

SYLLABUS FOR MATH 22, DISCRETE MATHEMATICS: SPRING 2019

Math-022-27, CRN: 46117

Instructor: Dr. Wyatt Howard

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Class Hours: Mondays and Wednesdays from 4:00P.M.-6:15P.M. in S45. Office Hours: Mondays-Thursdays from 12:00P.M.-1:00P.M. in S76g.

Textbook: Discrete Mathematics: An Introduction to Mathematical Reasoning, Brief Edition, by Susanna Epp (blue cover with stacked stones on the front). We will plan on covering Chapters 1 – 10 in the textbook.

Grading:

- Homework: Homework will be assigned after almost every class and it will primarily come from the textbook (there is no online homework for this class). I will not collect all of your homework and grade each assignment. However, on exam days you need to bring all of your homework with you to class. I will collect one assignment on exam days. Before you take the exam, I will pick one of these assignments at random and you will turn it in when you are finished with your exam. I will not accept late homework. Make sure your homework is stapled, has the assignment number on the front page, and exercise numbers listed on the front page or else points will be deducted. If you turn in the wrong homework assignment, then you will receive a zero for that assignment. It is your responsibility to make sure that you are organized and turn in the correct homework assignment. The homework will be graded on a scale of 1 – 10 where 10 is a perfect score. I will be primarily grading the homework on effort and to give you feedback

- Board Quizzes: There will be 3 quizzes in this class. I do not allow make up quizzes. In the calendar below, I have included the tentative dates of the quizzes. The quizzes will be done on the board in groups of at most three people. During the first and second week of class, I will discuss the details of how these board quizzes will be conducted.

- Tests: There will be a total of 4 exams in the class: 3 midterms and 1 final. I do not give make up exams, with the possible exception of the final exam under extreme circumstances. In the event that you miss an exam, you will be permitted to replace the zero you received on one midterm exam by your next midterm (or final exam in the event you miss the third midterm) grade on a percentage equivalent basis. You can use a scientific calculator for the exams. You are not allowed to use a graphing calculator. The final exam will be cumulative.

Tentative Dates for Midterms: Midterm 1: Monday, April 29th, Midterm 2: Monday, May 20th, Midterm 3: Monday, June 10th.

Final Exam: The date of the final is exam is on Wednesday, June 26th from 4:00P.M.- 5:00P.M. The date of the final exam is set in stone and will not be changed.

- **Class Participation and Academic Etiquette:** You will be given 10 points for participation and academic etiquette for this course. These 10 points make up 3% of your overall grade. Students will lose half a point for a tardy (late by 5 or more minutes after class begins) or for leaving 5 or more minutes before class is excused. If you have a valid excuse for why you are unable to arrive on time to class or need to leave early, then you need to email me and state the reason for why you were late or left early. I will decide if your reason is considered excused or not. Cell phones, computers, and any other electronic devices are not allowed during class. If you are using one of these devices during class, then you will lose one point for each time that I see you using these devices. Disruptive behavior will not be tolerated, as well. If you are being disruptive and talking to another student during class, then you will lose a point for each incident.

- **Attendance:** You are expected to be in class every day. If you have more than 5 recorded absences, you may be dropped from the course. However, it is your responsibility to drop yourself in the event that you want to drop the class.

Class Participation and Academic Etiquette 3%

Quizzes 15%

Midterm 1 17%

Midterm 2 15%

Midterm 3 20%

Final 30%

- **Grade Breakdown:** 90 – 100% = A-, A, A+.

80 – 89% = B-, B, B+.

70 – 79% = C.

60 – 69% = D.

below 60% = F.

Course Description: Elements of discrete mathematics with applications to computer science. Topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.

Prerequisites: Math 43 or Math 43H with a grade of C or better or equivalent, and CIS 22a or CIS 35a with a grade of C or better or equivalent.

Warm-Up Exercises: Warm-up exercises will be given a few days a week. This will consist of 1 – 3 exercises that I will post on the board and have you work on either by yourself or in groups

when you enter class. After the first few minutes I will walk around the class to observe how everyone is tackling the exercises and to provide help. These problems are intended to help warm-up your mind for the lecture that day. Please take them seriously.

Blue Books: Each student is required to purchase 3 small blue books and 1 large blue book and turn them in to me during the first two weeks of class. I will talk more about this on the first day of class.

Free Tutoring: The Math Tutoring Center in Room S43 offers free tutoring on Mondays-Thursdays from 9 : 00A.M.-5 : 30P.M. I strongly encourage you to utilize this resource. More information can be found here:

<http://www.deanza.edu/studentsuccess/mstrc/>

Disability Support Services: If you need to contact the Disability Support Services, then please contact them as soon as possible. More information can be found here:

<https://www.deanza.edu/dss/>

Academic Integrity: This is pretty straightforward: Do not cheat on quizzes, exams, or directly copy other student's work. It is not worth getting caught and suffering the consequences. For more information about De Anza College's policy on academic integrity:

<https://www.deanza.edu/studenthandbook/academic-integrity.html>

Policies for This Class: These policies are part of the syllabus and will be strictly enforced. By enrolling in this course, you as the student agree to accept these policies and follow them and agree that the instructor reserves the right to drop a student from the course with a W if any of the policies are violated. Further action may also be taken against a student who violates specific policies, such as the policy on cheating.

- Cell phone use (talking on your phone, texting, etc.) during lecture is not allowed. This is considered to be rude behavior and tells me that you are not paying attention in class. If you are using your phone, then you will be warned once to stop. If it happens again, then you may be asked to leave the class and you will not be allowed back into the class until you emailed the instructor or talked to him before the next class meeting.

If you have an emergency and need to use your cell phone, then you are free to excuse yourself from class to deal with the situation.

- Talking during class is also not allowed. This is also considered to be rude behavior, and it is distracting to the professor. If you are being disruptive and talking to another student during class, then I reserve the right to move you to the front of the classroom or I may ask you to leave the class and you will not be allowed back until the class until you have emailed the instructor.

- Tests must be completed by the time class time ends. You will receive a two minute warning before your time is fully up. When time is over, you must put down your writing utensil and stop writing immediately. If you do not stop writing immediately, your test may not be collected and you may receive a grade of zero. Also, during exams everything must be off of your desk and either in your backpack (or under your seat if you do not have a backpack). If the instructor sees any phones, paper, notebooks, textbooks, etc. out during an exam, then it will be considered cheating and the student will receive a zero for that exam. If the instructor observes a student placing his or her hands beneath his or her desk for an extended period of time, the instructor may ask that student to stand up or move to another desk. If a student is observed with a cell phone in his or her hands, lap, or other easily accessible place after the student has received his or her test, that student will be considered cheating and will receive a zero on that test.

- If a student is caught cheating, the instructor reserves the right to assign a grade of F for that exam/quiz or to drop the student with a W from the course. If a student is returned a graded test or quiz and the student changes his or her incorrect answers in order to receive more points, the student is considered cheating and such an act will carry the same consequences as those mentioned above. If you are caught cheating on the final exam, you might receive a grade of F for the course.

Student Learning Outcome(s):

*Critique a mathematical statement for its truth value, defend choice by formulating a mathematical proof or constructing a counterexample.

*Analyze and apply patterns of discrete mathematical structures to demonstrate mathematical thinking.