

SYLLABUS

Instructor: Dr. Kejian Shi
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Prerequisites: Math 43 (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 watch and study the videos on every school day. Different people can watch at different time during the day. 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 lecture.

Quizzes: **Three Quizzes** (33, 33, and 34 points) will be given from **6:00pm-7:00pm** on the quiz day (see the schedule). No makeup quizzes. The lowest quiz score will be replaced by the average of the two highest quiz scores.

Midterms: **Two midterm examinations** (100 points each) will be given from **6:00pm-8:00pm** on the midterm exam day (see the schedule). No makeup tests. The lowest midterm score will be replaced by the percentage of the final exam if the final percentage is higher. (In the case that the two midterm scores are the same, only one will be replaced.)

Final Exam: **One comprehensive examination** will be given from **6:00pm-9:00pm** on **Thursday, August 5, 2021**. 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%
			B	398-422	80%-84%
Midterms	200		B-	388-397	78%-79%
			C+	373-387	75%-77%
			C	323-372	65%-74%
			D+	298-322	60%-64%
			D	288-297	58%-59%
Final Exam	200		D-	273-287	55%-57%
			F	0-272	0%-54%

	Total	500			

Math 22-50Z Tentative Schedule (Summer 2021):

	MON	TUE	WED	THU	FRI	SAT	SUN
June / July	28 1.1--1.3	29 2.1--2.3	30 3.1--3.3	1 3.4, 4.1 Quiz #1	2	3	4
July	5 Holiday (No class)	6 Solution 4.2--4.4	7 4.5, 4.6 Review	8 TEST #1	9	10	11
July	12 Solution 5.1--5.3	13 5.5, 5.6	14 6.1, 6.2	15 6.3 Quiz #2	16	17	18
July	19 Solution 7.1, 7.2	20 7.3, 7.4	21 8.1, 8.2 Review	22 TEST #2	23	24	25
July / August	26 Solution 8.3, 9.1	27 9.2, 9.3	28 9.4, 9.5	29 9.6 Quiz #3	30	31	1
August	2 Solution 10.1, 10.2	3 10.3, 10.4	4 Review	5 FINAL EXAM	6	7	8

Homework Problems:

Sections	Problems
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.
5.5	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.
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.
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.