

Cuyamaca College

Math 160 – Elementary Statistics – Section 9572 Math 060 – Just-In-Time Support for Elementary Statistics – Section 9571 Fall 2016

Instructor: Dan Curtis
Class Times: MW 12:00-1:50 pm
MW 2:00-2:50 pm
Office Hours: Monday 3:00 pm – 4:00 pm
Tuesday 11:00 am – 12:30 pm
Wednesday 3:00 pm – 4:00 pm
Thursday 11:00 am – 12:30 pm
E-mail: daniel.curtis@gcccd.edu
Room: H118
Office: H115
Website: www.cuyamaca.edu/people/daniel-curtis

Prerequisites: None.

Text and Materials:

- **Textbook:** Instead of a textbook, we will be using OLI (Stanford's Open Learning Initiative). This is a free online set of course materials for Elementary Statistics.
- **StatCrunch:** StatCrunch is an online Statistics software package. An access code can be purchased at the Cuyamaca Bookstore or online.
- **Calculator:** A graphing calculator is required. The TI 84+ is highly recommended.
- **Other Materials:** Please bring these items to class with you each day.
 - A 3-ring notebook (no spiral notebooks) just for this class.
 - Loose-leaf notebook paper.
 - 3-hole punched quarter-inch graph paper (optional)
 - A straight edge (ruler)
 - Colored pens or pencils (optional)

<u>Important Dates:</u>	Last day to add classes/Last day to drop and qualify for a refund and to drop without receiving a "W"	Friday, Sept 2
	Last day to file a petition for credit/no credit	Friday, Sept 23
	Last day to drop with a 'W'	Thursday, Nov 10
	Final Exam (Cumulative)	Mon, Dec 12 12:00-2:00 pm

It is the student's responsibility to take care of any administrative procedures involved in dropping should he/she stop attending class.

Course Descriptions:

Math 060: A review of the core prerequisite skills, competencies, and concepts needed in statistics. Intended for students who are concurrently enrolled in MATH 160, Elementary Statistics, at Cuyamaca College. Topics include concepts from arithmetic, pre-algebra, elementary and intermediate algebra, and descriptive statistics that are needed to understand the basics of college-level statistics. Concepts are taught through the context of descriptive data analysis. Additional emphasis is placed on solving and graphing linear equations and modeling with linear functions. This course is NOT intended for math, science, computer science, business, or engineering majors. Pass/No Pass only. Non-degree applicable.

Math 160: 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.

Attendance: Good attendance is a must for success in this class. College policy states that a student may be dropped from the course for excessive absences or tardies.

My Policy: Four absences during the first four weeks or six absences during the entire semester and you may be dropped – arriving significantly late or leaving significantly early counts as half an absence.

Disability Support Services: Academic accommodations are available for students with disabilities. Please identify yourself to your instructor and to DSPS staff so that the appropriate accommodations can be ensured. DSPS is at A-300, LRC (660-4239)

Academic Honesty: Academic dishonesty of any type by a student provides grounds for disciplinary action by the instructor or college. If you cheat, there will be consequences: I may give you a zero on the assignment or a zero in the course, or other additional consequences, regardless of whether you were the giver or receiver of the cheating.

Misconduct: Disruptive or threatening behavior or any conduct that interferes with my ability to teach or another student's ability to learn will not be tolerated. Such actions could result in a warning, removal from the class, or referral to the Dean for disciplinary action. Please turn off your cell phones during class.

STEM Achievement Center: To support your efforts to succeed in this class, I refer you to the STEM Achievement Center (H-Building). The STEM Achievement Center is a resource center that provides individual assistance in mathematics and science. Instructors and student tutors are available to answer homework questions, give confidence, and support math students. Students also have access to graphing calculators, textbooks, instructional videos, and computer tutorial programs. Computers are also available for student use. The STEM Achievement Center is open Monday through Thursday 9:00 am - 6:00 pm, and Friday from 9:00 am to 2:00 pm.

Grading:

Math 060: Math 060 is Pass/No Pass only. You will not receive a letter grade for this course. To receive a passing grade, you must pass Math 160 with a C or better.

Math 160: Your final grade will be based on the percentage of total points you earned, using the standard scale: A = 90% and above, B = 80-89.9%, C = 70-79.9%, D = 60-69.9%, F = below 60%. Also, you must get at least 50% on the final exam to pass the class, and at least 70% on the final exam to get an A in the course.

<u>Grading Summary:</u>	Exams	20%
	OLI Interactive Reading/Quizzes	15%
	OLI Module Checkpoints	10%
	OLI Unit Checkpoints	10%
	Math Interludes Homework and Quizzes	15%
	Labs and Classwork	10%
	<u>Final Exam:</u>	<u>20%</u>
	Total	100%

OLI Interactive Reading

Much of your homework and many of your quizzes will be completed using OLI. The interactive reading assignments will be graded. I will not accept late work, and you are not allowed to make-up missed assignments. However, I will drop your two lowest scores from this category.

OLI Module Checkpoints

Think of the Module Checkpoints in OLI as take-home quizzes that you complete online. To accommodate any technical difficulties you may have, I typically allow two attempts for each Module Checkpoint. However, I will not reset a Module Checkpoint for any reason, so please do not ask. Also, I will not accept late work, and you are not allowed to make-up missed Module Checkpoints. However, I will drop your two lowest scores from this category.

OLI End of Unit Checkpoints

Think of the End of Unit Checkpoints in OLI as take-home tests that you complete online. To accommodate any technical difficulties you may have, I typically allow two attempts for each End of Unit Checkpoint. However, I will not reset a Checkpoint for any reason, so please do not ask. Also, I will not accept late work, and you are not allowed to make-up missed End of Unit Checkpoints. However, I will drop your single lowest score from this category.

Labs & Classwork

Additional assignments that will include: group-work, labs, pop quizzes, and other activities. No late work and no make-ups, but I will drop your lowest two scores from this category.

Exams

You will have between five and eight in-class exams. No make-ups, but I will drop your lowest exam score (**not** including the final).

Final Exam

The final exam is comprehensive, closed-notes and closed-book. See the Schedule page to learn the date and time of your final exam.

Math 060

Student Learning Outcomes

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

- 1) Formulate questions that can be addressed with data, then organize, display, and analyze relevant data to address these questions and communicate results.
- 2) Apply numerical and algebraic reasoning and computational skills to support statistical analysis.
- 3) Construct, use, and interpret mathematical models, specifically linear functions to represent and communicate relationships in quantitative data.

Math 160

Student Learning Outcomes

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

- 1) Summarize data graphically and numerically.
- 2) Use descriptive statistics (measures of central tendency, variation, relative position, and levels/scales of measurement) to describe a population and compare populations when appropriate.
- 3) Identify the sample space of an experiment or random trial.
- 4) Find and interpret the expected value and standard deviation of a Random variable.
- 5) 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).
- 6) Construct and interpret confidence intervals.
- 7) 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.
- 8) Use analysis of variance (ANOVA) to analyze the differences between group means and their associated procedures such as variation among and between groups.
- 9) Perform statistical analysis using technology such as SPSS, EXCEL, Minitab, or StatCrunch.