DeAnza College

Math 10.30 – Introductory Statistics — Summer 2023
Meets: MTWTh, 3:00 PM to 5:15 PM
Room: MLC260

Instructor: Lilit Mazmanyan
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Course Description
This course is an 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. This Statistics course is a required lower-division course for students majoring or minoring in many disciplines such as data science, nursing, business, and others.

Requisites
- *Prerequisite:* Intermediate Algebra (MATH 109, MATH 114 or MATH 130) or equivalent.
- *Note:* Not open to students with credit in MATH 10H.
- *Advisory:* EWRT 211 and READ 211, or ESL 272 and 273.

Textbook
Barbara Illowsky and Susan Dean, *Introductory Statistics*, OpenStax College, 2013, ISBN: 978-1938168208
- This is an open source textbook which is available through our Canvas course and free online: http://openstaxcollege.org/textbooks/introductory-statistics/get
- Printed edition can be purchased or rented at the DeAnza College bookstore.

Supporting Textbook
Maurice A. Geraghty, *Inferential Statistics and Probability-A Holistic Approach*, De Anza College, 2018.
http://nebula2.deanza.edu/~mo/holistic/HolisticStatisticsRev180817.pdf

Calculators and Computer Software
- A TI-83 PLUS, TI-84 or TI-84 PLUS graphing calculator is required.
- Cell phones or other devices CANNOT be used in place of a permitted calculator on any quiz or examination.
- Graphing calculator, computer software Minitab or Excel can be used to complete the Laboratory assignments.

Homework (HW)	• Homework must be completed online using WebAssign. • You need a Class Key and Access Code for WebAssign. • **CLASS KEY** to register on WebAssign **WILL BE SENT TO YOU BY EMAIL.** • You must self-register at http://www.webassign.net to use the WebAssign. • **ACCESS CODE** can be purchased online after signing in WebAssign or through. DeAnza College bookstore • Cost to access WebAssign is about $50 for the quarter. • WebAssign is free for two (2) weeks of the quarter only. • After the due date/time, HW cannot be submitted for credit.

	• After the due date/time, the answer key is available online. • There are thirteen (13) chapter homework assignments which are distributed between ten (10) homework due dates. • The lowest homework grade will be dropped. • There will be ungraded homework assignments from textbook.
Group Work (GW)	• Group Work assignments must be submitted on Canvas or WebAssign • Group Works are assigned randomly during class times. • May be used graphing calculator or statistical software Minitab or EXCEL. • Must be done in groups of at least two and no more than four. • LATE group work will be penalized by 20% of the grade. • No group work grade can be dropped.
Quizzes (Q)	• Quiz is closed book. • There are four quizzes based on classwork and homework problems. • One page of notes, HANDWRITTEN, (one side 8.5 x 11-inch) is allowed. • NO MAKE-UP quizzes are given. • Missed quiz is graded as a zero (0). • The lowest quiz score will be dropped.
Exams & Final Exam (EX, FE)	There will be four (4) examinations. • EX 1, 2 & 3 are one hour each and Final exam is two (2) hours. • EX 1, 2 & 3 and the FE dates are on the course schedule. • Exams are closed book. • One sheet of notes (double-sided 8.5 x 11-inch), HANDWRITTEN, is allowed for the Exams 1, 2 & 3. • Two sheets of notes (double-sided 8.5 x 11-inch), HANDWRITTEN, are allowed for the Final Exam. • Bring graphing calculator, spare batteries, pencils, ruler, sharpener, and eraser. • There are NO MAKE-UP examinations unless it is due to Covid. • An absence from any examination earns a grade of zero (0). • You MUST take the final exam to pass the course.

Grading

Students will be graded on homework (HW), group works (GW), quizzes (Q), and exams (EX1, 2 & 3, FE).

Distribution of weights for each category

Category	% Weight on Final Grade
Homework	5 %
Group Work	5 %
Quiz	10 %
Exam 1	20 %
Exam 2	20 %
Exam 3	20 %
Final Exam	20 %

Grading Scale

			A	94-100		A-	90-93
B+	87-89		B	83-86		B-	80-82
C+	77-79		C	70-76		D	60-69
						F	<60

Extra Credit

During the course you will have opportunities for extra credits. There will be extra problems included in the coursework.

Important Dates and Deadlines (https://www.deanza.edu/calendar)

Monday	**July 3**	First day of Summer Quarter 2023
Tuesday	**July 4**	Independence Day holiday, no class
Wednesday	**July 5**	Last Day for Drops w/ Refund
Wednesday	**July 5**	Last Day for Drops w/o W
Monday	**July 10**	Last Day for Adds
Wednesday	**August 1**	Last Day for Drops
Thursday	**August 10**	Final examination

Online Education Center

- Student Resource Hub: Visit this site for tips, guides and answers to your questions about using Canvas, Zoom and other online learning tools that your classes may be adopting.
- Staying Organized: This webpage has advice for planning and staying on top of your online coursework.
- Canvas Help: Need technical support with Canvas? This page has information on how to get help.
- More Student Resources: Visit this page for more links and tips.

California Virtual Campus

- Get Ready for Online Learning: This website has videos about getting "tech ready," managing your time, communicating with instructors and more.

Student services and support

https://www.deanza.edu/online-spring/#Services

- Tutoring and Library Help
- Computers and Tech Products
- Internet Access

- Food and Financial Assistance
- Health and Psychological Services

Attendance, Drops or Withdrawals

- Regular online attendance is essential for success in the course.
- You must not miss a class in the first week of the quarter or you will be dropped.
- It is the student's responsibility to drop or withdraw from this course by the college deadlines.

Academic Honesty and Discipline Policy:

Students are expected to abide by the DeAnza College Code of Conduct and not participate in academic dishonesty.
https://www.deanza.edu/policies/academic_integrity.html

Student Success Center

http://deanza.edu/studentsuccess/mstrc/
Hours of online Zoom Tutoring Center are Monday to Thursday 10:00-5:00 PM.
The SSC provides free tutoring services such as individual, drop-in, groups, in-class and workshops.
For individual tutoring, fill out a weekly individual application:
http://deanza.fhda.edu/studentsuccess/mstrc/weekly_ind.html
For group tutoring, contact to Helen at nguyenhelen@deanza.edu.

Disability Support Services

https://www.deanza.edu/dsps/dss/
Students with disabilities who qualify for academic accommodations must provide a notification from the Disability Support Services (DSS) and discuss their specific needs with the instructor at the beginning of the quarter.
For information or questions about eligibility, support services or accommodations to disability (physical or learning disability) please contact Disability Support Services (DSS).
Phone number: (408) 460-7681
Email: dss@deanza.edu

Tentative Schedule

	Monday	Tuesday	Wednesday	Thursday
Week 1	July 3 **Syllabus/Chapter 1** Sampling and Data	July 4 Independence Day Holiday **No class**	July 5 **Chapters 1&2** Sampling and Data & Descriptive Statistics	July 6 **Chapter 2** Descriptive Statistics
Week 2	July 10 **Chapters 2&3** Probability Topics **Quiz 1**	July 11 **Chapters 3&4** Probability Topics & Discrete Random Variables	July 12 **Chapter 4** Discrete Random Variables	July 13 **Exam 1 (one hour)** **Chapters 1-4** **Chapter 5** Continuous Random Variables
Week 3	July 17 **Chapters 5&6** Continuous Random Variables & Normal Distribution	July 18 **Chapters 6&7** Normal Distribution & Central Limit Theorem	July 19 **Chapter 7** Central Limit Theorem **Quiz 2**	July 20 **Chapter 8** Confidence Interval
Week 4	July 24 **Chapter 8** Confidence Interval	July 25 **Chapter 9** Hypothesis Testing with One Sample **Quiz 3**	July 26 **Chapter 9** Hypothesis Testing with One Sample	July 27 **Exam 2 (one hour)** **Chapters 5-8** **Chapter 10** Hypothesis Testing with Two Samples
Week 5	July 31 **Chapter 10** Hypothesis Testing with Two Samples	August 1 **Chapter 10** Hypothesis Testing with Two Samples **Quiz 4**	August 2 **Chapter 11** Chi-Square Distribution	August 3 **Exam 3 (one hour)** **Chapters 9-11** **Chapter 11** Chi-Square Distribution
Week 6	August 7 **Chapter 12** Linear Regression and Correlation	August 8 **Chapter 13** F-Distribution and One-Way ANOVA	August 9 **Chapter 13** F-Distribution and One-Way ANOVA **Review Problems**	August 10 **Final Exam** **(two hours)** **Chapters 1-13** **3:00 PM - 5:00 PM**

- Any change in schedule is announced during class. Students are responsible for keeping track of schedule changes.
- **HW** assignments can be found on **WebAssign**. They are due each Sunday.
- **Group Works** are assigned randomly during the class times.
- Course materials (syllabus, lecture presentations, quiz/exam answer keys and additional resources) are uploaded onto *Canvas*. It is accessible to you via MyPortal as you are enrolled in the course. You can also access into Canvas using direct link (https://deanza.instructure.com) with your MyPortal login credentials.

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 evaluate conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

Office Hours: