

## CSCI 243 – Discrete Structures

### General Info:

- **Instructor:** Dr. Tianran Hu, [thu@cs.wm.edu](mailto:thu@cs.wm.edu)
- **When & Where:** T+Th 2:00 pm - 3:20 pm, [cwm.zoom.us/j/95960410969](https://cwm.zoom.us/j/95960410969)
- **TA:** Yidong Gong, [ygong07@email.wm.edu](mailto:ygong07@email.wm.edu)
- **Office Hours:** T+Th 3:30-5:00 pm (Dr.Hu), M+W 9:00-10:30 am (Yidong)
- **Textbook:** Kenneth H. Rosen, Discrete Mathematics and Its Applications, 8th or 7th edition
- **Prerequisites:** CS140 or its AP equivalent

### Attention:

- To join the class you need to **login** you WM account on Zoom.
- Textbook is NOT required. I will share the material on the course page.
- Homework will be released on every Thursday and is due on the next Sunday at 11:55 pm on Blackboard, unless otherwise notified.
- Late Homework – 1) It's OK if your submitted time is couple of minutes late – as long as it's within 30 minutes of the deadline; 2) After the first half an hour, your grades for this homework will be deducted 20% for every late day.

### Important Dates:

- August 28 – Add/ drop period ends
- October 12 – Last day to withdraw from a course
- November 13 – Undergraduate classes end
- November 18 (2:00 pm - 5:00 pm) – Final Exam

### Course Topics and Schedule (tentative):

| <i>W</i> | <i>Date</i>   | <i>Topic</i>             | <i>HW Due</i> |
|----------|---------------|--------------------------|---------------|
| 00       | 08/20         | Introduction             |               |
| 01       | 08/25 & 08/27 | Logic                    | HW0 due       |
| 02       | 09/01 & 09/03 | Methods and Proofs       | HW1 due       |
| 03       | 09/08 & 09/10 | Set Theory & Functions   | HW2 due       |
| 04       | 09/15 & 09/17 | Sequences & Sums         | HW3 due       |
| 05       | 09/22 & 09/24 | Algorithms & Complexity  | HW4 due       |
| 06       | 09/29 & 10/01 | Midterm Review & Midterm | HW5 due       |
| 07       | 10/06 & 10/08 | Induction                |               |
| 08       | 10/13 & 10/15 | Induction                | HW6 due       |
| 09       | 10/20 & 10/22 | Recursion                | HW7 due       |
| 10       | 10/27 & 10/29 | Counting                 | HW8 due       |
| 11       | 11/03 & 11/05 | Probability              | HW9 due       |
| 12       | 11/10 & 11/12 | Graphs & Final Review    | HW10 due      |

**Grading Policy:**

Grades will be based on homework (40%), the midterm (20%) and the final (40%). Grading scale:  $\geq 93$  – A, 90 – A-, 85 – B+, 80 – B, 75 – B-, 70 – C+, 65 – C, 60 – C-, 55 – D+, 50 – D, 45 – D-,  $< 45$  – F.

**Homework assignments:**

There will be 9-10 homework assignments accounting for 40% of your final grade. Homework is due on Sunday at 11:55 pm on Blackboard.

- **Start right away:** It will benefit you to start homework as soon as possible. You may need to let some problems stew or attempt problems a few times. Don't expect to start and complete assignments the night before.
- **LaTeX your work:** You should write solutions in a readable and elegant way. To aid your writing, you are required to prepare your homework in LaTeX. LaTeX is available on every CS Department system and can be installed on personal computers. Or you can use online LaTeX edit sites such as Overleaf. I will provide your homework problems in LaTeX so you can begin to learn particular formatting, and there are many resources online you should use. Overleaf online tutorial is highly recommended. You should include each homework problem written out in full before your answer.
- **Empty hand policy + Honor Code:** You may discuss assignments with other students currently in this class, the TA, and the instructor, but all work must be in your own words. You should follow the empty hand policy with any collaboration with other students: you can discuss any part of the homework but you cannot keep any record of the discussion (paper or electronic). Any copied work will not receive credit and is an Honor Code violation.
- **Giving credit:** If you collaborate with another student, you must list them as a collaborator, either for the entire homework or on individual problems. You may consult other sources, but you must list all websites and published material beyond the textbook. Again, copied work will not receive credit and is an Honor Code violation.
- **Late homework:** 1) It's OK if your submitted time is couple of minutes late – as long as it's within 30 minutes of the deadline; 2) After the first half an hour, your grades for this homework will be deducted 20% for every late day.

**Accommodations:**

It is the policy of The College of William & Mary to accommodate students with disabilities and qualifying diagnosed conditions in accordance with federal and state laws. Any student who feels s/he may need an accommodation based on the impact of a learning, psychiatric, physical or chronic health diagnosis should be referred to Student Accessibility Services staff at 757-221-2509 or at sas@wm.edu. SAS staff will work with you to determine if accommodations are warranted, and if so, to help you obtain an official letter of accommodation. For more information please see [www.wm.edu/sas](http://www.wm.edu/sas).