Math 22-61Z, Summer, 2024

#### **SYLLABUS**

Instructor: Dr. Kejian Shi e-mail: shikejian@fhda.edu

**Prerequisites:** MATH 32 or MATH 32H (with a grade of C or better) or equivalent, and CIS 22A or CIS

35A (with a grade of C or better) or equivalent.

**Textbook:** Discrete Mathematics, Brief Edition, by Susanna S. Epp

Materials: A scientific calculator recommended

Attendance: This class is an online class. My daily lecture videos will be posted on the Canvas. Students are

expected to follow the schedule to watch and study the videos. The videos can be watched multiple times. Questions will be answered through email. (It is the students' responsibility to drop by the appropriate deadline. Petitions to drop after the deadline will not be considered by the

instructor.)

**Homework:** Homework is the key to success in this class. Plan to devote a minimum of **TWO hours** to

homework for each class lesson. Homework assignments are due on the test (quiz or midterm) days and should be submitted to canvas. Each collection counts 10 points, the total is 60 points.

Quizzes: Three Quizzes (33, 33, and 34 points) will be given from 8:00pm-8:45pm on the quiz day (see

schedule). No makeup quizzes. The lowest quiz score will be replaced by the average of the two

highest quiz scores.

Midterms: <u>Two</u> midterm examinations (100 points each) will be given from **8:00pm-9:00pm** on the midterm

exam day (see schedule). No makeup tests. The lowest midterm score will be replaced by the

percentage of the final exam if the final percentage is higher.

Final Exam: One comprehensive final examination will be given from 8:00pm-10:00pm on Thursday,

August 8, 2024. Any student missing the final will receive an F grade for the course.

**Integrity:** Any types of cheating are not tolerated. Corresponding school rules will be followed.

Grading:	Distribution	L			<u>Scale</u>	
	Homework	60	Gra	ade	Points	Percentage
			A	<b>\</b> + 5	529-560	95%-100%
			A	A 5	501-528	90%-94%
	Quizzes	100	A	<b>\</b> - 4	490-500	88%-89%
			E	3+	473-489	85%-87%
			E	3 4	445-472	80%-84%
	Midterms	200	E	3- 4	434-444	78%-79%
			(	C+ 4	417-433	75%-77%
			(	2 3	361-416	65%-74%
	Final Exam	200	Ι	D+ 3	333-360	60%-64%
			Γ	) 3	322-332	58%-59%
			Γ	D- 3	305-321	55%-57%
	Total	560	F	7	0-304	0%-54%

## **Tentative Schedule:**

	MON	TUE	WED	THU	FRI	SAT	SUN
	1	2	3	4	5	6	7
July		Last day to get					
		refund		Holiday			
	1.1, 1.2, 1.3	2.1, 2.2, 2.3	3.1, 3.2, 3.3	(No class)			
	8	9	10	11	12	13	14
July	3.4, 4.1	census day	4.5, 4.6	5.1			
	Quiz #1 8:00pm-			TEST #1			
	8:45pm	4.2, 4.3, 4.4	Review	8:00pm-9:00pm			
	15	16	17	18	19	20	21
July				6.3, 6.4			
				Quiz #2			
	5.2, 5.3, 5.4	5.5, 5.6	6.1, 6.2	8:00pm-8:45pm			
	22	23	24	25	26	27	28
July			8.1, 8.2	8.3			
				TEST #2			
	7.1, 7.2	7.3, 7.4	Review	8:00pm-9:00pm			
July	29	30	31	1	2	3	4
1		Last day to		9.6			
August		drop with "W"		Quiz #3			
	8.5, 9.1	9.2, 9.3	9.4, 9.5	8:00pm-8:45pm			
	5	6	7	8	9	10	11
August							
				FINAL EXAM			
	10.1, 10.2	10.3, 10.4	Review	8:00pm-10:00pm			

# **Homework Problems:**

Sections	Problems (Epp, Brief Ed.)					
1.1	1, 2, 3,, 13.					
1.2	1, 2, 3,, 12.					
1.3	2, 4, 6,, 20.					
2.1	2 - 5, 8, 9, 13 - 17, 22, 26, 28, 31, 33, 35, 42 - 44, 46.					
2.2						
2.3	2, 4, 8, 10, 13, 14b, 17, 18, 20, 22, 25, 27, 33, 35, 38, 41, 43, 44, 46. 2, 4, 11, 12b, 20, 21, 23, 28, 29, 31, 32, 36, 38, 40, 42.					
3.1	4, 6, 7, 9, 10, 15, 16, 18, 23, 24, 28, 32.					
3.2	3, 5, 8, 10, 12, 19, 21, 23, 29, 31, 33, 38, 40, 44, 47.					
3.3	11, 14, 16, 17, 19, 23, 30, 35, 36, 41, 43, 44.					
3.4	4, 6, 11, 12, 14, 15, 17, 19, 22, 24, 26.					
4.1	5, 12, 30, 32, 36, 41, 42, 46, 52, 53, 57, 58.					
4.2	5, 14, 19, 23, 26, 28, 30.					
4.3	3, 5, 13, 18, 23, 24, 26, 28, 36, 37, 41, 46, 49.					
4.4	2, 4, 8, 9, 15, 19, 22, 25,30, 37, 38, 43.					
4.5	7, 10, 15, 17, 20, 24, 29, 33, 34c.					
4.6	2, 4, 8, 10 11, 15,23, 28, 33.					
5.1	2, 4, 9, 11, 17, 29, 31, 43, 47, 49, 52, 53, 55, 59, 61, 63, 65, 68, 72.					
	4, 7, 9, 12, 16, 17, 18, 23, 27, 32.					
5.3	2, 3, 7, 9, 15, 17, 20, 25, 29.					
5.4	1, 3, 5, 7, 9, 15, 17, 18.					
5.5	2, 4, 8, 12, 14, 16, 19, 22, 26, 32.					
5.6	4, 7, 8, 13, 20, 23, 25, 33, 38, 52.					
6.1	3, 6, 8, 9, 12, 14, 17, 18, 20,23, 27, 30, 33.					
6.2	2, 7, 9, 14, 19, 21, 23b, 26, 31, 35, 39.					
6.3	2, 8, 13, 16, 19, 20, 32, 35, 43.					
6.4	2, 3, 5, 9, 11aii, 11aii, 11av, 11b.					
7.1	2, 4, 10, 12, 22, 23, 27, 35, 37, 39, 42.					
7.2	2, 5, 7, 9, 11, 16, 17, 20, 23, 30, 33, 37.					
7.3	2, 4, 7, 10, 11, 17, 19, 22, 24, 25.					
7.4	3, 4, 8, 9, 11, 15, 17, 18, 22, 27, 34.					
8.1	3, 5, 7, 8, 17, 18, 20 21.					
8.2	2, 10, 13, 17, 19, 21, 21, 26, 30, 38, 42.					
8.3	2, 4, 6, 9, 10,13, 14, 17, 19, 24, 40.					
8.5	2, 4, 6, 8, 10, 12, 14.					
9.1	4, 6, 8, 10, 13, 14, 16, 19, 21, 22, 24, 26.					
9.2	5, 11, 14, 15, 18, 21, 22, 24, 26, 27, 30, 33, 36.					
9.3	6, 11, 20, 23, 25, 29, 32, 35.					
9.4	2, 4, 8, 13, 16, 19, 23, 25, 28, 30, 31, 36.					
9.5	4, 5, 7, 10, 12, 14, 17, 20, 22, 24, 25, 26a-d, 28, 30.					
9.6	5, 9, 11, 14, 16, 17, 30, 34, 37, 44, 49, 54.					
10.1	4, 6, 9, 16, 19, 22, 26c, 27, 33, 37, 39, 40, 44.					
10.2	2, 5, 6, 8, 13, 15, 20, 22, 29, 30, 32, 33, 47.					
10.3	3, 7, 15, 17, 19, 23, 26, 29.					
10.4	2, 3, 5, 7, 11, 14, 17, 19, 20.					

## **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:**