MATH 22

Discrete Mathematics Summer 2022

> "There are no secrets to success. Success is the result of preparation, hard work, and learning from failure."
> Colin Powell

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My office hours are times for conversation about the course and your work in it. I am here to answer questions, offer feedback, discuss a course concept, or just listen as you explore a line of reasoning. I can also direct you to resources to help you meet challenges you face outside of class.

Questions outside of office hours? I will respond to your message or email within 24 hours, M-F. If you do not get a response after 24 hours, please resend.

Textbook & Required Materials:

Text: Epp, Susanna. Discrete Mathematics: **An Introduction to Mathematical Reasoning**, Brief Edition. Cengage Learning, 2011.

Computer/smartphone to complete online homework assignments, submit activities on Canvas, and attend required live class meetings.
You should keep a **notebook** where you take notes and work the problems for reference.

Prerequisite:

MATH 32, 43 or 43H with a grade of C or better or equivalent, and CIS 22A or CIS 35A with a grade of C or better or equivalent.
Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273

Attendance:

Regular class participation is as vital in an online class as it is in a traditional classroom. You will be considered an active student if there is evidence of your participation in required course activities including, but not limited to, submitting an assignment, participating in an online discussion, and working in a group is your responsibility to drop yourself if you wish to drop the course.

Instructor Communication:

I am looking forward to working closely with you this term, and you can expect me to play an active role in our course. I will hold live lectures, post announcements every week, check your group work, and class discussions to help you understand course concepts, and provide detailed feedback on assignments within one week of submission. I will also answer questions throughout the term in Piazza and in our weekly discussions. Please let me know when you need help—that's why I'm here!

Canvas:
All class content, assignments and announcements will be on Canvas, which you can access through MyPortal. The course will be divided into weekly modules in Canvas. Weeks will run from Monday to Sunday, and all work for the week (including Discussions and HW) will be due Sunday night at 11:59 pm. The only exception to this is exams which will be timed. Please refer to the calendar.

Participation in online class:

Because this is an online class, there are no on-campus meetings to attend. However, this does not mean that you will be able to move through the class at your own speed. A major part of the class involves participation, discussing assignments and problems with your classmates.

Thus, everyone needs to be doing the same work at approximately the same time. You are expected to meet all deadlines for homework, and discussions. We are learning a lot of different concepts that build on one another and it is very difficult to catch up if you fall behind.

Group Activity:
There will be required group activities. Even though the problems will be discussed in group, write up your own solutions independently and upload them on Canvas.

1. Every member of the group will be taking a role.
2. Your name and your role should be written at the top of the first page.
3. Work must be NEAT and ORGANIZED. Do problems IN ORDER.
4. It is important for you to SHOW YOUR WORK! You are graded on the work you show to get the final answer, not just the final answer. Be sure to show your "scratch work" that goes with the problem.
5. Do your work underneath the assigned problem then circle your final answer.
6. Submit a single PDF document, NOT multiple images. Use a scanning app such as Adobe Scan or Genius Scan (both free), or something else from among many options. Be sure to check that your scanned copy is legible.

Discussions and Presentations:
There will be weekly discussion topics posted on Canvas. The deadline for responding to the topic is listed under the assignment in the module. You may not respond to the discussion once the deadline has passed.

Homework:

Written sets for submission: During the term, I will send out homework sets to be written up and submitted on Canvas. Homework is essential in any math class. You cannot expect to pass the class without putting consistent effort into homework. The deadline for submit the homework is listed under the assignment in the module.

HW Guidelines:

The process of solving homework problems reflected in step-by-step solutions. The following are some specific criteria:

Guidelines for homework:

1. Your name, class, and section number should be written at the top of the first page.
2. Work must be NEAT and ORGANIZED. Do problems IN ORDER.
3. It is important for you to SHOW YOUR WORK! You are graded on the work you show to get the final answer, not just the final answer. Be sure to show your "scratch work" that goes with the problem. Do your work underneath the assigned problem then circle your final answer.
4. At the end of each homework assignment, write a brief "Chat" paragraph

Projects:

Projects will be assigned throughout the quarter and will be worth 50 points. The deadline for submit the assigned week projects is Sunday 11:59 pm during that week.

Exam Reviews:

There will be an exam review assigned before each midterm exam. The purpose of the review is to aid the student in studying for the exams.

Midterm Exams:

There will be **Two exams** to test your understanding of the concepts from lecture and the homework. They should be straightforward for those who complete and understand the homework. A total of 300 points will be counted toward your final grade.

No make-up exams will be given. If you are forced to miss an exam, you need to contact me **before** the exam with a valid reason.

Final Exam:

The final exam will be posted on Canvas and will cover all material from throughout the term. You will have two hours to complete the final. More details on the final exam will be available on Canvas.

Exams will be Zoom proctored. Absolutely no makeup tests. If you were to miss an exam or quiz you must inform me of your emergency within 48 hours and provide me with the documentation relevant to your situation. If I don't consider your reasoning as an emergency or if you don't provide me with appropriate documentation in a timely manner, you will receive a zero for that test. Regardless, you will get zero for any other missed tests, emergency or not. Final is also a Zoom proctored exam. No makeups for the final can be provided. The final grade cannot be dropped.

Grading Policy:

Homework	100 pts (12.5%)
Discussion	100 pts (12.5%)
Projects	100 pts (12.5%)
Midterm Reviews/ Midterms	300 pts (37.5%)
Final	200 pts (25%)
Total	800 pts

Quarter grade:			
≥100%	**A+**	78-79.9%	**C+**
93-99.9%	**A**	70-77.9%	**C**
90-92.9%	**A-**	68-69.9%	**D+**
88-89.9%	**B+**	63-67.9%	**D**
83-87.9%	**B**	60-62.9%	**D-**
80-82.9%	**B-**	0-59.9%	**F**

Important Dates and Deadlines: http://www.deanza.edu/calendar/dates-and-deadlines.html

De Anza Final exams schedule: https://www.deanza.edu/calendar/final-exams.html

For detailed information on Homework, Projects, Discussion please log into your Canvas course page.

Academic Integrity:
All students are expected to exercise high levels of academic integrity throughout the quarter. You are encouraged to work together but you are expected to write up your answers independently. Any instances of cheating or plagiarism will result in disciplinary action, including getting a '0' on the assignment and report to the PSME dean, which may lead to dismissal from the class or the college

Student Honesty Policy:
"Students are expected to exercise academic honesty and integrity. Violations such as cheating and plagiarism will result in disciplinary action which may include recommendation for dismissal."

Disabled Services:
Students who have been found to be eligible for accommodations by Disability Support Services (DSS), please follow up to ensure that your accommodations have been authorized for the current quarter. If you are not registered with DSS and need accommodations, please go to http://www.deanza.edu/dss.

This syllabus is subject to change at the instructor's discretion. Changes will be announced in class and on Canvas.

Recipe for Success:

- If you ever have any questions, Email me! You are welcome to send email to me whenever you need help!
- Visit the Online Tutoring Center.
- Form an online study group.
- Watch all lectures, participate in every discussion, and complete every homework assignment.
- Read the sections to be discussed in class prior to the lecture

Section	Course Content
Chapter 1	Speaking Mathematically
Chapter 2	The Logic of Compound Statements
Chapter 3	The Logic of Quantified Statements
Chapter 4	Elementary Number Theory and Methods of Proof
Chapter 5	Sequences, Mathematical Induction, and Recursion
Chapter 6	Set Theory
Chapter 7	Functions
Chapter 8	Relations
Chapter 9	Counting and Probability
Chapter 10	Graphs and Trees

Tentative Schedule

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	Friday	Sunday
1	Ch 1	Ch 1	Ch2	Ch 2		HW 1 Due
2	Ch 3	Ch 3	Ch 4	Ch 4		HW 2 Due
3	Ch 4	Ch 5	Ch 5	Exam 1 (ch 1-3)		HW 3 Due
4	Ch 6	Ch 6	Ch 7	Ch 7		HW 4 Due
5	Ch 8	Ch 8	Ch 9	Exam 2 (ch 4-6)		HW 5 Due
6	Ch 9/ 10	Ch 10	Ch 10	**Final Exam**		HW 6 Due

Student Learning Outcome(s):

*Critique a mathematical statement for its truth value, defend choice by formulating a mathematical proof or constructing a counterexample.
*Analyze and apply patterns of discrete mathematical structures to demonstrate mathematical thinking.

Office Hours:

Zoom	TH	02:15 PM	02:00 PM