



>>: Di\$crete Math 2



MAT 2540: Discrete Structures and Algorithms 2 – Spring 2017

Lecture Section: D653

Room: Namm 1002

Time: M-W 4pm-5:40pm

Instructor: Dr. Caner Koca (pronounced *Jah-nérr Co-jah*)

Office: Namm 724

email: ckoca@citytech.cuny.edu

Office Hours: MW 3:30pm-4pm, 7:40pm-8:10pm

Textbook: *Discrete Mathematics and its Applications*, 7th ed., by K. Rosen.

Prerequisite: MAT 2440, CST 3503 (pre/co)

Credits: 3

Course Description: This course is a continuation of MAT 2440. We will review some of the most important topics in MAT 2440, such as Algorithms, Trees and Induction. We will broaden our knowledge by studying complexity of algorithms, recurrence relations, divide-and-conquer algorithms etc.

Tests: There will be **three** (3) in-class one-hour-exams during the semester, and **one** (1) final exam. The dates of these 4 exams are Mar 1, Mar 29, May 3 and May 24. You may **not** use any textbooks, notebooks, cheat-sheets or calculator for these exams. On the exam, there should be nothing on your desk but a pencil and an eraser. You may not use pens on tests. The final exam will be cumulative. **The problems on the test will be nearly identical or very similar to the problems on Homework, Worksheets (handouts) and the Extra Examples (which are to be posted on BlackBoard after every lecture).**

Missing Tests Policy: Attending the tests on the test dates is compulsory; otherwise, a grade of zero will be recorded. Any student who has an excused, documented conflict with a test time must sign and submit a **Request for Exam Exemption Form** (available on *Blackboard*) to the professor along with an document explaining the excuse. Under no circumstances will a test be given on an alternate date or time. If a test is missed with an excused absence (college-related or medical), the final exam percentage will be substituted for the missed test. If the absence is college-related, the student must provide an official signed letter from the College. If the absence is because of a medical emergency, the student must provide a note from his/her doctor. If a student misses two or more tests with an excused absence, the make ups will be handled on a case by case basis.

Homework: There will be weekly homework assignments. A list of homework problems and their due dates are posted on the course schedule (available on *Blackboard*). Even though these assignments are not to be collected or graded, you are expected to complete them before the due date in order to keep up with the course material.

The problems on the test will be nearly identical or very similar to the homework problems. Thus, it is essential for you to solve (and write!) the homework problems for your own benefit.

Extra Examples: After every lecture, a couple of examples/problems with full solutions) related to that lecture will be posted on *BlackBoard*. It is very crucial that you study these examples, because not only will you review the material for that class, but also you will learn how to properly write the solution of a problem. Studying these examples will be a good way to review for the test.

Piazza: This term we will be using *Piazza* for class discussion. The system is highly catered to getting you help fast and efficiently from classmates and myself. Rather than emailing questions to me, I encourage you to post your questions on *Piazza*. Find our class page at: <https://piazza.com/citytech.cuny.edu/spring2017/mat2540>.

Calculator Policy: A graphing calculator will not be required to solve any of the homework or test problems. The

use of calculators is prohibited during the tests.

Quizzes: There will be about 6 quizzes throughout the semester. The quiz dates and topics will be announced in class in advance. In every quiz, you will be asked to write the solution of one or two problems that are taken from the homework problem sets mentioned above. The lowest quiz grade will be dropped. No textbook or any other aid will be allowed during the quiz.

Projects: During the semester you will be asked to submit two projects. These programming assignments should be written in **C++** or **Java**. You should consult the professor in the beginning of the first two weeks of the semester if you would like to use another programming language. The assignment can be done in pairs. More information will be provided later.

Class Participation/Etiquette: 10% of the overall grade is dedicated to Class Participation and Classroom Etiquette. This grade will be assigned by the professor at his discretion.

Positive impact	Negative impact
<ul style="list-style-type: none">* Participate discussion in class and on Piazza* Be respectful towards classmates/professor* Do the webwork problems regularly* Classroom etiquette and common courtesy: listening to the professor quietly, paying attention to students' questions, raising hand to ask questions etc.* Regular attendance	<ul style="list-style-type: none">* Use of cell phones and other distractions* Talking to other people, even if it is about the lecture* Disrespectful behavior towards classmates/professor.* Arriving late or leaving early* Not doing the worksheets given in class.* Distractive, disruptive or annoying behavior.* Attempting to cheat on the test or on the quiz.

During the entire classtime, students are not allowed to talk to each other, even if it is about the lecture. All questions must be addressed to the professor.

Grading Policy: Your letter grade will be based on the following percentages: **3 Tests** (50%), **1 Final Exam** (20%), **Projects** (10%), **Quizzes** (10%), **Class Participation/Etiquette** (10%). The lowest test will count as 10%, and the other two tests will count 20% each.

The letter grade is assigned by the following scheme: **A-range** (90-100%), **B-range** (80-89%), **C-range** (70-79%), **D-range** (60-69%), **F** (below 60%). Plus/minus will be assigned appropriately. There may be a slight curve depending on the overall class average, but students should not take this curve for granted, and it will not have a dramatic impact.

Attendance Policy: You are expected to attend **all class meetings** and you are responsible for all the material covered. Attendance is required and will be taken. Lateness and students leaving before the end of the class period will be recorded. When these exceed the 10% margin allowed by the College (**3 absences per semester**), they will result in **grade reduction**, and in excessive cases, in a request to **withdraw** from the course. Students who have been excessively absent and failed the course at the end of the semester will receive either the WU grade if they have attended the course at least once (This includes students who stop attending without officially withdrawing from the course) or the WN grade if they have never attended the course. In credit bearing courses, the WU and WN grades count as an F in the computation of the GPA. The official Mathematics Department policy is that two latenesses (this includes arriving late or leaving early) is equivalent to one additional absence. Receiving a WU may affect your financial aid.

New York City College of Technology Policy on Academic Integrity: Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.