

Course Syllabus Fall 2015  
Cuyamaca College Math Department  
Math 160 — Elementary Statistics (4 units)

**Professor Tim Busken**

**Email:** [Tim.Busken@gccd.edu](mailto:Tim.Busken@gccd.edu)

**Course Home Page:**

[timbusken.com/statistics.html](http://timbusken.com/statistics.html)

**Section 1461**

**TTh 3 - 4:50 pm**

**Room: H127**

**Lab: Tues. 3 - 3:50 pm  
in H119**

**Final: 12/10 Thurs. 3-5pm**

**Section 8016**

**TTh 6 - 7:50 pm**

**Room: H127**

**Lab: Tues. 7 - 7:50 pm  
in H119**

**Final: 12/10 Thurs. 6-8pm**

**Textbook:** Elementary Statistics 6e, Larson and Farber

ISBN: 9780321911216 , Publisher: Pearson.

This course covers Chapters 1 – 10

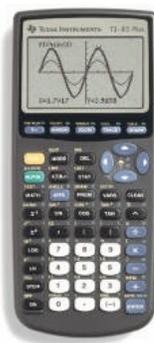


**Required Materials:**

- ☞ Textbook or ecopy of the textbook.
- ☞ Statcrunch OR mystatlab
- ☞ TI83, TI83+, TI84 or TI84+ Graphing Calculator

**Grading:**

Homework	15%
Labs	10%
Tests	50% (best 3 of 4)
Mandatory Final Exam (yes, it's cumulative)	25%



TI-83 plus



TI-84 plus

**Calculator:** The Texas Instruments TI-83 plus or TI-84 plus **graphing calculator is required.** (I've seen the TI-83 plus and TI-84 plus calculators on [www.rentcalculator.org](http://www.rentcalculator.org) for \$9/month) **Bring your calculator to all on-campus exams and classes.** Students may not share calculators during exams. Phones are not allowed.

**Tests:** There will be **no makeup tests.** There will be 4 tests and a mandatory, cumulative final exam. I will drop your lowest test score, making your best three test scores worth 16.66% each. I will not drop your final exam score. I recommend that you make it to every class. If you miss no more than 4 classes and you are not disruptive in class, I will add 10% to your final exam score.

**Homework:** You can either complete homework (1) online through MyStatLab or (2) with the textbook, your choice. The homework sets are equivalent. Either way, expect to do homework

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continuously for sixteen weeks. 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.

**If doing HW Online:** A MyStatlab Course Id will be given to you in class. Assignments and due dates will show when you login to MyStatlab. Homework is due the day of the test. If a due date has already passed you may get credit for finishing or redoing problems you didn't do or couldn't complete before the deadline.

**If doing Textbook HW:** The homework list can be found on the course website. Homework is due on the day of the test. After homework is graded and given back, you are allowed to make corrections and can redo parts you did incorrectly. Corrections are not due until the day of the final exam. Focus on keeping up with new HW. Show all work, use a pencil and write legibly. Don't turn in paper with a jagged edge. Staple assignments so I can see your work and any other information (section numbers, your name...). **Write the section of HW and assignment at the top of the page (e.g. Section 1.2 pg 9, 2-26 even).** Work turned in must be your own. Don't copy from someone else, the back of the book, or solutions manual. However, it is okay and a good idea to work on HW with classmates or to ask tutors or your instructor for help. I grade the heck out of corrections, so again, do not try to turn in a copy of the answers from the back of the book.

**Homework Note:** If you choose to do homework from out of the textbook and find that you want to switch to doing homework online or vice versa, you may switch to doing homework online (or out of the textbook), but you must communicate and discuss this with me first, because I keep the grade book in two different online locations and I have to be able to track your progress.

**\*GRADEBOOK\*:** I keep two gradebooks. If you are doing homework online, your gradebook is nested within mystatlab. If you are doing homework out of the textbook and physically turning that in on the day of the exam, then I will keep your gradebook on blackboard.

**Labs:** There will be 5 to 9 technology labs. The main purpose of these labs is to teach you the procedures for utilizing both StatCrunch and the TI83/84 for performing the necessary statistical computations.

**\*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:

- 📖 **READ AHEAD** so that you will be familiar with terms/procedures when you see them in class.
- 📖 **ORGANIZE** your study time – plan on studying and doing hw for at least an average of 8 hours per week
- 📖 **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...

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☞ **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 concepts we discuss in class.

**Accommodation:** Any student who may need an academic accommodation should discuss the situation with me in private during the first week of class. Students with disabilities who may need accommodations in this class are encouraged to contact [Disability Resource Center \(DRC\)](#) early in the semester so that reasonable accommodations may be implemented as soon as possible. Students may contact DSPS in person or by phone at 619-660-4239.

**Food Policy:** No eating or drinking allowed in the STEM Center or in H-119 (computer lab). You may have drinks in the classroom, but I prefer you not eat during class as it is distracting to me and those around you.

**Tutoring:** Statistics is a challenging subject, but the methods for success are simple: read the text, participate in class, and keep up on assignments. Many students find that forming study groups with other students is a very effective way for them to master mathematics. To support your efforts to succeed in this class, I refer you to Supervised Tutoring services that are available. Please refer to the schedule listings. All supervised tutoring sections are FREE to you. You need only enroll to receive services- no units or grades are given. The Math Study Center is just outside!! The hours are to be determined for the fall semester. You may also come to me for help at any time. For more information about the college's three tutoring centers, see the college's tutoring webpage: <http://www.cuyamaca.edu/academics/support/tutoring/default.aspx>

**Course Description:** Prerequisite: "C" grade or higher or "Pass" in MATH 103 or 110 or equivalent 4 hours lecture, 16 weeks lecture and lab, 1 finals week. The use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. AA/AS GE, CSU, CSU GE, IGETC, UC credit limit.

**Course Objectives:** This is an introductory course and as a consequence there is emphasis on terminology as well as basic concepts. Common sense and intuition will be nearly as useful as experience and background. The material presented relies on concepts already completed in Intermediate Algebra, so a thorough understanding is expected. A grade of C or better in Intermediate Algebra is prerequisite. Formula use and formula manipulation play a large part in the course. Statistics used to describe (descriptive), statistics used to predict (inferential), and probability are three major themes in this course.

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**Student Learning Outcomes:** Upon successful completion of the course the student will be able to:

- ☞ Summarize data graphically and numerically.
- ☞ Use descriptive statistics (measures of central tendency, variation, relative position, and levels/scales of measurement) to describe a population and compare populations when appropriate.
- ☞ Identify the sample space of an experiment or random trial.
- ☞ Find and interpret the expected value and standard deviation of a Random variable.
- ☞ Recognize the sampling distribution as a distribution of a sample statistic, the mean of the sampling distribution as the population mean, and the standard error of the sampling distribution as the standard deviation for the population (the Central Limit Theorem).
- ☞ Construct and interpret confidence intervals.
- ☞ Use hypothesis tests and inference (including t-tests for one and two populations and Chi-square test) to determine if a result is statistically significant for discrete (binomial) and continuous (normal) distributions.
- ☞ Use analysis of variance (ANOVA) to analyze the differences between group means and their associated procedures such as variation among and between groups.
- ☞ Perform statistical analysis using technology such as SPSS, EXCEL, Minitab, or StatCrunch.

**Method of Evaluation :** (Measuring Student Learning Outcomes with Representative Assignments) A grading system is established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- ☞ Independent exploration activities which measure the students ability to analyze the connections between the numeric and verbal representations of various types of problems.
- ☞ Quizzes and exams (including a comprehensive in-class final exam) which measure the students ability to work independently to perform arithmetic operations including powers and roots on real numbers; convert between fractions, decimals and percents; solve word problems; simplify algebraic expressions; solve linear equations.
- ☞ Homework assignments in which students apply arithmetic principles and operations discussed in class to a series of practice problems to help them formulate questions and receive feedback from the instructor, tutors or classmates.
- ☞ Computer laboratory assignments in which students apply arithmetic principles and operations discussed in class to a series of skill and drill problems to help them improve their symbolic manipulation abilities.

Note: No auditing of this course. Also, you may not bring children to class.

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**Classroom Conduct:** Class time is valuable. You are expected to be courteous to each other and to the instructor. You will be asked to leave the class for display of behavior the instructor deems as disruptive to the class environment. This includes the use of your cell phone. **Comments about another's race, ethnicity, accent, appearance, intelligence, or sexual orientation will not be tolerated on any level.** Cuyamaca College students are bound by the Student Code of Conduct. In this course, cheating, plagiarism, fraud and/or lying may result in a grade of F for the assignment/test with no make-up work permitted. Any of these infractions may also result in formal disciplinary action by the Associate Dean of Student Affairs as described in the Student Code of Conduct (as published in the catalog or online at: <http://www.cuyamaca.edu/campus-life/student-affairs/conduct.aspx>)

**Academic Integrity** Honesty and integrity are integral components of the academic process. Students are expected to be honest and ethical at all times in their pursuit of academic goals in accordance with the Grossmont-Cuyamaca Community College District Student Code of Conduct. Any student found to be cheating on an assignment will receive a zero for that assignment and be suspended from class for 3 Three days.

**Class Attendance:** Class attendance is an integral part of the learning process for this course. Students are expected to attend class regularly, as well as to arrive and depart on time. Students with excessive absences (including tardiness) may be withdrawn from the class. Note that although college policy provides for a certain number of class absences, that number covers all types of absences, including absences such as those due to documented illness or other emergency; absences for illness or emergencies are not accommodated in addition to those allowable under the attendance policy. Students may be withdrawn after more than two weeks absence of any kind.

**Cell Phone Policy:** Cell phones, pagers, and other such electronic devices must be turned off during class and lab time. Communication by electronic devices, including but not limited to instant messaging, text messaging, and telephone, during class is strictly prohibited unless expressly designated as part of the learning activities. Use of electronic communication devices during examinations or other graded activities may constitute grounds for disciplinary action. Where emergency or employment situations require access to electronic communication services, arrangements may be made in advance with the instructor. In certain circumstances, (e.g., exams, presentations, etc.), students may be required to temporarily deposit cell phones or other communications devices with the instructor or lab supervisor for the duration of the specific class or activity.

**Disruptions:** Your demeanor should support and respect the environment of learning inside the classroom. Movement and chitchat in the classroom disrupts your classmates and the instructor. This includes leaving class, coming in late, passing notes, texting and chatting with the person next to you about non-math related topics. It is very important that all students be respectful of those trying to learn. This is as important in the back row, as it is in the front row. Again, I encourage you to ask questions in class. Just know that if you have a question related to the class, someone else is certain to be wondering the same thing. So please ask! Talk/text on your phone and attend

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to your personal needs before or after - but not during class. When you enter the classroom, turn off cell phones, pagers, and all other communication devices. In times of family crisis, you may set your cell phone on vibrate. If you must arrive late or leave early, take the first seat near the door.

**A student may be dropped for:**

1. Lack of Prerequisite
2. Disruptive behavior
3. Excessive Absence(4 or more) or excessive tardiness

<b><u>Grading:</u></b>	90% — 100%	A
	80% — 89%	B
	70% — 79%	C
	60% — 69%	D
	below 60%	F

**MATH 160 TENTATIVE SCHEDULE (subject to change)**

Week 1 Intro, Chap 1 Section 2.1  
Week 2 Sections 2.2, 2.3  
Week 3 Sections 2.3, 2.4, 2.5  
Week 4 Sections 3.1, 3.2 Test 1(C 1 & 2)  
Week 5 Sections 3.2, 3.3  
Week 6 Sections 3.4, 4.1  
Week 7 Section 4.2, 5.1  
Week 8 Section Test 2(C 3 & 4) 5.2,  
Week 9 Sections 5.3, 5.4  
Week 10 5.4 , 6.1  
Week 11 Sections 6.2, 6.3  
Week 12 Test 3(C 5 & 6), Section 7.1,  
Week 13 Sections 7.2, 7.3  
Week 14 Sections 9.1, 9.2  
Week 15 Sections 10.1, 10.2  
Week 16 Test 4(C 7, 9 & 10), final review  
Week 17 FINAL EXAMS

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**Notes on MyStatLab** Please DO NOT purchase a used access code. Access codes can only be used once! PLEASE PURCHASE THE MYSTATLAB/MYMATHLAB ACCESS CODE!! MathXL access code will NOT provide you with access to the course materials.

You can purchase the required access code directly from the publisher (cheaper than from the bookstore) at: <http://pearsonmylab.com/students/register/> (If you purchase directly from the publisher, your access to the class materials will be immediate and you will be able to work in the materials immediately. You will need a credit card or PayPal to do this.)

Or

You can purchase the required access from the Cuyamaca bookstore in-person or online at: Cuyamaca College Online Bookstore (If you purchase your access from the CC online bookstore, you may have to wait several days to get the access packet. You may have to wait to begin working in the class materials. If you do not have access to a credit card or PayPal, you will need to purchase in-person from the on-site bookstore since they do take cash and checks.

More information about the MyStatLab online materials can be found at <http://pearsonmylab.com/>. (If you cannot afford to purchase the class materials today, but you will be able to pay within a week or two, please read about the 17-day Temporary Access offered by the publisher. This Grace Period allows you to get into the online class materials today, but pay for them within a week. Also, if you purchase access from the bookstore and they are out of stock, you may need to take advantage of the Temporary Access to get into the class materials before your paid access from the bookstore arrives.)

It is NOT required that you have your own computer at home for this class. All of the computers in the STEM center at Cuyamaca College are configured to work with MyStatLab. Occasionally, the MyStatLab website/server has problems. If that happens, you can generally still access portions of the class materials (homework, quizzes, class announcements, study plan, calendar, assignment dashboard, and grade book) by logging in at this sidedoor login: [http://www.mathxl.com/login\\_mml.htm](http://www.mathxl.com/login_mml.htm) (please bookmark this page in case of emergency)

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