

Math 130 (Finite Math)

Fall 2020

Office: Samuelson 228

Office hours: M-Th 9:00-10:00 & by appointment steinst@cwu.edu

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Course Overview: At CWU, Finite math is one of the courses that can be selected to satisfy the reasoning requirement for graduation, and it is commonly taken as a prerequisite for statistics. It is real-world applicable and serves to prepare students for research and statistical courses at a later date.

It has been said that Finite math is for the information age. Finite math courses originated in the 1950's with the common orientation of studying finite, or discrete numbers, as opposed to the continuous problems investigated in Calculus. Finite Math courses typically include logic, set theory, counting principles, statistics and decision making

For final weighted averages falling in the following intervals, a student will earn at least the corresponding letter grade:

[93-100] = A [90-92] = A - [87 - 89] = B+ [83-86] = B [80-82] = B- [77-79] = C+
[73-76] = C [70-72] = C- [67-69] = D + [63-66] = D [60-62] = D- [Below 60] = F

Textbook:

Finite Mathematics, introductory probability & statistics (Owen & Cutlip) any edition

Topics covered:

1. Counting and probabilities
 - a. Sorting and counting of data, samples, or populations
 - b. Defining sample spaces and events
 - c. Set notation, the additive law, and the complement
 - d. Conditional probability
 - e. Bayes' theorem
 - f. Using the complement (reliability of systems).
2. Variables and probability distributions
 - a. Describing random variables
 - b. Measuring dispersion
 - c. Binomial distribution
 - d. Normal distribution
3. Introduction to Statistics
 - a. Graphical methods

- b. Measures of Central Tendency
 - c. Measures of dispersion
 - d. Confidence intervals
4. Using statistical tables
 - a. Binomial probability distributions
 - b. Standard normal distribution table

Student outcomes will include comprehension of topics as demonstrated by completion of assigned homework, quizzes, and tests. In addition, application of topics related to probability and statistics must be demonstrated by successful completion of projects. Quizzes will usually be an online, synchronous, on-on-one quiz and I will try to make sure you have an idea of what might be asked.

Evaluation and Assessment: homework, quizzes, tests, and project grades will be used to evaluate student learning and progress. Homework is assigned and submitted approximately every two weeks for a grade (**completion and correctness of answers and work—typically 5 random problems will be selected for grading**) and worksheets are completed as part of the “lecture” (typically completed as group work with instructor assistance). Homework should be scanned and uploaded into Canvas (**in one file and in a pdf**).

Note-- homework should be scanned and uploaded to Canvas in a single file and as a pdf (I just said that, so it must be important). When you submit it, **please do so in a single document**. *Also, while most of the homework problems are available in the solutions manual, I encourage you to not use this resource until after you attempt the homework.*

Another Note—I am happy to answer your questions on the homework and to do problems for you, especially in class. By grading hw problems I am encouraging you to pay attention to every problem and I want for you to do well grade wise!

The final is difficult and a number of students drop their grade by one letter grade.

Necessities

1. Participation- A reminder is always in order that math is not a “spectator sport”.
2. PLEASE, DO NOT ask me for an exception AFTER THE FACT. I will work to accommodate all needs and help you to be successful, but it is unprofessional to request an exception after something is due.
3. My cell phone number is provided for you when you have need to speak with me. If you text, please provide your name and the class.
4. Scientific calculator (TI- 83/84 is recommended)
5. Regular communication through office “hours”, email, or phone call.
6. Provide course feedback.

Calendar & Assignments: Are found under the “Syllabus” tab on Canvas-- this will be frustrating for some, but most due dates are not found on the calendar. Because I take feedback from students as the course progresses, and adjust accordingly, I do not have set due dates for specific assignments.

Canvas: Course materials will be posted on Canvas and all resources and links will also be available. You will find the syllabus, homework assignments, worksheets, and projects. Additionally, this is where you will upload your assignments.

I will do my best to meet the needs of all students. If you require specific accommodations, please provide me with your CWU documentation and discuss the needs during your meeting with me at the beginning of class.

Request for Disability Modifications: Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their "Confirmation of Eligibility for Academic Adjustments" from the Center for Disability Services as soon as possible so we can discuss how the approved adjustments will be implemented in class. Students without this form should contact the Center for Disability Services, Bouillon 140 or ds@cwu.edu or 963-1202

Inclusiveness Statement: Mutual respect amongst all class members must take place at all times. No bullying of any type will be allowed.