**Math 10: Elementary Statistics
Fall 2021, CRN 05011, Section 57Z
This class is asynchronous and has no
assigned meeting hours.**

Instructor Information

Instructor:	Andrew Jianyu YU
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Office Location:	E37 (E Quad, Room 37), Campus Closed
Virtual Office Hours:	Monday and Wednesday 1PM to 3PM via Zoom

This is an online class. 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

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.

Prerequisite

Intermediate Algebra (MATH 109, MATH 114 or MATH 130) or equivalent. Advisory: EWRT 211 and READ 211, or ESL 272 and 273.

Required Textbook
Introductory Statistics from OpenStax by Illosky & Dean
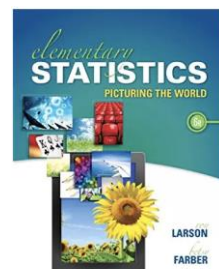This is an opened-source textbook and it is free.
You *do not* need to buy a hard copy of the book. The PDF of
each chapter is uploaded to Canvas. All the homework,
quizzes, and exams will be completed on WebAssign.

Recommended Materials
Elementary Statistics: Picturing the World 6th Edition by Ron
Larson and Betsy Farber; Publisher: Pearson 6th Edition
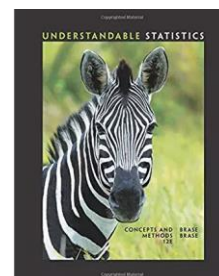(January 12, 2014); 704 pages
ISBN-10: 0321911210 and ISBN-13: 978-0321911216

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
          Do not purchase these 2 textbooks.

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
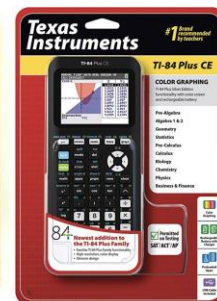too advanced for this course. Instructions will not be provided for TI-Nspire.

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.** <mark>**"Math 10: _____"**</mark> **You write your inquiry after the colon.**

- **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. The **first module** on Canvas contains a link to register your WebAssign account and another link to access to WebAssign. Alternatively, you can login WebAssign on your web browser though the link https://www.webassign.net/.

- **Canvas (Main Learning Management System):** WebAssign has been integrated to Canvas.Each weekly **module** contains the lecture videos and the weekly assignment. The first module has 3 links – the first link for register your WebAssign account, the second link for accessing WebAssign from Canvas, and the third link for Cengage technical support. There are 2 ways to access an assignment. The first way is to click on the assignment on Canvas, it will directs you to WebAssign. The second way is to login WebAssign using the link above. **Scores on WebAssign will automatically roll over to the grade book on Canvas. At least one homework and one quiz will be assigned weekly. It is strongly recommended that you check your WebAssign account frequently because late assignments will count as no credits.**

WebAssign Class Key and WebAssign-Canvas Integration

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 purchases are non-refundable.** There is no class key for this course because WebAssign has been integrated to Canvas. **Make sure your name on WebAssign matches your official name on Canvas.** Note, if you have a name that you preferred to be called but this name is not in the school system, do not use it on WebAssign.

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.*

Lectures and Expected Preparation

All the lectures are pre-recorded and uploaded on Canvas. Please take a couple minutes to explore the first 3 modules on Canvas. Students are expected to take notes while watching the videos. Most importantly, this is a transferred-level math course. Do not expect your instructor to explain all the homework problems in lectures. When you encounter problems that require profound thoughts and interpretation, think before you ask.

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, 10% 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. For all written assignments, you must scan all the pages and merge them into one PDF document. Submit that PDF to Canvas.

Quiz, 15% of the Course Grade

A quiz will be assigned and graded on WebAssign at the due date of each 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.

Midterm, 40% of the Course Grade (Proctorial Will be Enforced)

There are 2 midterms in this course, and both 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, 35% of the Course Grade (Proctorial Will be Enforced)

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.

Late Work = Zero Credit; Every Score Counts

Late work are not acceptable, and there is no exception. Do not ask for any extensions. Every score counts, and your lower score in all types of assignments mentioned above will **not** be dropped.

Enforcing Proctorial on Midterms and Final Exam

A laptop or desktop (not including tablet and smart phone): Although you will be taking midterms and finals at home, Instructor will be using Proctorial to proctor the exam. You are required to have a laptop or desktop with a web camera, audio, and stable Internet connection. Tablets and smart phones (e.g. iPad and iPhone) will not work. You must have all these equipment to take

midterms and final. While you are taking your exams on WebAssign. Proctorial will record everything happened on your screen. The camera and audio will record everything behind you. You will also need to hold your photo identification (student ID is preferred, driver's license is not preferred since your address is written on the card) to prove that you are the actual student taking the test. The exams are open book and open notes. Proctorial prevents student hires another professional to take the midterms and finals. Proctorial will record everything and save it. I will review the videos if I found any suspicious activities on your exam.

Check Points:

- All the lectures are pre-recorded and are posted in weekly module on Canvas.
- Homework 10%, Quiz 15%, Midterm 40%, Final 35%; Zero credit to all the late and missing work, no exception.
- 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.
- Comparing to homework, you will have much fewer attempts on quizzes and exams. Please solve the problems on a separate sheet of paper and double-check your work before submitting your answer to WebAssign. Additional attempts will not be granted for any reasons.

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 93%	A-: 92% to 90%	
B+: 89% to 87%	B: 86% to 83%	B-: 82% to 80%
C+: 79% to 75%	C: 74% to 70%	
D: 69% to 60%	F: below 60%	

All the cut-offs are not negotiable. For examples, 89% is not an A-minus and 69% is not a C. Applying for UCs, top-ranking universities, or scholarships are not a reason to ask for a higher grade.

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. *For example, bringing a quiz or an exam problem to a tutor is considered as cheating. Posting a quiz or an exam problem to websites such as Chegg, Course hero, or a forum is considered as cheating.*

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:

September 20: First day of fall quarter

October 2: Last day to add classes

October 3: Last day to drop classes without a W

November 11: Veteran Day holiday, campus closed

November 12th: 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.

November 25-28: Thanksgiving holiday

December 6-10: Final exams week

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.

Grades must be submitted by Wednesday, December 15th, by midnight

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.