

COMP 2700 – Discrete Structures – Fall 2018

Instructor: Nirman Kumar

Contact Information:

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Office hours: Dunn Hall 307, Monday: 12:30-1:30 or by appointment (send email).

Course website: <https://umdrive.memphis.edu/nkumar8/public/courses/FA18/2700/2700.html>

Check the webpage for the schedule of classes, HW's, material covered in a lecture, etc. I will also send email once I post the Homeworks.

TA's: There are two TA's assigned. TA office hours will be held in DH 314. The TA's are:

- Ravi (email: rbandaru@memphis.edu, office hours M W : 11-12)
- Tharun Konkala (tkonkala@memphis.edu, office hours T Th : 11-12)

Lectures: M W : 2:20 PM - 4:20 pm, Fogelman Classroom Bldng 131.

Textbook: *Discrete Mathematics and Its Applications (Seventh Ed.)* by Kenneth H. Rosen.

Grading: The grading items, number of each and their total weights (tentative) are (1) Problem sets (6/30%), (2) Quizzes - 10%, (3) Problem solving and class participation - 5% (4) Programming assignments (3/15%), (3) Mid-term exams (2/20%), (4) Final exam (1/20%).

Course outcomes: The course aims for the following outcomes (at the least):

1. Convert between binary and decimal number systems.
2. Manipulate binary numbers.
3. Understand propositional and predicate logic.
4. Write simple proofs using contradiction or contraposition.
5. Write simple proofs using induction.
6. Understand the difference between sets, permutations, and graphs.
7. Understand and apply principles of counting including permutations, combinations.
8. Understand recursively defined sets.
9. Understand the pigeonhole principle.

Problem Sets: Problem sets are due one week later after they are assigned (unless otherwise noted). Late submissions will not be accepted except under extreme conditions. Your solutions must be either typed (Latex, MS word), or neatly printed. You may work with others on assignments, but each student must turn in his or her own work and name all co-workers. As always, the Plagiarism/Cheating Policy applies. Show your work. You will be graded on the following factors:

1. Correctness,
2. Completeness, and

3. Critical thinking.

Programming Assignments: Programming assignments are due one week after they are assigned (unless otherwise noted). Late submissions will not be accepted except under extreme conditions. As always, the Plagiarism/Cheating Policy applies.

You will submit your completed programming assignments to the appropriate dropbox on eLearn. Include all test cases you ran to validate your program. Partial credit will be awarded, so please turn your solution in even if it doesn't run perfectly.

Exams: There are 2 scheduled exams for this course, plus a final. Other than the final exam, all exams will be taken during the lecture period.

You must be on-time to lecture on exam days. If you miss an exam, you will receive a zero. Under documented, extreme circumstances, other arrangements may be made, but I expect you to reach out to me in advance of the scheduled exam date. The better of the two mid-terms will be considered for each student, however attendance during the exam is compulsory-unless prior approval for absence is taken, or if an emergency arises-proof of such must be provided.

Attendance: Each class has 30 minute period at the end devoted to either a quiz or to problem solving. The students will be encouraged to step up and solve a problem related to the material covered that day or in the recent past on the white board. Regardless of whether you succeed, *participation is encouraged and counts for points. So step up and try to solve the problem.* In order to give chance to all the students, TA's may assign who should step up and solve the problem. This also means that **you attend classes regularly** otherwise you can miss quizzes or problem solving sessions.

It is encouraged that you come to office hours and/or GA office hours but such attendance will not count towards the points for attendance.

All material I cover in class is fair game for problem sets and exam questions. If I say something that is not in the textbook you may well be graded on it.

When you come to class, I ask that you be fully present. Please be respectful of your fellow students, me, and the TA's, by participating attentively and non-disruptively. If you have a question related to the material being taught, please raise your hand.

Late submissions: All assignments are expected to be completed and turned in on schedule. Due dates will be clearly indicated for each assignment.

Late assignments are NOT accepted except in extreme circumstances. If you feel that your circumstances warrant a late submission, get in touch with me as soon as possible.

Makeup exams: Makeup exams will be given only under extreme circumstances. If you feel that your circumstances warrant a makeup quiz/exam, get in touch with me as soon as possible.

Student Disabilities: If you have a disability that may require assistance or accommodations, or if you have any questions related to any accommodation for testing, note taking, reading, etc., please speak with me as soon as possible. You must contact the Student Disability Services Office (678-2880) to officially request such accommodations / services.

Plagiarism/Cheating policy: All assignments for this class are to be written individually.

You may refer to a book, or the Internet or some other source but in that case, please acknowledge all such sources in your submission. You may work with other students in the course, and I encourage you to do so, but as stated above, every student must write and submit their own assignment. **There should be no direct copying from the assignment of your co-workers, and you are required to name your co-workers.**

If I determine that you copied something directly from an external source (book, Internet, or some other source), you will receive a failing grade on the assignment and (at my discretion) a failing grade in the course. If I determine that you have copied another student's assignment, this will happen to both you and the person from whom you copied. The incident may also be forwarded to the University Judicial Affairs Office for further disciplinary action.