

22.25, Summer 2023

About the Instructor

The instructor, Salvador Guerrero, may be reached by e-mail at guerrerosalvador@fhda.edu and is available for office hours by appointment, or before/after class.

My intention is for our space to be a supportive, engaging, and accepting environment in which you may comfortably explore and expand your mathematical abilities. Please do not hesitate to reach out if ever you have any questions, we will work together to help resolve them.

About the Course

The course is Math 22 Discrete Mathematics, section 25 with CRN 12423 and meets in S46 Monday – Thursday from 12:30pm – 2:45pm.

Materials

For this course you will need to be able to access the course content and meetings online, respectively on Canvas and Zoom. The textbook we will be using, Applied Discrete Structures by Al Doerr and Ken Levasseur, is available for free online and linked in Canvas. It is preferable and advised that you have a separate notebook for this course.

Requisites

This course has a prerequisite of MATH 32 or MATH 32H with a grade of C or better or equivalent, and CIS 22A or CIS 35A with a grade of C or better or equivalent.

Time Commitment

As with most college courses you should expect to dedicate about 3 hours per unit per week (regular session, summer is double) for this course; this is a 5-unit course. This includes reading, homework, discussion, live meetings, etc. It may be that you don't need all this time, but it is best to plan for it just in case.

Description

The course will cover elements of discrete mathematics with applications to computer science and topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.

Assignments

Our mathematical exploration will involve reading, discussion, and practice. It is important that you set an appropriate study schedule as we will need to all work at the same pace since we will spend a good amount of time in Q&A and groupwork during the meetings. In order to help you keep pace we will have weekly homework quizzes. You are expected to read the text before our meetings so that we may have a conversation about your learning; in particular, the Q&A portion will be guided by your questions and the groupwork sessions will depend on your having some prior exposure to the topic. After you read, I will ask that you complete some problems and discuss with one another. It is important to communicate and collaborate in this day and age, so I will ask that you complete both a pairs project. Please make sure to be available to meet in person for final exam on Thursday August 10 12:30pm – 2:45pm.

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Grading

The **Essay** and **Project** (if applicable) will be graded on an evaluative scale - No Credit, Unsatisfactory, Marginal (Needs Improvement), Satisfactory (Meets Standards), Proficient (Exceeds Standards), or Exemplary (Far Exceeds Standards). A more specific rubric will be provided with each assignment. **Quizzes** and **Exams** will be graded mostly as correct or incorrect and some feedback provided – you will have an opportunity to correct the mistakes on these assignments for additional credit. Exams and quizzes may be revised and resubmitted for additional credit. Details in Canvas. **Final Exam** will be graded with much consideration to partial credit since there is no possibility to re-work any mistakes. **Course Grades** will be determined as described in Canvas.

Policies and Resources

Tutoring/Additional Help

Please know that our college provides several resources to help in your learning objectives including tutoring at the SSC (please see <http://deanza.edu/studentuccess/>), tutoring via NetTutor (see Canvas), and of course a library (<http://www.deanza.edu/library/>).

Also keep in mind that it is 2023, well into the future now, and the internet is a powerful tool literally at our fingertips.

Attendance

I expect that you will be in class for most of our meetings so that you may benefit from our discussion and complete any in-class assignments. I hope that you will be able to arrive on time and stay until the end but if for any reason you are not able to, please make sure to check Canvas for any important information and to otherwise keep up with the course work.

If you are not able to join the first meeting but would like to remain enrolled, please make sure to contact me as soon as possible as students that miss the first meeting may be dropped. I will do my best to remind you of the important registration dates, but it is your responsibility to be familiar with them. If at any point you want to drop or withdraw, I will appreciate if you first talk to me.

Accommodation of Disability

If you have any disability, permanent or temporary, that might affect your ability to fully participate and perform your best please contact the Disability Support Services office (<http://www.deanza.edu/dsps/>) so that you may receive the support and accommodations you might find helpful.

Academic Integrity

Please be honest, both to yourself and to me, about your learning and understanding at all times. For the purposes of this class, we will define academic dishonesty to be submitting work that is 1. not your own (i.e. copied or plagiarized), or 2. using resources that are disallowed on an assignment, or 3. unfairly taking credit for work you did not do (e.g. leaving the bulk of a project to your groupmate). Academic dishonesty will result in a penalty on that assignment (1 and 3 will receive score of 0; 2 will be a score of 0 on the exercise or problem in question), might not be dropped or replaced (exams , and may be referred to student judicial affairs (only 1).

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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.

Office Hours:

M,T,W,TH 12:00 PM 12:30 PM By Appointment S55