

Math 22-3, 8:30 a.m. -- 9:20, MTWThF, Room: S54, Winter, 2020

## SYLLABUS

**Instructor:** Dr. Kejian Shi  
**e-mail:** shikejian@fhda.edu  
**Office & Phone:** S-16A, (408)864-8481  
**Office Hour:** **MTWTh:** 10:30 --11:00 a.m., 1:30 p.m. – 2:00, and **F:** 10:30 --11:00 a.m. or by appointment

**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:** Students are expected to attend all classes on time. **It is the students' responsibility to drop by the appropriate deadline. Petitions to drop after the dead line will not be considered by the instructor.**

**Homework:** **Three Homework sets** will be collected, each on **the examination days** (20 points for each collection). No late hws will be accepted. Hw is the key to success in this class. Plan to devote a minimum of **TWO hours** to hw for each class hour.

**Quizzes:** **Three Quizzes** (33, 33, and 34 points) will be given in class. No makeup quizzes. Quiz problems are similar to homework problems and lecture examples.

**Midterms:** **Two one-class-hour midterm examinations** (100 points each) will be given in class. No makeup except for extenuating circumstances assuming the student notifies the instructor as soon as the emergency arises.

**Final Exam:** **One two-hour comprehensive examination** will be given on **Wednesday, 3/25/ 2020**, from **7:00am–9:00am**. 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
Attendance	40		A+	567-600	95%-100%
			A	537-566	90%-94%
Homework	60		A-	525-536	88%-89%
			B+	507-524	85%-87%
			B	477-506	80%-84%
Quizzes	100		B-	465-476	78%-79%
			C+	447-464	75%-77%
			C	387-446	65%-74%
Midterms	200		D+	357-386	60%-64%
			D	345-356	58%-59%
			D-	327-344	55%-57%
Final Exam	200		F	0-326	0%-54%
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Total	600				

**Tentative Schedule:**

Winter 2020								
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	Wk
Jan	6 INSTRUCTION BEGINS 1.1	7 1.2	8 1.3	9 2.1	10 2.2	11	12	1
Jan	13 2.3	14 3.1	15 3.2	16 3.3	17 Review Quiz #1	18 <i>Last Day to Add</i>	19 <i>Last Day to Drop with refund/credit, with no record.</i>	2
Jan	20 ML K Holiday No Class	21 Solutions 3.4	22 4.1	23 4.2	24 4.3	25	26	3
Jan / Feb	27 4.4	28 4.5	29 4.6	30 Review Hw/Proj.1 Due	31 <i>Last day to request P/NP Exam #1</i>	1	2	4
Feb	3 Solution	4 5.1	5 5.2	6 5.3	7 5.5	8	9	5
Feb	10 5.6	11 6.1	12 6.2	13 Review Quiz #2	14 <i>Lincoln's B-Day Holiday No Class</i>	15 <i>President's Weekend</i>	16	6
Feb	17 <i>Washington's B-day Holiday No Class</i>	18 Solution 6.3	19 6.4	20 7.1	21 7.2	22	23	7
Feb / March	24 7.3	25 7.4	26 8.1	27 Review Hw/Proj.2 Due	28 <i>Last Day to drop with a W Exam #2</i>	29	1 <i>Last day to file Winter degree or certificate</i>	8
March	2 Solution	3 8.2	4 8.3	5 9.1	6 9.2	7	8	9
March	9 9.3	10 9.4	11 9.5	12 9.6	13 Review Quiz #3	14	15	10
March	16 Solution 10.1	17 10.2	18 10.3	19 10.4	20 Review Hw/Proj. 3 Due	21	22	11
March	23	24	25 FINAL EXAM 7:00AM-9:00	26	27	28	29	12
March / April	30	31	1	2	3	4	5	0
April	6 SPRING INSTRUCTION BEGIN	7	8	9	10	11	12	1

## Homework Problems:

Sections	Problems
	<b>HW #1</b>
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.
	<b>HW#2</b>
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.
6.4	2, 3, 5, 9, 11aii, 11aiii, 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.
	<b>HW#3</b>
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.