Math 10: Elementary Statistics
Winter 2021, CRN 32938, Section 37Z
Tuesday and Thursday 4 PM to 6:15 PM
*This is an asynchronous class.

Instructor Information

Instructor:	Andrew Jianyu YU
Email:	yujian@fhda.edu
Office Location:	E37 (E Quad, Room 37)
Office Hours:	Tuesday and Thursday 12:00 PM to 1:30 PM

*This class is asynchronous and fully online. There are no in-person meetings. The due date of all the assignment follows the U.S. Pacific Standard Time (PST). Please check your time zone and the difference if you are taking this class outside of the Pacific Standard Time zone.

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.

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.

Math 10 Course Syllabus   Winter 2021
CRN 32938, Section 37Z, 5 Units

Textbook

Introductory Statistics from OpenStax by Illosky & Dean
This is an opened-source textbook and it is free.
This is the link to the PDF textbook.
https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/IntroductoryStatistics-OP_bGvVITN.pdf
You *do not* need to buy a hard copy of the book. The PDF of
each chapter is posted on Canvas. All the homework, quizzes, and exams will
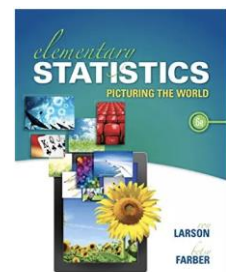be completed on WebAssign.

Recommended Materials (Not required for purchase)
Elementary Statistics: Picturing the World 6th Edition by Ron
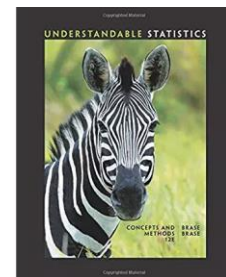Larson and Betsy Farber; Publisher: Pearson 6th Edition
(January 12, 2014); 704 pages
ISBN-10: 0321911210 and ISBN-13: 978-0321911216

Understandable Statistics: Concepts and Methods by Charles
Henry Brase and Corrinne Pellolo Brase; Publisher: Cengage
Learning 12th edition (January 1, 2017); 839 pages
ISBN-10: 1337119911 and ISBN-13: 978-1337119917

Required Calculator
Graphing calculator is
required for the course.
**Using TI-84 Plus or 84
Plus CE is highly
recommended.** You are
required to bring a physical
calculator to the exam, and
sharing calculator is

TI-83 Plus   TI-84 Plus   TI-84 Plus CE   TI-Nspire

considered as cheating incident. Using the calculator apps on your phone is
strictly prohibited on the exam. *Do not* purchase the TI-Nspire Graphing
Calculator (around $150) because it is too advanced for this course.
Instructions will not be provided for TI-Nspire. In addition, if you are using a
TI-89, you are responsible for figuring out where to look for the specific
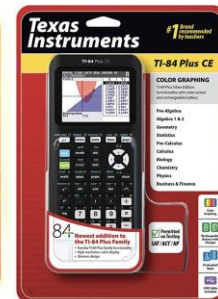functions.

Technical Requirements

- **Your Email:** Please check your email regularly. If possible, connect your email with an app in your smartphone. You are welcome to ask me any questions related to lecture, homework, or personal emergency through email. **Please following the format of the subject line stated below.**
  "Math 10: _____"
  You write your inquiry after the colon.
- **Canvas (Main System):** Lecture notes, announcements, and grades can be found on Canvas. This is the main learning management system in this course. You are expected to check Canvas in a regular basis to keep up with the course. A new **module** will be created every week to list all the lectures and the assignments.
- **WebAssign (Work System):** Homework, quizzes, and exams will be assigned and graded on WebAssign. If an assignment is required to be completed on paper, you are required to scan your work and upload it to Canvas. WebAssign is **not free**. You must pay for your own account before the free trial period ends. Otherwise, you will not be able to complete any assignments until you make a payment.

WebAssign Class Key and Self-Enrollment

Go to www.webassign.net to register for your account. Please take the advantage of the free trial and do not pay anything yet. All the purchases are non-refundable.

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Your name on WebAssign must match your name on Canvas. If you failed to do so, your scores will not be counted toward your grade. Do not capitalize your name.

All the homework, quizzes, and exams will be held on WebAssign. If you are still on your free trial, pay the full price before the deadline. Otherwise, you will be removed from the system. Be aware that the due dates follow the U.S. Pacific Standard Time (PST). If you are outside of this time zone, please check the difference between the two time zones.

Scanning Your Paperwork

If an assignment is expected to finish on paper, you have to download the assignment from Canvas, print the assignment, and completed the assignment. If you do not have a scanner at home, use a free app called Genius Scan.

It allows you to take pictures of your work and merge multiple pictures into one PDF document. *Submitting multiple pictures is not allowed. Points will be deducted if you do so.*

Asynchronous Lectures and Expected Preparation
All the lectures will be recorded in advanced and posted on my YouTube channel called "**Lemon Math**". All the lecture videos will be stored in a **playlist** called "**Elementary Statistics**". If you wish, click "subscribe" to see the latest update of the videos or my channel.
Your instructor will provide links to each lesson in a **new module on Canvas weekly**. You can either watch the videos on Canvas or click on the videos to watch them on my channel. Since all the lectures are pre-recorded, we do not need to meet during the hours indicated on the first page.

Canvas
There are a few places that you have to visit frequently on Canvas.
- **Modules**
  A new module will be created every week. All the lectures and the assignments will be clearly listed on the module.
- **Files**
  If I want to share lecture notes, tables, or any documents with you. The documents will be posted on the Files tab. At this point. The syllabus is posted on Files.
- **Discussion**
  If we want to have a discussion regarding any topics, we will do this in the Discussion tab.

Attendance
The course is in a virtual mode. You are expected to maintain a good self-discipline to finish the assignments on time because late works will receive no credits.

Homework, 15% of the Course Grade
Problems will be assigned from each section taught in lecture. You are required to finish most of the homework on WebAssign. If an assignment is required to be written on paper, you have to scan your work, merge all the images into one PDF document with multiple pages, and submit to Canvas. The lowest homework score will be dropped at the end of the course.

Quiz, 15% of the Course Grade
A quiz will be assigned and graded on WebAssign at the due date of every homework. All the quizzes are open-book and open-notes. Quiz is an individual assignment. You are required to do your own work. Group-work is strictly prohibited. The lowest quiz score will be dropped at the end of the course.

Midterm, 40% of the Course Grade (Two midterms in this course)
All the midterms will be assigned and graded on WebAssign. Midterm date will be announced in advanced. All the midterms are open-book and open-notes. Midterm is an individual assignment. You are required to do your own work. Group-work is strictly prohibited. Dropping the lowest scare is not applicable on midterms. If you seek for assistances to complete the exam, your exam score is zero and you will get an F in this course.

Final Exam, 30% of the Course Grade
A comprehensive final exam will be assigned and graded on WebAssign. Although this is also an open-book and open-notes exam, you must do your own work. Group-work is strictly prohibited. If you seek for assistances to complete the exam, your exam score is zero and you will get an F in this course.

Policy Check Point:
- All the lectures are pre-recorded and are posted in weekly module on Canvas. We will not meet during the class hours.
- The due dates follow the United States Pacific Standard Time (PST). If you are taking this course outside PST zone, please check the difference between the two time zones.
- You are expected to check the due dates on your WebAssign account at least once a day to plan accordingly. Also, you are expected to check our Canvas page to see announcements and week module regularly.
- Your instructor do not negotiate due dates and do not accept late work, especially sending late work through email for credits.

Tutoring at the Student Success Center (SSC)

The Student Success Center (SSC) has moved services into virtual rooms via Zoom for all forms of tutoring and workshops. Please visit the following website for details. https://www.deanza.edu/studentsuccess/

Since this class is fully online and you are doing all the assignments at home, your instructor will not send any assignments to the SSC. You will not be using their service/location to take exams. You will have more than 2 days to take an exam in this class.

Grading Rubrics

Your course grade will be assigned in the following standard:

A: 100% to 92%	A-: 91% to 90%	
B+: 89% to 86%	B: 85% to 82%	B-: 81% to 80%
C+: 79% to 74%	C: 73% to 70%	
D: 69% to 60%	F: below 60%	

Extra Credit Assignment

There are no extra credit assignments in this course to improve your grade. Please do not ask for any.

Academic Integrity

Academic dishonesty will not be tolerated. Any student attempting to defraud the instructor on a quiz, exam, final exam, or any other assessment item designated as an individual assignment will receive a zero on that assignment. This score is irreplaceable. If a cheating incident is detected on your work, the rest of your works in the course will be closely monitored and examined. All the assistant seekers and assistant providers will be reported to the college.

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Topics To Be Covered in This Course:

- Introduction to Statistics
- Descriptive Statistics
- Elementary Probability Theory
- Discrete Random Variable
- Continuous Random Variable
- Normal Distribution & Central Limit Theorem
- Confidence Interval (One-Sample & Two-Sample)
- Hypothesis Testing (One-Sample & Two-Sample)
- Chi-Square
- Linear Regression Analysis
- F-Distribution and One-Way ANOVA

Academic Calendar:

January 4th: First day of winter quarter

January 18th: Martin Luther King Jr. Holiday – campus closed

February 12, 13, 14, and 15th: President's Day – campus closed

February 26: Last day to drop classes with "W"; please read the important notes below regarding the withdrawal policy. To withdraw from this class, go to portal where you register this class, change the status from "registered" with "withdraw". After you are done, please double check your status.

March 1: Last day to file for winter degree or certificate.

March 22 to 26: Final exams

March 26: Last day of winter quarter

Important Note: It is student's responsibility to drop or withdraw the class if that student decides not to finish the class. After the last day to withdraw is passed, student cannot withdraw from the class.

The professor reserves the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

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.