CSCI 243-02 Discrete Structures, Spring 2017
Course Syllabus

Instructor: Shuyin Jiao, McGl 140, sjiao@wm.edu
Lectures: TR 9:30am-10:50am, Washington Hall 317
Office Hours: TR 3:30pm-5pm, or by appointment
Teaching Assistant: Qi Xia, qxia01@email.wm.edu, Zhen Peng, zpeng01@email.wm.edu
TA’s Office Hours: TW 3:30pm-5:30pm, Location: McGl 139
Any format is fine as long as you have access throughout the entire course.
Course Web Page: http://www.cs.wm.edu/~sjiao/cs24302/
Course Q&A Page: We will use Piazza for class discussion and questions. Piazza allows you to post questions anonymously to your colleagues (though the instructor and TA will know your identity). Different students often pose similar questions, and answering questions in a public benefits more people, including those who might not have thought to ask the question.
Prerequisites: CSCI 141 (Computational Problem Solving) or its AP equivalence.

Course Description:
We will cover the following topics:

- Logic
- Proof Methods
- Sets & Functions
- Sequences & Sums
- Algorithms & Complexity
- Induction
- Recursion
- Counting & Permutations & Combinations

Homework Assignments:
There will be 8 homework assignments. Homework will appear on the Blackboard. Each homework contains three parts. Part I is the concept check problems which help you understand the fundamental concepts better for each topic. It is never collected or graded. I will post the solutions for your reference. Part II is the reading assignment. I select some good example problems from the textbook for you to read and understand to reinforce the material we cover in class. Part III is the hand-in problems which will be graded. You will upload a PDF of your solution onto the Blackboard by the due time. The 8 graded homework will account for 40% of your final grade.

- 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 proofs and 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. I will provide your homework problems in LaTeX so you can begin to learn particular formatting, and there are many resources online you could use. Dr. Mao has a nice website (http://www.cs.wm.edu/~wm/CS243/about-latex.html) giving a brief introduction to LaTeX. If you do a quick search with the keyword “LaTeX” online, you will find several good websites that contain introductions to LaTeX. For example, http://www.latex-project.org/intro.html and http://www.maths.tcd.ie/~dwilkins/LaTeXPrimer When I’m not at school, I use Texmaker for
Windows ([http://www.howtotex.com/howto/installing-latex-on-windows](http://www.howtotex.com/howto/installing-latex-on-windows)) or TeXShop for Mac ([http://pages.uoregon.edu/koch/texshop/obtaining.html](http://pages.uoregon.edu/koch/texshop/obtaining.html)). Another option is ShareLaTeX ([https://www.sharelatex.com](https://www.sharelatex.com)), an online TeX editor. You should include each homework problem written out in full before your answer. Any hand-written homework will NOT be accepted.

- **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 other students, you must list them as collaborators, 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 assignments**: Homework is due at the beginning of class (9:30am) on the due date. A 25% penalty will be imposed on the late assignment within the hard deadline. The penalty becomes 100% after the hard deadline.

**Examinations:**

- **Quizzes**: There will be 7 10-minutes in-class quizzes (10:40am - 10:50am) on the dates listed on the “Class Schedule” page accounting for 10% of your final grade. Each quiz will contain one problem which is chosen either from the previous reading assignment in the homework or from the example problems in the previous lecture notes. Only the highest 5 quizzes will be counted for your final grade. This overage is to accommodate those students who have legitimate absences. Therefore make-up quizzes will NOT be offered. The quizzes are closed-textbook and closed-notes. No electronic devices are allowed.

- **Midterm exam**: The midterm will be during class on March 2nd in Washington Hall 317 and will include all material covered before the midterm. It is close-textbook and close-notes. No electronic devices are allowed. You are allowed to bring one A4 sized piece of paper that you can write anything on for the exam.

- **Final exam**: The final is scheduled 9am-12pm on May 8th and will include all material covered during the semester. It is close-textbook and close-notes. No electronic devices are allowed. You are allowed to bring one A4 sized piece of paper that you can write anything on for the exam.

**Grading Policy:**

Grades will be based on homework (40%), quizzes (10%), the mid-term (20%), and the final (30%). Final letter grades will be given based on the standard scale (i.e., 90 or above: A; 80-89: B; 70-79: C; 60-69: D; and below 60: F). Grades may be curved at my discretion.

**Attendance and Disability:**

I expect you to be present at every class meeting. Exceptions happen but should be rare. Missing more than two sessions during the semester is cause for concern, and may impact your grade. Contact me as soon as possible in the event of illness, emergency, or co/extra-curricular conflict.

It is the policy of The College of William and Mary to accommodate students with disabilities and qualifying diagnosed conditions in accordance with federal and state laws. Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact me privately to discuss their specific needs. Students will also need to contact Student Accessibility
Services staff at 757-221-2509 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas.

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