STAT 50+150 - Elementary Statistics — Winter 2020

4.5 Credits — CRN 11043+11395

Course Syllabus

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Basic Info

Meetings	Monday, Tuesday, Thursday, Friday from 12:00 to 4:20 pm
Meeting Location	Room C-302
Office Hours	By appointment only
Course websites	https://jorgemathbasilio.github.io/stat50-w20/ Canvas MyStatLab

What is this class?

Course Description

Analysis of data relative to social and natural processes. Collecting, grouping and presenting numerical data by means of: frequency distributions, measures of central tendency and deviation, probability and sampling, measures of prediction and correlation, linear regression, hypothesis testing, including analysis of variance. **Prerequisites:** A minimum of C in Math 131 or 133B or 134B or 141 or 150 or placement based on the Math assessment process.

Student Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Examine the characteristics of data and data collection techniques.
2. Generate statistical graphs and interpret data through the use of statistical methods and research.
3. Analyze and interpret data by applying statistical inference methods to draw sound conclusions and make informed decisions.
4. Apply probability and combinatoric techniques to solve probability questions and interpret their results.

Evaluation

Grading Criteria

In-class Assignments	5%
Quizzes	10%
Labs	10%
Exams (5 @ 10% each)	50%
Final Exam	25%

Grade Cutoffs

A	90-100%
B	80-89%
C	69-79%
D	60-68%
F	<59%

Important Dates

1/9 Last day to add this course
1/20 MLK Jr. Day - No classes Meet
2/13 Last day of class

1/9 Last day to drop WITHOUT a "W" & Receive refund
2/4 Last day to drop WITH a "W"

Course Materials

Textbook: *Elementary Stastitics*, 13th Ed, by Mario Triola

- Homework will be assigned from the textbook so you can use either a hard copy or an electronic copy.

Calculator/Technology

- You will need to buy, borrow, or rent a Ti84-Plus (or Ti84) calculator. The calculator is required for this course. You may be able to borrow a calculator from the school by signing up here: https://goo.gl/forms/dr1bJfdYkeHmz4302. If you need to rent a calculator, you can rent it from https://www.graphtor.com or https://www.rentacalc.com.
- We will also use the free statistical software called "R" during labs.

Supplies

- A 1" Binder with Pockets, Paper, a stapler, 3-hole punch, pens/pencils (lots of colors really help!)

Requirements

Assignments

In-class Assignments (ICAs)
I expect students to be actively engaged in the course and to participate. Thus, while in class there will be two components to In-class Assignments: 1) course notes and 2) Groupwork. Course Notes: You are expected to take notes in every class. These will be collected on test days.

Quizzes
There will frequent pop (i.e. unannounced) quizzes always at the beginning of class, usually during the first 5-10 minutes. Students should arrive to class 5-10 minutes early to review class notes and study homework to prepare for quizzes. Students that arrive late or miss a quiz will not be given extra time or the opportunity to make-up a quiz. I will drop the two lowest quiz scores.

Labs
Labs will be completed online using the R statistical software that is available for FREE via the CoCalc website. On lab days I encourage that you bring your own laptop or borrow one of the school's laptops.

Assignments

Homework

- There is no numeric value given to the homework.
- A homework list is provided on our course website, organized into section covered for each exam, and **is due on the day of each exam!**
- You are expected to attempt (and hopefully complete) at least 75% of the problems in each section that is assigned for that exam.
- If I do not receive your homework on-time (or if less than 75% complete), **your score for that exam will be recorded as zero.**
- If you cannot make it to class (e.g. sick), homework must be arranged to be dropped off on or before the test day either by another classmate who will bring it to class, or by someone else that may drop if off at the math department office during their regular hours (but before our class begins).

Participation

Attendance
You are required to attend all classes–please be on time! Excessive absences will affect your overall grade in class. **Students may be dropped from class after absences totaling 10 class hours**. Please note that **3 tardies = 1 absence**, and that if you are more than 15 minutes late or leave before the end of class, you will be marked absent.

Class Participation
You are expected to participate ACTIVELY in class. This means: taking accurate notes, asking questions, and working on classwork. You will be asked to work in groups or present your solutions to the class.

Time Commitment
A typical student taking a college math course spends an average of 3-4 hours outside of class for every hour in class. Our class meets for approximately 5 hours per week. You will need approximately 15-20 hours per week outside of class to study and/or complete assignments. Be sure that you have the time available to do homework and study; if not, you need to adjust your schedule. Otherwise you will be at a disadvantage and your chance for success in this course will be lower.

Exams

Exams are a way for you to show me what you have learned (and please show all your steps so I can see this!) and to give you a sense of accomplishment! They are meant to be challenging and not just homework problems with the numbers changed. I really want to prepare you for university level math classes–so some exams may be longer or more challenging than others. Remember that I do grade fairly and my goal is to push you to succeed and excel in this class. I often give hints in class as to exam problems (another great reason to come to class!), and I will post study guides along with the best way to review for each exam.

- Four exams are given during the semester–check our schedule for the exact dates.
- **Attendance required for all exams** and there are **"No Make-up Exams"** for any reason. However, I may replace the lowest exam score, regardless of the reason, with your final exam score provided the final exam score is higher than your lowest exam score and all assignments are turned-in on time.
- Your valid **PCC student ID** or a valid **government ID** is REQUIRED for all exams.
- During the exams–you will be required to leave your backpack and all non test items at the front of the room, including cell phones and smart watches. Only your pencil/eraser and calculator will be allowed during the exam, and there will be a calculator check. Should you need to leave during the exam please ask for permission first before leaving and leave your cell phone with me. Not doing these things could result in a 0 on your exam.
- Once the exam is returned, any problem you would like me to revisit must be brought to my attention by the next class session.
- **Always keep your exams!**

Tentative Test Dates

• Exam 1	Monday, January 13
• Exam 2	Monday, January 20
• Exam 3	Monday, January 27
• Exam 4	Monday, February 3
• **Final Exam**	**Thursday, February 13 from 12-3 pm**

- Important note on final exam: attendance is required to obtain a passing grade in this course. Only in extreme cases (and subject to the Dean's approval) will special accommodations be made.
- You must make arrangements to attend and take the final at the above schedule date and time–**no exceptions!** Please note: having a plane ticket that conflicts with your final exam date and time (or other similar travel related reasons) is not considered a valid excuse.

Rules

Class Rules

Environment of Respect
To be respectful of everyone in class and understand that everyone has the right to learn. Don't be afraid to ask questions, we are all here to learn.

Cleanliness
Keep the classroom clean, do not bring food into the classroom and leave no trash.

Honor Code
Follow the standards of academic honesty and the code of conduct of Pasadena City College. (Please do not even consider cheating or plagiarizing an assignment. This action will have severe consequences which include a zero on the given exam or assignment and having the incident reported to Student Services. The Dean of Student Life can then impose institutional consequences like limiting educational activities, probation, and expulsion from the college. Cheating can include, but is not limited to, copying from a fellow student on an exam or assignment; using your cell phone or other smart device during an exam; letting your eyes wander to your fellow student's paper during an exam.)

Class Rules

Cell Phones
You may **NOT** have your cell phone out during class for any reason. This means: no texting, no phone calls, no web surfing, etc. **Never photograph or take video** inside the classroom unless I specifically allow the class to do so. **PENALTY:** if I see your phone out, on your lap (do you seriously think I don't notice that?) or if it rings in your bag, I will give you issue one warning but each subsequent violation will cost you 5% on your next exam.

Computers & Tablets
Computers & Tablets are allowed only if you sit on the front row and are using the computer for note taking, graphing software. Any other use such as using social media, watching videos, is not allowed. **PENALTY:** First violation will receive a warning but each subsequent violation will cost you 5% on your next exam.

Food & Drinks
Only liquids with a non-spill lid are allowed in the classroom (water bottles, coffee with a secure lid). Open cans of soda/energy drinks are not allowed. Fast food is not allowed in the classroom. If you plan to bring food to eat during the break (outside of course) or after class, it must be in a smell-proof container (so don't bring fast food in bags!). Smell is distracting.

Getting Help

Tutoring

The Math Success Center (R-406)
(626) 585-7458
Free tutoring and math counselors are available! Advice: hang out here! Do your homework here!

The Learning Assistance Center (D-300)
(626) 585-7230
The LAC offers academic support to help improve your scholastic success. Our staff and tutors are here to actively engage and support you by helping you with everything from your study habits to specialized tutoring in specific classes.

24/7 Online Tutoring
PCC students get 7 free hours!

Veteran Resources (W-108)
(626) 585-7226 ext. 4
The mission of the Veterans Resource Center (VRC) is to assist military and veteran students in making a successful transition from military to academic life by providing information, tools, and comprehensive programs that increase student academic success and completion of their academic goal.

Support

DSP&S (D-205)
If you have a disability and believe you may need an accommodation such as materials in an alternate format, preferential seating, sign language interpreting/real-time captioning, access to assistive technology and/or test accommodations, per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act please contact Disabled Students Programs and Services in Room D-209 or at 626-585-7127 as soon as possible and feel free to discuss your needs with me in private.

PCC Success Centers
Check out many more success centers on campus.

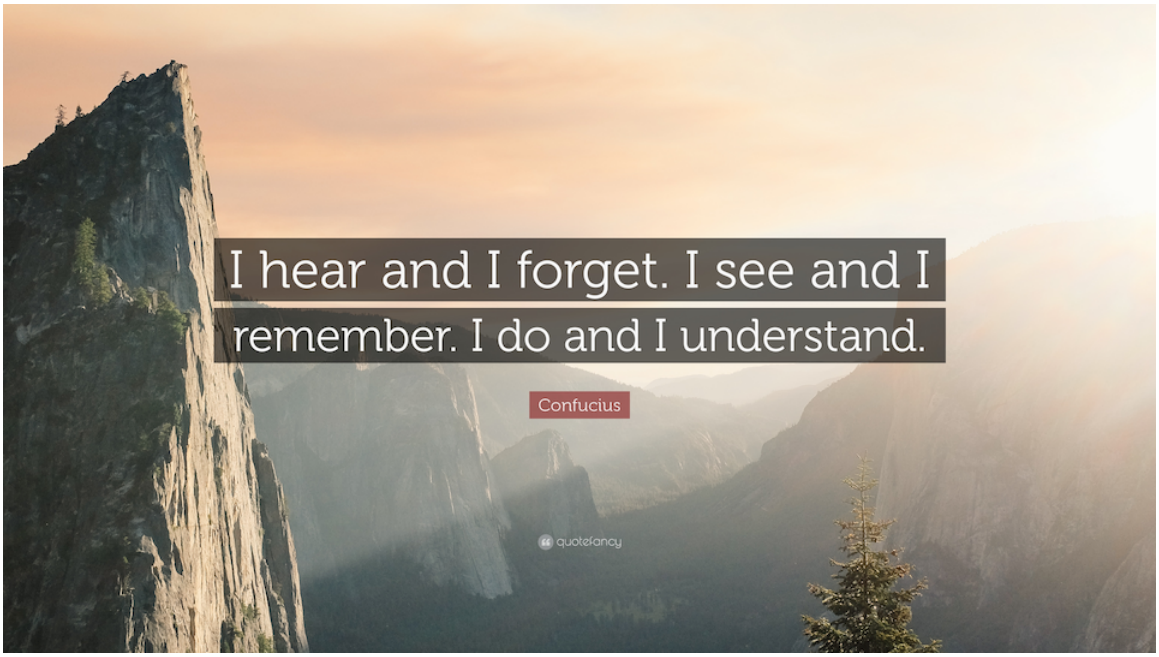
ME!
Me! Don't forget your instructor! Please check out my office hours, ask lots of questions. It is better to ask questions early in the semester rather than later, and please do not be afraid to come by office hours. I hold office hours in the Math Success Center at any free table, and like to use the white boards in the center and work out problems together. If you are struggling, I can only work with you to attempt to find a solution but only if I know that a problems exists–please communicate!

Tentative Schedule

This is a tentative schedule for the course and may change as the course progresses.

Stat 50/150 - EI_Stats — Mo Tu Th Fr
CRN 11043/11395 — 12-4:20 pm
Winter 2020
Dr. Jorge Eduardo Basilio

Week	Class Date	Topics Covered	Handouts
Week 1	Mon 1_6	First day of class! Intros, Syllabus, 1.1, 1.2, 1.3	Ch 1 ICA
	Tues 1_7	2.1, 2.2, 2.3	Ch 2 ICA
	Thurs 1_9	3.1, 3.2, 3.3	Ch 3 ICA
	Fri 1_10	lab day, review day	
Week 2	Mon 1_13	Lab 1, **Exam 1**	Lab 1
	Tues 1_14	4.1, 4.2, 4.3	Ch 4 ICA
	Thurs 1_16	5.1, 5.2, 5.3*	Ch 5 ICA
	Fri 1_17	lab day, review day	
Week 3	Mon 1_20	Lab 2, **Exam 2**	Lab 2
	Tues 1_21	6.1, 6.2, 6.3	Ch 6 ICA
	Thurs 1_23	6.4, 7.1, 7.2, 7.3*	Ch 7 ICA
	Fri 1_24	8.1, lab day, review day	Ch 8 ICA
Week 4	Mon 1_27	Lab 3, **Exam 3**	Lab 3
	Tues 1_28	8.2, 8.3, 8.4*	Ch 8 ICA
	Thurs 1_30	9.1, 9.2	Ch 9 ICA
	Fri 1_31	9.3	
Week 5	Mon 2_3	Lab 4, **Exam 4**	Lab 4
	Tues 2_4	10.1, 10.2, 10.3*	Ch 11 ICA
	Thurs 2_6	10.4*, 11.1, 12.1	Ch 12 ICA
	Fri 2_7	Lab 5, review day	Lab 5
Week 6	Mon 2_10	review for final	
	Tues 2_11	review for final	
	Thurs 2_13	**FINAL EXAM**	



Suggestions for Effectively Reading Mathematics

"Read Actively"

1. When confronted with the task of reading a piece of mathematical text, skim the entire reading first to discern its general outline and to identify its main points and objectives.
2. If necessary, review earlier portions of the textbook (or prior mathematical topics studied) to recall forgotten or unfamiliar vocabulary, techniques or theorems before attempting a thorough reading of the current text.
3. Don't rush! Read slowly! Mathematical writing is typically dense with ideas. Spend as much time as necessary to understand the fully intended meaning of each of the author's arguments and examples.
4. Pay particular attention to the precise statement of new definitions and theorems.
5. Do not immediately skip over a portion of the reading that doesn't make sense in the hope that its meaning will become more apparent later. Because of the linear nature of mathematical writing in which one topic builds from those that precede it, it is very important to fully understand one topic before proceeding to the next.
6. Try to identify the cause of any misunderstanding of the topics being studied. Consider all reasonable methods to resolve the misunderstanding. Whenever possible discuss difficult portions of the text with a friend, study partner, or study group.
7. If all else fails, make sure to mark any portions of the text that remain perplexing so that you may raise these issues subsequently in class.
8. Occasionally authors will intentionally leave some details of arguments or examples to the reader to complete as an exercise. Authors do this for pedagogical reasons and not laziness! As a useful check on your understanding of the material, always fill-in in the details omitted by the author.
9. Always keep pencil and paper handy whenever reading mathematical text. It can be very helpful to highlight important passages, insert marginal notes to yourself (a la Fermat!), and make simple calculations while involved in the reading of the text.
10. Examples in textbooks often come with a moral. Discern the author's main point in providing the example. Make sure you struggle to understand every aspect of the computation, manipulation, or procedure presented in the example.

Course Contract

⋆ ⋆ ⋆ **IMPORTANT ASSIGNMENT – COURSE CONTRACT** ⋆ ⋆ ⋆

Instructions: Please **hand-write** on a separate piece of paper and print your name, the course title, the course section, AND the following statement. Also: SIGN THIS DOCUMENT and turn it in as soon as you certify that you are able to log into Canvas/Website:

"I certify that I have read the entire contents of the Course Syllabus. I also pledge to regularly check the course Sakai site for updates and hold myself accountable for the information."