MATH 11: CALCULUS-BASED INTRODUCTORY PROBABILITY AND STATISTICS

EDDIE AAMARI, DEPARTMENT OF MATHEMATICS, UCSD, WINTER 2018

Instructor. Professor: Eddie Aamari

Email: eaamari@ucsd.edu Office: AP&M 5880A

Lectures. Tuesday and Thursday, 2pm-3:20pm, PCYNH 106

Textbook. Stats: Data and Models, 4th Edition, by De Veaux, Velleman, and Bock Purchase: If you purchase the textbook from the bookstore, it will include a copy of MyStatLab, although this is not required for the course. Instructions for purchasing an electronic version of the textbook online are available in TritonEd. If you choose this option, you will have access to the textbook only until the end of the quarter.

Older Editions of the Textbook: I am not intending to do anything with this class that requires specifically the current version of the textbook. However, I haven't taught this class before, and have not compared the current version to older editions. Thus, if you want to use an older edition of the textbook instead, it will probably be sufficient, but I cannot make any promises to that effect.

Content. Math 11 is an introduction to probability and statistics. Topics include: events and probabilities, conditional probability, Bayes formula, discrete and continuous random variables, mean, variance, binomial distributions, Poisson distributions, normal distributions, uniform distributions, exponential distributions, central limit theorem, sample statistics, confidence intervals, hypothesis testing, and regression.

Emphasis on connections between probability and statistics, numerical results of real data, and techniques of data analysis. Labs will introduce students to the Minitab software package for statistical analysis.

Office Hours.

| Name | Email | Office Ho | urs | Office |
|--------------------|-------------------|-----------|--------------|------------|
| Aamari, Eddie | eaamari@ucsd.edu | Tuesday | 10am-11am | AP&M 5880A |
| | | Thursday | 11am-12pm | AP&M 5880A |
| Gabouchian, Mikael | mgabouch@ucsd.edu | Friday | 11am-12pm | AP&M 5218 |
| Reed, Alexander | abreed@ucsd.edu | Monday | 10 am- 12 pm | AP&M 6436 |
| $Gilby, \ Joseph$ | jgilby@ucsd.edu | Monday | 8am-9am | AP&M 5128 |
| He, Chen | hec064@ucsd.edu | Monday | 3pm-4pm | AP&M 6436 |
| | | Wednesda | y 3pm-4pm | AP&M 6436 |

You can also attend to the office hours of Lecture A:

| Name | Office Hour | s | Office |
|--------------------|-------------|-----------------------------------|-----------|
| Kane, Daniel | Monday 2:3 | 0pm-4:30pm | AP&M 7131 |
| Liu, Jiaqi | Wednesday | $4 \mathrm{pm}$ - $6 \mathrm{pm}$ | AP&M 6446 |
| Pan, Xiaoou | Thursday | 3 pm-5 pm | AP&M 5412 |
| Wang, Shuheng | Tuesday | 12 pm-2 pm | AP&M 5218 |
| Teixeira, Fernando | Wednesday | 11am-12pm | AP&M 5218 |
| | Friday | 4 pm-5pm | AP&M 5218 |

Course Webpage. All the class informations (homework, due dates, solutions) will be available on the instructor's webpage.

Discussion Board. The Piazza forum for our class where questions can be posted and answered. It is a very helpful resource!

Labs. In addition, you will be given eight weekly computer labs.

Due dates: These labs will be due on Friday at 9pm each week without an exam. Labs should be submitted on TritonEd by their respective due dates.

Late Submissions: Lab assignments can be submitted up to 1 hour late at the cost of a 1-point penalty. Assignments submitted later than this will not be accepted, excepting the first assignment which can be submitted up to a week late for a 1-point penalty.

Collaboration Policy: The collaboration policy for labs is similar to that for homeworks. You should feel free to discuss approaches with other students, but the final work should be done on your own. In particular, your final submission should be the result of Minitab computations that you have done on your own, and you should not use graphs produced by other students or share your graphs with other students.

Plagiarism Detection: To ensure that students will not copy portions of their labs from other current or past Math 11 students, the software Turnitin.com will be used to detect plagiarism. Therefore, the following policy, quoted from UCSD's Academic Integrity web site, applies to Math 11:

"Students agree that by taking this course all required papers will be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the terms of use agreement posted on the Turnitin.com site."

Questions about labs: should be directed to the head lab TA, Selene Xu (email). Lab Office Hours:

Sections Name Email Office Hours Office
All Yue Xu, Selene yux033@ucsd.edu Friday, 11am-1pm AP&M B349

Homework. Homework is a very important part of the course and you should work carefully on every assignment and try your best to complete every problem. The homework assignments will be announced on the course webpage and should be completed by the indicated due date.

Homework assignment files should be printed, and answers written directly in the empty boxes provided on the template. Info about printing in UCSD here.

- Homework is due weekly on Tuesday's lecture.
- Late assignments will not be accepted.
- Your worst homework grade will be dropped.
- Randomly selected problems on the assignment will be graded.

Homework will be handed back in your discussion section.

No homework re-grading will be allowed after the section ends. This means that if you come back after you went out the room, your grade is fixed and your homework will not be regraded. Complaints/reclamation <u>during</u> the section will be considered with concern.

Grading. Your average in this class will be determined as follows.

| | 15% | Homework | | 15% | Homework |
|------------|-----|------------|------------|-----|--------------|
| Formula 1: | 20% | Labs | | 20% | Labs |
| | 15% | Midterm 1 | Formula 2: | 15% | Best Midterm |
| | 15% | Midterm 2 | | 50% | Final Exam |
| | 35% | Final Exam | | | |

Whichever formula gives you the better result will be used

Your worst homework grade will be dropped for computing your final *Homework* score.

The grading scheme will be curved and scaled to the best student in class.

Academic Integrity. Group work and discussions are allowed and encouraged in this course, but copying or letting others copy your work plagiarism. Cases of academic dishonesty will be reported to the Academic Integrity Office. Penalties for violating the policy vary depending on the circumstances but can include failure in the course or suspension from the university. UCSD's integrity policy can be found here.