

# Math 160, Elementary Statistics Spring 2020

Section 7964 (MW 7AM–8:50AM Room 100-111) and

Section 6802, 7966 (TTh 9AM–10:50AM Room 100-119)

<http://www.grossmont.edu/people/jeff-waller/>

This course syllabus represents a **legal contract**. By enrolling in and staying in this course, you agree to all the terms and conditions in this syllabus and any expansions on it made in class.

**DON'T FORGET ABOUT THE FREE TUTORING AVAILABLE!!**

**Instructor:** Mr. Jeff Waller, [jeff.waller@gcccd.edu](mailto:jeff.waller@gcccd.edu)

**Office Hrs:** M: 6:30-6:55AM

**Office phone:** 619-644-7248

W: 6:30-6:55AM, 11AM-12:25PM

TTh: 7:30-7:55AM, 11:30-12:25PM

**Office:** 100-107E (“the compound” in lot 5 south of parking structure)

Can stay after class if needed.

Other times by appointment.

**Prerequisite:** A “C” grade or higher or “Pass” in MATH 103 or 110 or equivalent.

**Objectives:** This course is heavy on concept, but light on algebra – including the fact that there are no true word problems. It will be vital to know when to use which equation, to understand why and when the equations sometimes change, and to familiarize yourself with the different variables and symbols. You will apply methods of descriptive statistics (graphs, central tendencies, dispersion and position); solve probability problems using formulas and concepts including binomial, normal, and simple probabilities; utilize hypothesis tests, find estimations for parameters, and utilize linear correlation and regression.

**Textbook:** *Introductory Statistics*, Illowsky and Dean, ISBN 10: 1938168208. This text is FREE to access online or \$33.50 for a hard copy through Amazon. More information here <https://openstaxcollege.org/textbooks/introductory-statistics>.

**Calculator:** TI-82, 83, or 84 required. TI-83 or 84 recommended. I will be using the TI-84 Plus. Any calculator other than these that has statistical analysis functions may be used, but it will be up to you to research how to use them.

(You can RENT calculators at [www.rentcalculators.org](http://www.rentcalculators.org) for \$9/month.)



**Grading:** There will be several quizzes, group work, 3 tests, HW, and a comprehensive final.

- **Test Average:** 50% or 55%
- **Quiz and HW Average:** 20% or 25%
- **Final Exam:** 20% or 25% (date: see HW/Timeline sheet)

Percentages determined after final exam graded.

Percentage scheme resulting in highest grade will be used.

**Scale:** [70,78) = C, [78,80) = C+, [80,82) = B-, [82,88) = B, [88,90) = B+, [90,92) = A-, [92,98) = A, > A+



## Overview of policies:

- **HW:** You should be working on homework continuously. Try to turn homework in two classes after the date lectured. (So if I lectured through Section 1.4 on Wednesday, HW through 1.4 should be done by the next Wednesday.) Turn in HW anytime through the day of the test. After that, you can still turn it in, but it will be late.
  - If you turn the HW in before the review day for the test (**HIGHLY RECOMMENDED**), I will have time to give a more thorough look at it, write notes, and get it back to you so you can use it as a study tool.
  - If you turn the HW in on the review day or day of the test, it won't be considered late, but I won't have time to make notes and suggestions on it, and you'll get it back **eventually**.
  - You won't get a letter grade or percentage on the HW. Instead, I'll say **OK** (full credit), **CORRECT** (you have half credit and might get full credit if you correct your mistakes), **REDO** (redo the assignment for any credit), or **NO CREDIT** (you got no credit and can't get credit. Normally used if you blatantly copied from someone.)
  - HW corrections are due on **the day of the final exam**. Focus on keeping up with new HW.
  - You must **SHOW all work**, use a pencil, WRITE LEGIBLY, and don't turn in paper with the jagged edge.
  - Learn how to staple. Staple assignments so that I can still see your work and any other information (section numbers, your name...). Do NOT staple HW together with quiz or test corrections.
  - **Write the section of HW and assignment at the top of the page.** (e.g.: Section 1.4 87-89)
  - Work turned in **must** be your own. Don't copy from someone else, the back of the book, or solutions manual.
  - However, it is ok and a good idea to work on HW with classmates or to ask tutors or your instructor for help.
  - Please get up and leave now if you plan on not doing the HW for this class. **Seriously. Go away. Now.**

- **Attendance:** Any absence for a test or quiz must be explained to me **immediately**. The instructor *may drop* any student from the course who is **marked absent for at least 3 classes**. However, it is **YOUR** responsibility to drop this course if you no longer wish to be enrolled. Explain to me any circumstances that will cause you to be frequently late. If you are late, come in as quietly as possible.
- **Reviews for tests:** The class before each test will be devoted to review. You'll get practice tests with answer keys.
- **Test and quiz policies:** No tests or quizzes will be dropped. No notes, books, or cell phones allowed on tests. I reserve the right to change where students are seated in the room on the day of a quiz or test if necessary.
- **Make-up policy:** Make-up tests and allowances for late HW will be allowed **ONLY** under *special* circumstances. You **MUST** contact me **before or soon after (meaning within 24 hours)** a missed test or quiz. Missed quiz grades will be replaced by the test grade if you contact me in time.
- **Test corrections:** Tests and quizzes can be corrected and turned back in for points. Test and quiz corrections are **due by the day of the next test**. If you correct quizzes on time and then make a higher grade on the corresponding test, the test grade will either take the place of the lowest corrected quiz grade or proportionally average out with that quiz grade, based on how well you did on corrections. Corrections for tests and quizzes work this way:
  - **Do NOT change any of the original work.** Correct anything you lost points for on another sheet of paper.
  - I grade the heck out of corrections. If I get any inkling of an idea that you merely copied answers from someone else, **you won't get any points**. If you get caught copying corrections, you might not be allowed to correct any other tests or quizzes for the semester.
  - If you make an 80 or more, you will get up to 5 points back, up to a max of 100, if you do **ALL** corrections and get them **ALL** right. So, if you get an 87, you can get UP TO a 92. But with a 98, you can get UP TO a 100.
  - If you make less than an 80, you can get up to 1 point back for every 4 points you missed if you do **ALL** of the corrections and get them **ALL** right. For example, if you got a 64, you missed 36 points,  $36/4=9$ , you could get UP TO 9 points back, making your grade a 73. **You can correct EVERY test, quiz, and HW assignment ONCE.**

**Assistance:** I will provide assistance during office hours or by appointment. Forming study groups to work on HW and to prepare for tests is encouraged, but ALL HW submitted should be your own. For information on FREE tutoring, contact the **Math Study Center** (<http://www.grossmont.edu/academics/programs-departments/math/study-center>) downstairs Tech Mall, room 70-112 at **644-7706** or the **Tutoring Center** ([www.grossmont.edu/student-services/tutoring/tutoring-center.aspx](http://www.grossmont.edu/student-services/tutoring/tutoring-center.aspx)) upstairs Tech Mall, room 70-202 at **644-7387**.

**Academic honesty:** Cheating and plagiarism (using as one's own ideas writings, materials, or images of someone else without acknowledgement or permission) can result in any one of a variety of sanctions. Such penalties may range from an adjusted grade on the exam, paper, project, or assignment (all of which may lead to a failing grade in the course) to, under certain conditions, suspension or expulsion from a class, program or the college. If you copy homework, you **will not get any credit** for that assignment. At the least, **a grade of zero** will be given for any exam, quiz, or HW on which you are caught cheating. At the most, you will **fail the course** and a report on the incident will be filed with student services. If you copy corrections to quizzes or tests from another student, then you will not get credit for those corrections and you will not be able to make corrections to **ANY** other tests or quizzes. For further clarification and information on these issues, please consult with me or contact the office of the Associate Dean of Student Affairs (644-7600).

**Miscellaneous, good-to-know items:**

- I will be videotaping lectures and posting them to youtube. There is a link to those videos on my website.
- Passing this course requires **understanding** the material covered. Doing HW and other assignments help you get practice with the concepts, but your grade is most affected by how well you understand the material.
- Getting behind on HW is just about the **WORST** thing a student can allow to happen. **SEE ME** if you do.
- **EXPECT** to work hard on homework and to study hard for exams and quizzes.
- **EXPECT** to seek help from tutors, from fellow students, and/or from me.
- Do HW and exams in **PENCIL**. Bring paper, pencil, your calculator, and your text book to class every day.
- **Disrespecting anyone in this class in any way WILL NOT BE TOLERATED.** Not only does disrespect mean making comments about another's race, ethnicity, accent, appearance, intelligence, sexual orientation, or religion, but also speaking while I or another student is speaking, continually coming to class late, and making non-constructive comments during lecture.

- **Disrupting the class in any way WILL NOT BE TOLERATED.** Disrupting means creating or contributing to an environment which hinders the instructor's ability to teach or your fellow students' ability to learn.
- **DON'T** be shy about coming to my office hours or asking for other times to meet if my schedule conflicts with your schedule. I am completely dedicated to helping you succeed in this course.
- **The maximum number of times a student may enroll in the same credit course is three times.** A student can petition to take it a fourth time. Military withdrawals and withdrawals that occur due to fire or flood do not count in terms of repetition restrictions. This rule does not contain a grandfather clause. If a student has already reached the maximum number of course repetitions, they cannot take it again in this district.
- **\*WARNING\*:** Many math students suffer from the "**What the WHAT?**" syndrome, characterized by a complete lack of understanding of material presented in a given class period. To prevent that from happening:
  1. **READ AHEAD** so that you will be familiar with terms/procedures when you see them in class. Crazy, huh?
  2. **ORGANIZE** your study time - plan on studying and doing HW for **at least** an average of **8 hours/week.**
  3. **STUDY PROPERLY.** Rewrite notes, read the textbook, do your homework, organize a study group, take advantage of the free tutoring, make a list of questions to ask in the next class period ...
  4. **PAY FULL ATTENTION** in class. This does not mean merely copying everything I say and write on the board. It means at least making an attempt to wrap your brain around the concepts we discuss in class.

**Disability Information:** "Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and to contact the Accessibility Resource Center (A.R.C.) early in the semester so that reasonable accommodations may be implemented as soon as possible. Students may contact the A.R.C. in person in Room 60-120 or by phone at **619.644.7112** or **619.644.7119** (TTY for deaf)."

**Required statement about Tutoring Services:**

- Students requiring additional help or resources to achieve the stated learning objectives of the courses taken in mathematics are referred to the Math Study Center in room 70-112 or the Tutoring Center in room 70-202.
- Students in Math 103 and above do NOT need to enroll in Math 198. Enrollment in your math course will put you into the system for the MSC.

**Math 160 Student Learning Outcomes**

Upon successful completion of this course, a student will be able to

- categorize data sets and use appropriate methods to find, summarize, and display statistics about the data set.
- interpret visual display of statistical data.
- take sample statistics and use appropriate procedures, methods, and tests to make inferences about the population.
- categorize probability problems and use appropriate theorems/formulas to solve them.
- use the appropriate technology to analyze statistical problems.
- interpret, communicate, and assess the validity of statistical processes and conclusions.

