

SYLLABUS

Instructor: Dr. Kejian Shi
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Office Hour: All questions will be answered through email.

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 class lesson.

Quizzes: **Three Quizzes** (33, 33, and 34 points) will be given from **6:00pm-7:00pm** on the quiz day. 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. 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 examination** will be given from **6:00pm-9:00pm** on **Tuesday, June 22, 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%
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			

Tentative Schedule:

	MON	TUE	WED	THUR	FRI	SAT	SUN	Wk
APL	5 1.1	6 1.2	7 1.3	8 2.1	9 2.2	10	11	1
APL	12 2.3	13 3.1	14 3.2	15 3.3	16 Quiz #1	17 Last day to add Drop for refund	18 Last day to drop with no record	2
APL	19 3.4	20 4.1	21 4.2	22 4.3	23 4.4	24	25	3
APL / MAY	26 4.5	27 4.6	28 5.1	29 Review	30 Request P/NP Exam #1	1	2	4
MAY	3 Solution	4 5.2	5 5.2, 5.3	6 5.3	7 5.5	8	9	5
MAY	10 5.6	11 6.1	12 6.2	13 6.3	14 Quiz#2	15	16	6
MAY	17 6.4	18 7.1	19 7.2	20 7.3	21 7.4	22	23	7
MAY	24 8.1	25 8.2	26 8.3	27 Review	28 Drop with "W" Exam #2	29	30	8
MAY / JUN	31 MEMORIAL DAY HOLIDAY	1 Solution	2 9.1	3 9.2	4 9.3	5	6	9
JUN	7 9.4	8 9.5	9 9.5, 9.6	10 9.6	11 Quiz #3	12	13	10
JUN	14 10.1	15 10.2	16 10.3	17 10.4	18 Review	19	20	11
JUN	21	22 Final Exam 6:00pm-9:00	23	24	25	26	27	12
JUL / AUG	28 SUMMER BEGINS	29	30	1	2	3	4	1

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.