# MATH D022.62.46471 Discrete Mathematics Spring 2020

**Instructor:** Fatemeh Yarahmadi

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**Class Location and Time:** Mon/ Wed 06:30 PM-08:45 PM Online through Zoom (Link is posted on Canvas)

Office Hours: Friday 10-11 Through Zoom (Link is posted on Canvas)

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

**Class Website: Canvas** which you can access through MyPortal to check grades, weekly announcements and assignments.

**Prerequisite:** MATH 43 or MATH 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.

**Course Description:** Elements of discrete mathematics with applications to computer science. Topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.

**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, quizzes, 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.

Time management is critical in an online course. Attendance is required via actively participating online discussions through Canvas and Piazza.

#### Sources of Help:

1- Piazza (Online Question and Answer Platform) piazza.com (Code is posted on Canvas)

2- Nettutor: https://www.youtube.com/watch?time\_continue=5&v=VlrPU34FzuY&feature=emb\_logo

### Homework:

Written sets for submission: During the term, I will send out homework sets to be written

up and submitted on Canvas. These sets will include problem solving, critical thinking and applications exercises. Write your homework out in full detail, as modeled in the textbook and in class. There will be a strong emphasis on how the solutions are written up in this class. A subset of these exercises will be graded for correctness and all of it will be graded for completeness.

## **HW Guidelines:**

- Write your full name in the top right hand corner of the first page.
- Upload them on Canvas

**Discussions**: There will be weekly discussion topics posted throughout the quarter. The deadline for

responding to the topic will be indicated when the assignment is posted. You may not respond to the

discussion once the deadline has passed.

**Projects**: Seven projects will be assigned throughout the quarter and each will be worth 10 points.

Project due dates are indicated on the calendar and Canvas.

**Exam Reviews:** There will be an exam review assigned before each exam worth 10 points each. The purpose of the review is to aid the student in studying for the exams.

**Exams:** There will be **three 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. Each exam will be worth 100 points. 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:** A comprehensive final exam worth 200 points will be given on the last day of the class.

# **Grading Policy:**

Homework	(20 @ 4 pts)	11.43%
Canvas and Pizza Discussion	(10 Topics @ 2 pts)	2.86%
Projects	(7 @ 10 pts)	10%
Midterm Review	(3 @ 10 pts)	4.29%
Midterms	(3 @ 100)	42.86%
Final	200	28.57%
Total	700	
Final	200	

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

#### Attendance:

Students may be dropped from the class if they stop participating. I may decide to drop you unless

you convince me of your motivation to stay, and your grades support this motivation.

**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."

**Disability Statement:** De Anza College makes reasonable accommodations for people with documented disabilities. Please notify Disability Support Services (DSS) if you have any physical, psychological or other disabilities, vision, hearing impairments or ADD/ADHD. DSS is located in the student community services building, room 141. Phone number: 408-864-8753.

### **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. (Nettutor)
- 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

		Sp	oring 202	0 Calenda	r			
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Wee
		6	7			0	11	
April								
12	12	<b>13</b> Chapter 1	14	<b>15</b> Chapter 1/ Chapter 2	16	17	18	
	19	20	21	22	23	24 Last day	25 Last	
		Chapter 2/		Chapter 3/		to drop no	day to add	
		Chapter 3		Chapter 4		shows	class	
	26 Deadline to drop	<b>27</b> Chapter 4/	28	<b>29</b> Chapter 5/	30	1	2	
May	w/refund	Chapter 5		Chapter 6				
3	СН 1,2,3,4	<b>4</b> Exam 1	5	6 Midterm 1			9	
	HW Due	Review						
	10 • Happy •	<b>11</b> Chapter 5/ Chapter 6	12	<b>13</b> Chapter 6/ Chapter 7	14	15	16	
	<u>• Hotkar Day</u> •	18	19	20	21	22	23	-
		Chapter 7/ Chapter 8		Chapter 8/ Chapter 9			20	
	24	25 Holiday	26	27	28	29	30	
	CH 5,6,7,8 HW Due	Memorial Day		Midterm 2				
	31	1	2	3		Deadline	6	
June		Chapter 9/ Chapter 10		Chapter 10		to drop with "W"		
7 CH 9,10 HW Due 14 21	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	8	9	10	11	12	13	
		Exam 3 Review		Midterm 3				1
	15	16	17	18	19	22		
		Final Review		Final Review				1
	21	22	23	24	25	26	27	
	HAPPY		FIN A	i 1	N E E M	$\dot{\leftarrow}$		

# 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.