Math Methods (COSC 030) Summer 2022

PROFESSOR:

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OFFICE HOURS:

M-R: 2.00 - 3.00 PM or by appointment.

TEACHING ASSISTANTS:

Name	Office Hours	Location	Email
XXX	XXX	XXX	XXX@georgetown.edu

TEXT:
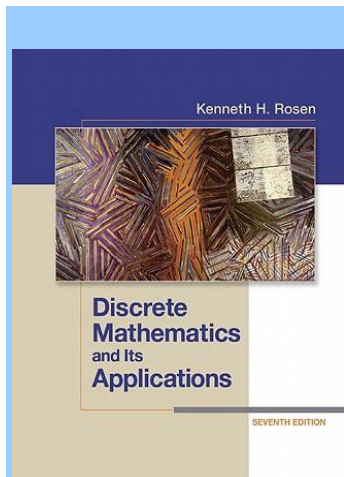
Discrete Mathematics and its Applications	Kenneth H. Rosen (7th Ed) (required)	
Publisher	McGraw Hill	
ISBN:	978-0-07-338309-5	

SYNOPSIS:

This course, designed to be taken concurrently with COSC 052, covers mathematical tools and principles that are valuable to the computer scientist. Topics are generally in the domain of discrete, rather than continuous, mathematics, and include, propositional and predicate logic; mathematical proofs, including induction; counting and basic probability theory; logarithmic and exponential functions; elementary graph theory; and "Big-O" notation and asymptotics.

Notes:

Will be available after each class

OURSE REQUIREMENTS:

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Home Work:    60% of your final grade
Mid-Term 1:   15% of your final grade
Finals:       25% of your final grade
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IMPORTANT DATES:

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Mid-Term 1:   June 23 (R)
Finals:       July  7 (R)
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COURSE SCHEDULE:

Lec	Topic	Reading
1	Logic and Proofs	Chap 1
2	Sets and Fuctions	Chap 2
3	Algorithms	Chap 3
4	Number Theory	Chap 4
5	Induction and Recursion	Chap 5
6	Induction and Recursion	Chap 5
7	Counting	Chap 6
8	Counting	Chap 6
9	Probability	Chap 7
10	Recurence Relations	Chap 8
11	Recurence Relations	Chap 8
12	Relations	Chap 9
13	Graphs	Chap 10
14	Trees	Chap 11
15	Boolean Algebra	Chap 12
16	Boolean Algebra	Chap 12
17	Modeling and Computation	Chap 13
18	Modeling and Computation	Chap 13

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HOME WORK:
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Home Work	Given	Due	Pts	Problems	Sol
1	6-6	6-8	20	hw1	sol
2	6-7	6-9	20	hw2	sol
3	6-8	6-10	20	hw3	sol
4	6-09	6-14	20	hw4	sol
5	6-13	6-15	20	hw5	sol
6	6-14	6-16	20	hw6	sol
7	6-15	6-17	20	hw7	sol
8	6-16	6-21	20	hw8	sol
9	6-20	6-22	20	hw9	sol
10	6-21	6-23	20	hw10	sol
11	6-22	6-24	20	hw11	sol
12	6-27	6-28	20	hw12	sol
13	6-28	6-29	20	hw13	sol
14	6-29	6-30	20	hw14	sol
15	6-30	7-01	20	hw15	sol
16	7-05	7-06	20	hw16	sol
17	7-06	7-07	20	hw17	sol

COURSE POLICY:

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1. All  Home works should be turned in at the
   beginning of the class.  Keep the graded home works
   until the semester is over.

2. Late Home work will  NOT  be accepted.
   If you cannot make it to class,
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its your responsibility to turn it in prior
to the due date.

3. Makeups and extensions will be given only under
extreme circumstances (Eg: medical reasons).

COURSE ETHICS:

You can discuss the questions with your classmates, but do not
copy the solutions.