

Math 13 – Introduction to Statistics
Peralta Class Code 40161

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| Lecture | Mon 3:30pm – 5:20pm, Room 431, BCC Wed 3:30pm – 5:20pm, Room 431, BCC |
| Instructor | Gaston Sanchez, PhD |
| Email | gsancheztrujillo at peralta.edu |
| Office Hours | by appointment |
| Website | http://www.gastonsanchez.com/teaching/math13 |
| Textbook | <i>Understandable Statistics, (11th Edition or older)</i> by Charles Brase and Corrine Brase Cengage Learning. ISBN 978-1-285-46282-0 |

Grading Policy

Your course grade is based on homework, in-class participation, midterm exams, and a comprehensive final exam. The percentage breakdown for each component is as follows:

| | |
|------------------------|-----|
| In-class Participation | 5% |
| Homework | 15% |
| Midterm Exams | 60% |
| Final Exam | 20% |

Your final grade will be determined according to the following scale:

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|--------------|
| A: 90 – 100% |
| B: 80 – 89% |
| C: 70 – 79% |
| D: 60 – 69% |
| F: 0 – 59% |

Exams

- Midterm exams will include material and examples presented in lecture, examples from the textbook, and the exercises you are assigned in homework and for practice.
- Midterm exams are worth 60% of your course grade.
- The Final Exam will be a comprehensive exam, covering all topics presented in the course. It is worth 20% of your course grade. *The Final Exam will take place on the Monday of Final Exam week during class time 3:30pm – 5:20pm.*
- ***Absolutely no make-up exams will be given.***

- You are allowed to use a *non-graphing* scientific calculator during each exam. Other electronic devices such as smart phones, mobile devices, laptops, and tablets are NOT permitted during exams.
- **Please keep all of your exams.** This work is the only evidence outside of attending class of your efforts to succeed in the course.

Homework

- Homework is worth 15% of your course grade. In order to receive full credit on homework, you must show how you arrived to your answers (i.e. write out your steps).
- Homework problems will be posted on the webpage: <http://www.gastonsanchez.com/teaching/math13>. As part of your homework, you are expected to read the textbook and attend class regularly. You will have a chance to work on homework at the end of some lectures.
- Homework **to be turned in during class** on the indicated dates.
- *Please* practice your mathematics writing skills. In order to succeed in future math courses, it is critical to know how to express yourself mathematically.
- You will need a non-graphing scientific calculator. Access to spreadsheet software (e.g. MicroSoft Excel, Google Sheets, Mac Numbers, Libre Office Calc) may be helpful for homework.
- **Please save all homework** problems you complete neatly in a file, folder, binder, or ringed notebook. Never throw away the work you do for homework.

Course Content and Tentative Schedule

Chapters 1 – 9 will be covered. Each chapter is divided into three or more sections. We will cover about one or two sections per class period. After each class, I will upload the lecture slides to the webpage <http://www.gastonsanchez.com/teaching/math13>. There are three midterm exams and one comprehensive final exam for this class.

| Exam | Chapters | Tentative Date |
|-------------|--|-----------------------|
| Exam 1 | Ch 1-3: Introduction, Averages, Variation | Wed, Sep 23 |
| Exam 2 | Ch 4-6: Probability, Binomial and Normal Distributions | Wed, Oct 28 |
| Exam 3 | Ch 7-8: Estimation and Inference | Wed, Nov 25 |
| Final | Ch 1-9: 1-8 + Correlation and Regression | Mon, Dec 14 |

To be successful in this course, you should spend about 15 hours per week outside of class time, studying the material and completing exercises. Some may need more time to do well.

Attendance Policy

You may be dropped if you are absent for more than one consecutive week of class without contacting me to explain your absences. Those who perform poorly on an exam, then fail to take the next one, *will* be dropped.

- Your attendance is an important part of your success in this course. Students who regularly miss class may therefore lose participation percentage points.
- Students who miss more than 20% of classes will lose all participation points.
- While attending class, please help to maintain a decent learning environment.
- **No laptops, tablets, cell phones, or other similar electronic devices are allowed during lecture. Please be considerate of others; turn off your cell phones and put them away.**
- Sit close to the door if you must leave early. If you are late, please try to find a seat as quickly and quietly as possible.

Email Policy

You should only use email as a tool to set up a one-on-one meeting with me *if office hours conflict your schedule or if you cannot talk to me during class*. Use the subject line **"Meeting Request"**. Your message should include at least two times when you would like to meet and a brief (one-two sentence) description of the reason for the meeting. Email sent for any other reason will not be considered or acknowledge. Our conversations should take place in person rather than via email, thus allowing us to get to know each other better and fostering a more collegial learning atmosphere.

Cheating Policy

Cheating is a very serious offense that I will not tolerate. The first time you are caught cheating on an exam I will give you a grade of 0% for that exam, and also drop your overall course grade by 10%. Both, or all, parties involved will be charged. (*No one caught or involved in cheating will earn an A in the course.*). If you are caught cheating a second time, I will give you an F.

Student Learning Outcomes

Upon completion of this course, students will:

1. Find and evaluate statistical information in discussions and presentations
2. Use statistical procedures and standard techniques in data gathering, summary, and presentations.
3. Interpret data sampling and inferential statistics (hypothesis testing and confidence intervals.)
4. Describe the rules of probability and the role of probability distributions such as the Binomial, Normal, and various other models.

Justification for the Course:

Satisfies the General Education and Analytical Thinking requirement for Associate Degrees. Provides foundation for more advanced study in mathematics and related fields. Satisfies the Quantitative Reasoning component required for transfer to UC, CSUC, and some independent four-year institutions. Acceptable for credit: CSU, UC. AA/AS area 4b, CSU area B4, IGETC area 2A.