22.51Z, 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, please do not hesitate to let me know when you need help.

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 52Z with CRN. This is an asynchronous section so there will be no regular meetings, but please do plan on setting aside the same amount of time you would for an in-person section.

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, watching videos, 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 you will be expected to participate in online discussions regularly. In order to help you keep pace we will have weekly homework quizzes. There will be two exams and a final exam. I expect that you will read the text and I will ask that you complete some practice 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 a project in pairs. There will also be a writing assignment intended to provide some motivation for a specific topic from the course.

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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/studentsuccess/), 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

This is an asynchronous course so there is no attendance but I do expect that you will participate in the course daily.

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