 9 12 | $\begin{array}{ll}  \\ \text { Ch } 9 & 13 \end{array}$ | Ch $9 \quad 14$ | $\begin{array}{cc} \hline & 15 \\ \text { Ch } 9 \\ \text { Quiz } 6 & \text { (3) } \end{array}$ |
| Week 9 <br> November | $\begin{array}{ll}  & 18 \\ \text { Ch } 10 & \end{array}$ | Ch $10 \quad 19$ | Ch 10 | Ch $11 \quad 21$ | Exam $3^{22}$ |
| Week 10 <br> November | $\text { Ch } 11 \quad \mathbf{2 5}$ | Ch 11 26 | Ch 12 <br> Quiz 7 | $\begin{array}{r} 28 \\ \text { Thanksgiv } \end{array}$ | ing Break ${ }^{29}$ |
| Week 11 <br> December | Ch $12 \quad \mathbf{2}$ | Ch 12 3 | Ch $13 \quad 4$ | Ch 13 5 | Final Review |
| Week 12 <br> December | 9 Final Exa | m Week | $\begin{aligned} & \text { Final Exam } \\ & \text { 7:00-9:00 am (4) } \end{aligned}$ | 12 | 13 |

(1) Sunday Oct 6: Last day to drop
(2) Friday Oct 18: Last day to request pass/no pass
(3) Fri Nov15: Last day to drop with a W(withdraw)
(4) Wed Dec 11, Final Exam 7:00-9:00 am

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## Important Dates

September 23
October 5
October 6
October 6
October 18
November 11
November 15
Nov 28-Dec 1
December 1
December 9-13
December 13

First day of fall quarter
Last day to add classes
Last day to drop classes for full refund or credit
Last day to drop classes without a W
Last day to request "Pass/No Pass"'
Veterans Day holiday: Campus closed
Last day to drop classes with 'W"
Thanksgiving holiday: Campus closed
Last day to file for fall degree or certificate
Final exams
Last day of fall quarter

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## 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.

