

Math 10: Elementary Statistics & Probability

Fall 2022, CRN 22353, Section 27

Location: G5

Monday and Wednesday 4:00 PM to 6:15 PM

### **Instructor Information**

Instructor:	Andrew Jianyu Yu	
Email:	yujian@fhda.edu	
Office Location:	E37 (E Quad, Room 37)	
Office Hours:	Monday to Thursday	
	12:30PM to 1:30PM (on campus)	

# **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 (Uploaded to Canvas, see Files)

**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.



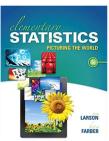
#### **Recommended Materials**

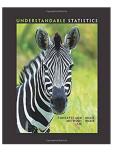
Elementary Statistics: Picturing the World 6th Edition by Ron Larson and Betsy Farber; Publisher: Pearson 6th Edition (January 12, 2014); 704 pages

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









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.

"Math 10 27: \_\_\_\_\_"

You write your inquiry after the colon. For example, Math 10 27: Request Extension for Homework 5

- **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 <a href="https://www.webassign.net/">https://www.webassign.net/</a>.
- 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 <a href="www.webassign.net">www.webassign.net</a> (or visit the direct link in the first module on Canvas) 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.

Please capitalize the first letter of your first and last name. For example, type "Andrew" instead of "andrew".

# **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.

#### Canvas

There are a few places that you have to visit frequently on Canvas.

- Modules
  - Each weekly module shows the notes and homework of that week.
- Files
  - Notes, books, and syllabus
- Discussion

If we want to have a discussion regarding any topics, we will do this in the Discussion tab.

### Attendance

Since this is an in-person course, attendance will be taken in every meeting. Students who missed 3 meetings will be dropped from the course.

### 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 written assignments, you have to scan your work, merge all the images into one PDF document, and submit to Canvas.

### Quiz & Pop Quizzes, 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. A random pop quiz may be given at the last 15 minutes of a lecture. Pop quiz is based on the materials covered within that lecture. You are allowed to use any notes to take the pop quiz. Be aware that pop quizzes are individual work.

Every homework and quiz score counts. Lowest score will not be dropped. Every student has one chance to receive one extension on homework and one extension on quizzes without penalties. This extension does not apply to midterms, final exam, and the last homework/quiz. More importantly, your one-time extension must be redeemed within 7 days after the due date. For example, if homework 1 is due on October 1st at 11:59pm, the deadline to request an extension is October 8th at 11:59pm.

The incident of falsifies information for financial aid is increasing in every school district. If you do not complete the first week's assignment or having no activities on Canvas, you will be dropped from the course.

## Midterm, 40% of the Course Grade (4th and 8th week)

The exam will be assigned and graded on Canvas. Every student is required to take the exam in class. Please bring your fully charged tablet or laptop to class. You are allowed to bring 3 sheets (6 pages total, front of back) of notes. The notes can be typed or handwritten. Sharing calculator, tablet, or laptop is strictly prohibited and considered as cheating. All the exams are individual work. Students who cheat, plagiarize or help someone else cheat will be given a zero on the exam and a failing grade in the course.

# Final Exam, 35% of the Course Grade

The final exam will be assigned and graded on Canvas. Every student is required to take the exam in class. Please bring your fully charged tablet or laptop to class. You are allowed to bring 5 sheets (10 pages total, front of back) of notes. The notes can be typed or handwritten. Sharing calculator, tablet, or laptop is strictly prohibited and considered as cheating. All the exams are individual work. Students who cheat, plagiarize or help someone else cheat will be given a zero on the exam and a failing grade in the course.

# **Late Submission = Zero Credit; Every Score Counts**

Late submissions 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.

### **Check Points:**

- Homework 10%, Quiz 15%, Midterm 40%, Final 35%; Zero credit to all the late and missing work, no exception.
- 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 at most 3 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. You can also get free math tutoring services in-person.

Please visit the following website for details and schedules.

https://www.deanza.edu/studentsuccess/mstrc/

# **Grading Rubrics**

Your course grade will be assigned in the following standard:

A: 100% to 94%	A-: 93% to 90%	
B+: 89% to 86%	B: 85% 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 26: Fall classes begin October 8: Last day to add classes

October 9: Last day to drop classes without a W

November 11 (Friday): Veteran Day holiday; no classes; campus closed November 18th: 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 24-27 (Thursday to Sunday): Thanksgiving holiday; no classes December 12-16: 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.

For Instructors Only:

October 10th (Monday): Census Day

Grades must be submitted by Wednesday, December 21st, 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.