

## SYLLABUS

**Instructor:** Dr. Kejian Shi  
**e-mail:** shikejian@fhda.edu  
**Office Hour:** Monday, 10:00am-11:00am virtual office hour via zoom on canvas

**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 synchronous class**. All my lecture videos will be posted on the Canvas. Students are expected to watch and study the videos following the **schedule**. The best way to study is to watch the video ahead of schedule. I will talk about the material during the class based on your questions. The videos can be watched multiple times. Questions will be answered during class time, office hours, or 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 hour.

**Quizzes:** **Three Quizzes** (33, 33, and 34 points) will be given from **2:45pm-3:45pm** on the quiz day. No makeup quizzes. Quiz problems are similar to homework problems and lecture examples.

**Midterms:** **Two midterm examinations** (100 points each) will be given from **1:45pm-3:45pm** on the midterm exam day. No makeup except for extenuating circumstances assuming the student notifies the instructor as soon as the emergency arises.

**Final Exam:** **One comprehensive examination** will be given from **8:00pm-11:00pm** on **Tuesday, March 28, 2023**. 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:	<u>Distribution</u>		<u>Scale</u>		
			Grade	Points	Percentage
Quizzes	100		A+	473-500	95%-100%
			A	448-472	90%-94%
			A-	438-447	88%-89%
			B+	423-437	85%-87%
Midterms	200		B	398-422	80%-84%
			B-	388-397	78%-79%
			C+	373-387	75%-77%
			C	323-372	65%-74%
Final Exam	200		D+	298-322	60%-64%
			D	288-297	58%-59%
			D-	273-287	55%-57%
			F	0-272	0%-54%
	Total	500			

Math 22-23Z Tentative Schedule (Winter 2023)

Winter 2023								
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	Wk
Jan	9 INSTRUCTION BEGINS	10 1.1, 1.2, 1.3	11	12 2.1, 2.2, 2.3	13	14	15	1
Jan	16 M L K Holiday (No class)	17 3.1, 3.2, 3.3	18	19 3.4 Quiz #1 2:45pm-3:45pm	20	21 <i>Last Day to Add</i>	22 <i>Last Day to Drop without a W</i>	2
Jan	23 Census Day	24 4.2, 4.3	25	26 4.4, 4.5, 4.6	27	28	29	3
Jan / Feb	30	31 Review 5.1, 5.2	1	2 Exam #1 1:45pm-3:45pm	3	4	5	4
Feb	6	7 Solutions 5.3, 5.4	8	9 5.5, 5.6	10	11	12	5
Feb	13	14 6.1, 6.2	15	16 6.3 Quiz #2 2:45pm-3:45pm	17 <i>Lincoln's B-Day Holiday (No class)</i>	18 <i>President's Weekend</i>	19	6
Feb	20 <i>Washington's B-day Holiday</i>	21 6.4, 7.1	22	23 7.2, 7.3, 7.4	24	25	26	7
Feb / March	27	28 Review 8.1, 8.2	1	2 Exam #2 1:45pm-3:45pm	3 <i>Last day: drop with a W</i>	4	5	8
March	6	7 Solutions 8.3, 8.5	8	9 9.1, 9.2, 9.3	10	11	12	9
March	13	14 9.4, 9.5	15	16 9.6 Quiz #3 2:45pm-3:45pm	17	18	19	10
March	20	21 10.1, 10.2, 10.3	22	23 10.4 Review	24	25	26	11
March / April	27	28 Final Exam 8:00pm-11:00pm	29	30	31	1	2	12

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, 4, 8, 10, 13, 14b, 17, 18, 20, 22, 25, 27, 33, 35, 38, 41, 43, 44, 46.
2.3	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.
5.2	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, 11a <sub>ii</sub> , 11a <sub>iii</sub> , 11a <sub>v</sub> , 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:**

M,T,W,TH    10:00 AM    11:00 AM    Zoom