

# FINITE MATHEMATICS

Math 130-003, Spring 2018

M-F 10-10:50 AM, Hertz 121

**Instructor:** Tyler Suronen

**Office:** Black 225-40

**Office Hours:** M-F 11-11:50 AM

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**Text:** *Finite Mathematics: Introductory Probability and Statistics*, by William B. Owen and Wm. Frederick Cutlip

**Course Description:** Finite Mathematics is an introductory course in probability and statistics with some basic combinatorics.

**Course Objectives:** By the end of this course you will be prepared to:

- Discuss experiments in terms of sample space, outcomes, and events.
- Use rules of probability to determine the likelihood of events.
- Determine whether events are independent.
- Describe data using statistical measures.
- Give a confidence interval for the value of the mean.

**Required Materials:** The text, a graphing calculator, and internet access for Canvas and WeBWork. TI-83 or TI-84 are recommended and will be what I use in lectures. Other graphing calculator may be used, but I am not familiar with other makes or models and will not be as equipped to help.

[webwork.math.cwu.edu/webwork2/Math130Suronen/](http://webwork.math.cwu.edu/webwork2/Math130Suronen/)

**Attendance:** Daily attendance is not mandatory, but is highly recommended for your success in this course. Please bring your text and calculator to every lecture. If you are absent, you are responsible for obtaining any information or materials presented in lecture. You are welcome to e-mail me to ask what material we cover if you have been absent.

**Grade percent breakdown:**

- HW 15%
- Perfect Practice 20%
- Exams 45%
- Final Exam 20%

**Grades:** You must show all work. Answers without adequate justification will not receive full credit. Any kind of guess-and-check solution or remembering an answer will not suffice. Occasionally, answers without work or explanation will be acceptable (e.g. reading values from a graph). I will attempt to make clear the amount of detail necessary with examples in

lectures. Problems will be done by hand unless explicitly stated otherwise. Answers should be presented in exact form unless explicitly stated otherwise.

Your overall grade will be calculated by percentage of completed work with the following cutoffs.

$$\begin{aligned}90 &\leq A \\80 &\leq B < 90 \\70 &\leq C < 80 \\60 &\leq D < 70 \\F &< 60\end{aligned}$$

**Homework:** Homework will be assigned frequently in class. Homework is worth 15% of your total grade. The homework will reflect the material covered recently in class. It is expected that you keep up with the homework. You are expected to attempt all problems. Homework will typically be discussed in class on the day it is due. Most homework will be on WeBWork, but there may be additional assignments announced.

**Perfect Practice:** These are short tasks, usually one to three questions, which will be given in class to be done in 10-20 minutes. You may attempt the questions as many times as you like, but you must complete these questions before the end of the lecture with no mistakes. This ensures that you leave the class on the right track for the homework and also means you have an correct example of your own work to reference. If you fall behind on perfect practice you may turn them in by the end of that week, but no later. Perfect practice is worth 20% of your grade.

**Exams:** We will have 3 exams during the quarter and a final exam at the end of the quarter. The 3 exams will each cover roughly 2-3 weeks of the most recent material. Exams will take 55 minutes. Exams must be taken in class on the date given unless arranged in advance for necessary absence (see Late Work and Make-ups). The three exams together are worth 45% of your grade.

**Final Exam:** The final will be held on Wednesday June 6th 8-10:00 AM in our regular classroom. The final will be two hours long, the material will be comprehensive, and is worth 20% of your grade.

**Late work and Make-ups:** No late homework will be accepted. Early homework is welcome. Perfect practice are intended to be completed same day, but may be turned in later as per the above rules. They will not be given out later without good reason. Make-ups for exams are not given without good reason. Good reasons for absence include, but are not limited to, severe illness, required participation in school events, and work requirements. If you need to make-up an exam missed due to medical emergency I require a Doctor's note. In the event of unavoidable scheduling conflict for work: a note and contact information for your supervisor will be required in advance.

**Academic Dishonesty:** Cheating includes copying work, hinting, helping, and using notes/book (when not instructed to do so) on an in-class quiz or exam. Cheating will result in failure of the course and may have a larger impact on your standing with the university.

**Classroom Equity:** It is my duty as your instructor to provide a safe and inclusive environment for learning. As students you are expected to share this commitment. Our shared responsibility is to welcome everyone to learn and to treat each other with dignity and respect. Mutual respect and nondiscrimination includes freedom from sexual harassment. CWU policy defines sexual harassment as unwelcome, sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature under particular conditions. Title IX considers sexual harassment to be a form of discrimination. If you experience sexual harassment, or know someone who is being sexually harassed, you are encouraged to report concerns to me, another faculty member or employee, or to Gail Farmer, Equal Opportunity, at 509-963-2206, farmer@cwu.edu, Bouillon 205. Complete policies are available online at [www.cwu.edu/hr](http://www.cwu.edu/hr).

**Accessibility:** Students who have special needs or disabilities that may affect their ability to access information or material presented in this course are encouraged to contact me or the Center for Disability Services (cgs@cwu.edu, 963-1202, Bouillon 140).

### **Important Dates:**

March 27 First day of classes.

April 2 Add/Drop classes.

April 30 Summer registration begins.

May 7 Fall registration begins.

May 11 Uncontested withdrawal period deadline.

May 28 Memorial Day. No classes.

June 1 Last day of class instruction.

June 1 Hardship withdrawal petition deadline.

June 4 Study Day.

June 6 FINAL EXAM

**Other:** Our classroom time will be for three things: learning new material through lecture, practicing with examples, and testing. The majority of our time will be spent on these first two. Expect that the start of a classroom session may include either lecture or practice. When new concepts have been introduced, we'll reinforce them with examples that the class will work through together and then we'll spend time individually or in groups to practice the methods.

Participation is not graded, but it is essential for your learning! I will often ask for your input in class. I may ask for students to "give me the next step" or even present a full solution at the board. Questions are also welcome when not requested. The more input I have from you, the better I can facilitate your learning needs.

Math requires lots of practice. Plan to spend a 1-2 hours outside of class for every hour in class. Reading your notes and text will only get you so far. The deepest understanding comes from working through many examples and internalizing the concepts. Homework is

a starting point for this practice, but you may require additional work to understand the concepts. I recommend examples in the text for further practice.

**Resources:**

1. YOUR INSTRUCTOR: I'm available for additional help 5 days a week during my office hours. During office hours I can help you review material, work on practice problems, answer questions related to homework, etc. If you have questions that cannot wait, you don't need to wait for my office hours to ask: you're welcome to e-mail me.

2. YOUR TEXT: The majority of the material in this class is based on the text. I recommend you keep up with the material in the book as we cover it in class. The text also has practice problems and will make a decent study guide.

3. FELLOW STUDENTS: Form study groups, work through homework, share notes, etc. Borrow understanding from others and share your understanding with them.

4. LEARNING COMMONS: Tutoring and additional resources. For more information visit:

[www.cwu.edu/learning-commons/university-math-center](http://www.cwu.edu/learning-commons/university-math-center)

and

[www.cwu.edu/learning-commons/math-130](http://www.cwu.edu/learning-commons/math-130)