Math 10.MP1 Elementary Statistics & Probability

Fall 2018

Section MP1 CRN 20970 MTWThF 8:30- am - 10:20 am E36

Instructor: Greg Stachnick

**Contact Information:** 

Email: StachnickGregory@fhda.edu

**Phone:** 408-857-6421

**Office Hours:** 

Tuesday 10:45 am - 11:45 amWednesday 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:** M - F 10:30 am - 11:30 am

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.

A course outline is available at <a href="http://ecms.deanza.edu/outlineprogresspublic.html?catalogID=2175">http://ecms.deanza.edu/outlineprogresspublic.html?catalogID=2175</a>

**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:

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.

### 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.)
- <u>Download a PDF</u> (Links to an external site.)
- <u>Download on iBooks</u> (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.

• **WebAssign subscription** for one quarter can be purchased in our campus bookstore or online at <a href="www.webassign.net">www.webassign.net</a>. (Access to WebAssign is described in the **Homework** section on page 3.)

### Grading

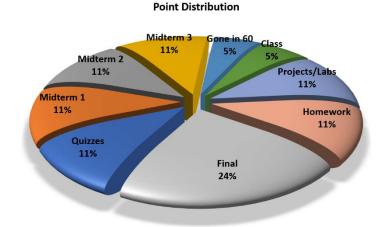
- 1. Homework: Homework will be done in WebAssign. The WebAssign Course ID and specific registration instructions will be provided separately. Proficiency in mathematics comes only with frequent practice. Attending classes and completing homework assignments on time is very important in accomplishing this goal.
- 2. Gone in 60 Seconds Daily Quiz: Starting Wednesday April 11, 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" 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 midterm or Friday quiz is already scheduled.
- **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 a midterm has been scheduled will not have guizzes. 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 midterm 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. Extra Credit Points: There will be in class opportunities for extra credit, stay tuned and be there.

### 8. Point Distribution

i.	Midterms:	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
٧.	Homework	100 Points
vi.	Lab Projects	100 Points (Two projects, 50 points each)
vii.	<u>Final</u>	200 Points
	Total	900 Points

### 9. 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 <a href="https://www.khanacademy.org/">https://www.khanacademy.org/</a> 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 (<a href="mailto:stachnickgregory@fhda.edu">stachnickgregory@fhda.edu</a>). Any student email correspondence with the instructor should include the course number and section number or time (i.e. Math 10.MP1) in the subject line. Also include our counselor, Khoa, on the cc line. I will respond to emails within one business day.

# Tentative Spring 2018 Class Schedule Math 10.MP1 Elementary Statistics and Probability

		T Elementary Statistics and Frobability			
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 September	Sep 24 Introductions Ch 1	<b>25</b> Ch 1	<b>26</b> Ch 1	27 Ch 1	28 Ch 1/Ch 2 Quiz 1
Week 2 October	Oct 1 Ch 2	<b>2</b> Ch 2	<b>3</b> Ch 2	4 Ch 2	5 Ch 3 Quiz 2 (1)
Week 3 October	8 Ch 3	<b>9</b> Ch 3	<b>10</b> Ch 3	11 Ch 3	12 Midterm 1
Week 4 October	<b>15</b> Ch 4	<b>16</b> Ch 4	17 Ch 4	<b>18</b> Ch 4	19 Ch 4 Quiz 3 (2)
Week 5 October	<b>22</b> Ch 5	<b>23</b> Ch 5	<b>24</b> Ch 6	<b>25</b> Ch 6	26 Ch 6 Quiz 4
Week 6 Oct/Nov	<b>29</b> Ch 6	<b>30</b> Ch 6	<b>31</b> Ch 7	<b>Nov 1</b> Ch 7	2 Midterm 2
Week 7 November	<b>5</b> Ch 8	6 Ch 8	<b>7</b> Ch 8	<b>8</b> Ch 8	9 Ch 9 Quiz 5
Week 8 November	12 Veterans Day	<b>13</b> Ch 9	<b>14</b> Ch 9	<b>15</b> Ch 9	16 Ch 9 Quiz 6 (3)
Week 9 November	<b>19</b> Ch 10	<b>20</b> Ch 10	21 Midterm 3	22 Thanks G	23 iving Break
Week 10 November	<b>26</b> Ch 10	<b>27</b> Ch 11	28 Ch 11	<b>29</b> Ch 12	30 Ch 12 Quiz 7
Week 11 December	<b>Dec 3</b> Ch 12	4 Ch 12	<b>5</b> Ch 13	6 Ch 13	7 Final Review
Week 12 December	10	11	Final Exam 7:00–9:00 am (4)	13 Final Exa	14 <mark>am Week</mark>

<sup>(1)</sup> Sunday Oct 7: Last day to drop

<sup>(2)</sup> Friday Oct 19: Last day to request pass/no pass

<sup>(3)</sup> Fri Nov16: Last day to drop with a W (withdraw) (4) Wed Dec 12 Final Exam 7:00-9:00 am

# Important Dates September 24 First day of Fall Quarter October 6 Last day to add classes October 7 Last day to drop classes with no record of "W" October 19 Last day to request "Pass/No Pass" November 12 Veterans Day - Campus Closed November 16 Last day to drop classes with a "W" November 22-25 Thanksgiving Holiday - Campus Closed

# December 10-14

**Final Exams** 

# December 14

Last Day of Fall Quarter

# **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.