

College of the Canyons, Fall 2024
 Math 140 *Statistics*, Lecture Sec 79254, 4 Units
 T,Th 11:00 AM – 1:25 PM, Hasley-134

INSTRUCTOR: Roy W. Erickson, Primary contact: CANVAS *inbox* (two days to respond)
 Secondary Contact: roy.erickson@canyons.edu (one week to respond).

OFFICE HOURS: (Tentatively) after class for 30 minutes (further time slots to be determined).

PRE-REQUISITES: High School Algebra

SUBJECT MATTER: Examines statistical methods including collecting data, bias, experimental design, exploratory data analysis, regression, probability, sampling and theoretical distributions, population estimations, confidence intervals, hypothesis testing, categorical and quantitative association tests and how to use computer-based statistical software. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education.

STUDENT LEARNING OUTCOMES:

Apply basic statistical procedures, including the collection, analysis, and reporting of data designed to test a research hypothesis. Demonstrate the appropriate use of computer-based statistical software.

WEIGHTING: Comprehensive Final 15%, 3 of 4 Tests 45%, Classwork and Homework 15% , Projects 20%, Notebook 5%

Note: I drop the lowest test – so if you miss a test b/c of illness, personal, etc that is the test dropped. Plan accordingly!

GRADING: A: 100 – 90.0, B: 89.9 – 80.0, C: 79.9 – 70.0, D: 69.9 – 60.0, F: 59.9 – 0

TENTATIVE SCHEDULE: Fall 2024

Wk	Date	Monday	Wednesday
1	19 Aug	<i>Syllabus</i> , The Big Picture 1.1 Sampling – 1.2 Data types	2.1 Qualitative graphs – 2.2 Frequency Distributions
2	26 Aug	2.3 Quantitative graphs – 2.4 Misleading graphs	3.1 Measure of Center – 3.2 Measure of Spread I
3	02 Sep	L A B O R D A Y	
4	09 Sep	Test 1 – Ch 1,2,3 – Project 1: Data Analysis	5.1 Basic Probability
5	16 Sep	Project 1 due, 5.2 Addition rule – 5.3 Cond'l Prob I	5.3 Conditional Probability II – 5.4 Counting
6	23 Sep	6.1 Random Variables – 6.2 Binomial Distributions I	6.2 Binomial Distributions II – 7.1 The Normal Distrib'n
7	30 Sep	Test 2 – Ch 5,6 – Project 2: Distributions	7.2 Applications, 7.3 The Central Limit Theorem
8	07 Oct	Project 2 due, 7.4 Central Limit Thm for proportions	8.1 Conf. Intrvl for Means (std dev known)
9	14 Oct	8.2 CI for Means (sd unkwn) – 8.3 CI for proportions I	8.3 CI for proportions II – 9.1 Hypothesis Tests Overview
10	21 Oct	9.2 HT for means (std dev known)	9.3 HT (sd unknown) – 9.4 HT for proportions
11	28 Oct	Test 3 – Ch 7,8,9 –	1.3 Experiments
12	04 Nov	1.4 Bias – 9.1 Hypothesis Tests Overview	9.3 HT (sd unknown) – 9.4 HT for proportions
13	11 Nov	V E T E R A N S D A Y	
14	18 Nov	11.3 Matched pairs	11.1 HT 2-pop means – 11.2 HT 2-pop prpns
15	25 Nov	Test 4 – Ch 10,11,12 – 12.1 Goodness of fit dence	12.2 Tests for Independence
16	02 Dec	Brief: 4.1 and 10.1 Correlation and Regression	Proj 5 due & Comprehensive Final Exam (11am – 1pm)

Last Day (estimated) to: Drop w/ Refund: 01 Sep, Drop w/o 'W': 01 Sep, Drop w/ "W": 09 Nov ver.2

WORKLOAD: This class will require a major time and effort commitment. Plan on spending at least an hour or two each night studying, doing problems, and/or writing up lab reports. This class is 4 units, which means you should be spending a lot more time on it than the typical 3 unit class. **DO NOT FALL BEHIND!** It is very difficult to catch up in this class as each chapter builds on the previous chapters, so stay on top of things. Ask for help if you are confused about anything. **DO NOT ASSUME YOU WILL FIGURE IT OUT LATER AND CATCH UP THEN (CRAMMING)!**

HOMEWORK: After the lecture of each section consider the HW to be assigned, even if it was not formally announced (ask if in doubt). Work the problems listed in the HW Syllabus. E-mail *a fellow student* should you miss class as I do not always recall the details from class to class (I teach other classes and I work a part-time day job :) **Assigned HW is due at the start of Monday's class!** Late HW is NOT accepted under any circumstances! Each problem will be given a grade of 0 or 1 based primarily on completeness. Classwork and short quizzes may be given at random based on homework problems and carry a heavier weight.

HOMEWORK GUIDELINES: In order to receive credit for homework, tests and projects your work must follow a specific set of style rules summarized in the handout "Homework Guidelines." These are like the rules in English classes: ((See mymathmantra.com → homework for examples))

- * HW must be properly labeled and stapled by the section to be accepted.
- * Every HW assignment starts on a new page and needs class, title and name along the top.
- * *Please DO NOT staple multiple sections together.*
- * No two column layout - use full width of the page.
- * All work is done on 8.5 x 11.0 white paper or engineering pad paper.
- * Readable: Neatly written and organized layout of your work

My grader and I are *not* obligated to grade any type of work, including exam work, failing to follow these guidelines. Messy work reflects on your self-respect as well as your respect towards those who must read it.

DISABILITIES AND GRIEVANCES: Students with a verified disability who may need reasonable accommodations for this class are encouraged to notify the instructor and contact [disabled students and services](#) (see AAC below) as soon as possible. *All information will remain confidential.* I will do my best to accommodate any disability that any student may have. Should you have any complaints or grievances about the class or your treatment in it, talk to me first, so that we can work through any issues.

CHEATING results in a zero on the element being tested on. If seating allows for it we sit every other seat during the examination period. I reserve the right to rearrange people during the tests. *No restroom breaks!* Three Strikes: 1- "Eyes on your own paper," 2- I tap your desk, 3- I take your exam and put a Zero on it. Further cheating warrants a visit to the Dean, the results of which could be expulsion from CoC!

DISTRACTIONS: Late students create an unnecessary distraction, so it is your responsibility to your classmates to arrive on time. *Once in class* - stow all devices. You may be asked to leave class if you are texting or using your device in class. *At home* - place your device in the freezer while studying, visiting it 10 minutes at the end of each hour. Turn off your TV, youtube, GF or BF. Turn on aggressive classical music - it wires the brain for math. Some people study best in the mornings – know your learning style. Avoid heavy foods before class and study. Drink plenty of water and eat almonds, raisins, yogurt, veggies to combat tiredness. You are what you eat! Go for a walk before class.

INCOMPLETES: Incompletes (I) are given only for serious and verifiable reasons. You must also have a current grade of C or greater when requesting one.

TUTORING: Group study outside of class is cautiously encouraged (wear a mask – social distance). Tutors are available at [The Learning Center](#). The TLC is a valuable asset to the campus – use it!

DROPPING THE CLASS: I will drop you if you miss four lectures without notifying me. Dropping *after the posted drop date* will result in a "W" on your transcript. **Effective July 1, 2012** students have only 3 attempts to pass a class. A grade of "D", "F", "I", or "NP" in a class, or a "W", will count as an attempt.

TEXT: https://archive.org/details/intro_to_stats_for_community_college_students_by_matt_teachout_complete_book

RECOMMENDED TEXT: Elementary Statistics ISBN-13: 9781259969454, 3rd ed, Navidi & Monk ©2019 McGraw-Hill

Additional College of the Canyons Resources

Degree information

Recent California Legislation guarantees admission to a California State University (CSU) campus for any community college student who completes an “associate degree for transfer”. To learn the difference between AS and AS-T, and for more information on the suggested sequence of classes to be taken, in order to obtain these degrees in two years, as well as information on when these courses are offered, please visit and click on ‘Degrees’:
<https://www.canyons.edu/academics/schools/mathscience/mse/index.php>

Canvas

This course can be accessed on the first day of class via Canvas at <https://coc.instructure.com>. Log into Canvas using your CanyonsID single sign-on:

- CanyonsID Username is your COC student email address (Ex: username@my.canyons.edu)
- CanyonsID Password is your COC student email password

Please visit the [Get to Know Your Online Classroom](#) page for help logging into Canvas and for tips on using Canvas and Zoom. [Canvas Chat Support](#) is also available 24/7 for any Canvas related issues.

Online Education

Check out the [Online Education website](#) for more information on a variety of topics that can help you be a successful online student such as: exam proctoring, learning styles, computer skills, and tips for student success. If this is your first online course, feel free to take our online learning readiness assessment to assess your skills.

The Learning Center (TLC)

The TLC provides FREE [online tutoring](#) resources to COC students! Advanced Math students should checkout MESA.

Academic Accommodations Cent (AAC)

College of the Canyons AAC provides educational services and access for eligible students with documented disabilities who intend to pursue coursework at COC. A variety of programs and services are available which afford eligible students with disabilities the opportunity to participate fully in all aspects of the college programs and activities through appropriate and reasonable accommodations. For more information on their services visit the [AAC](#).

Online Counseling

The Counseling Department offers appointments online. You can schedule an appointment by visiting the [Online Counseling website](#). Counselors can help you map out a plan to reach your educational goals as well as advise you on course selection and registration.

Management of Stress and Mental Health

College of the Canyons cares about your emotional and physical health. Learn more about the broad range of confidential student services, including free counseling and mental health services available during this time by visiting the [Student Health & Wellness Center website](#) or by calling them at: 661-362-3259.

The National Suicide Lifeline number is 1-800-273- 8255 (TALK). Please call it if you or someone you know is having thoughts of suicide or is in severe distress - it could save someone's life.

You can also use the Crisis Text Line: Just text "Courage" to 741741. It's free, available 24/7, and confidential.

Veterans Resource Center

The College of the Canyons Veterans Resource Center is a department within the Student Services Division at the college, created to help veterans and veteran dependents with applying to College of the Canyons, enrolling in classes, and requesting VA Education or Vocational Benefits. For more information please visit the [Veterans Resource Center website](#), email veterans@canyons.edu or phone (661) 362-3469.