

**De Anza College – Winter 2023**  
**MATH 22-40 Discrete Mathematics**

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Instructor: Paul Du, PhD  
E-mail: dupaul@fhda.edu  
Class: MW 4:00–6:15 pm, Zoom  
Office Hours: TTh 12:00–12:50 pm, Zoom

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### **Prerequisite**

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.

### **Course Description**

This course explores elements of discrete mathematics with applications to computer science. Topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.

### **Textbook**

*Discrete Mathematics: An introduction to Mathematical Reasoning, Brief Edition* by Susanna Epp.  
A printed book is optional. A digital book may be rented online via an e-textbook site such as VitalSource.

### **Calculator**

A graphing calculator is optional for this course.

### **Tips for Success**

- ▶ Participate actively in class.
- ▶ Work problems every day.
- ▶ Review old material constantly.
- ▶ Form a study group.
- ▶ Utilize tutoring and online resources.

### **Homework and Quizzes**

Homework will be assigned for each lesson and will be due on each exam day. Students are responsible for solving all the problems assigned, showing all work in a neat and orderly manner. Simply giving answers without showing work will receive no credit. Homework will be graded on neatness, completeness, and correctness. Late homework will be accepted but will receive a maximum of half credit.

There will be six (6) quizzes given during the quarter. Quiz problems will be based on the homework and class examples. There will be no make-up quizzes under any circumstances. Instead, the lowest quiz score will be dropped.

## Exams

There will be two (2) midterm exams given during the quarter. There will be no make-up midterm exams under any circumstances. Instead, the lowest midterm exam score will be replaced by the final exam score, if the latter is higher.

A mandatory comprehensive final exam will be given at the end of the quarter. The final exam must be taken at the officially scheduled time.

## Grading Policy

The course grade will be determined by the following criteria:

Homework .....	10%	[99%, 100%]	=	A+	[80%, 82%)	=	B-
Quizzes .....	20%	[92%, 99%)	=	A	[77%, 80%)	=	C+
Midterm Exams .....	40%	[90%, 92%)	=	A-	[65%, 77%)	=	C
Final Exam .....	30%	[87%, 90%)	=	B+	[55%, 65%)	=	D
		[82%, 87%)	=	B	[0%, 55%)	=	F

## Attendance Policy

Students are expected to attend all classes, to be on time and to stay for the entire class period. Any student who misses more than one (1) class during the first two weeks or more than three (3) classes before the withdraw deadline may be dropped by the instructor. Each incidence of tardiness or leaving class early will count as half an absence. If a student decides not to continue with the course, it is the student's responsibility to officially drop the course. Failure to do so may result in a grade of F for the course.

## Academic Honesty Policy

Students are responsible for keeping themselves informed of the De Anza College Policy on Academic Integrity ([www.deanza.edu/policies/academic\\_integrity.html](http://www.deanza.edu/policies/academic_integrity.html)). Cheating will not be tolerated and may result in receiving a zero on the exam or an F for the course and being reported to the Dean of Students Office for possible disciplinary action.

## Student Conduct and Classroom Behavior

Students are responsible for keeping themselves informed of the De Anza College Student Code of Conduct ([www.deanza.edu/student-development/conduct.html](http://www.deanza.edu/student-development/conduct.html)). Disruptive classroom behavior is unacceptable. Examples of such behavior include, but not limited to, talking during lecture and student presentation, making distracting noises, or arriving to class late or leaving early. Persistent disruption may result in being asked to leave the class and/or being referred to the Dean of Students Office.

## Accommodations for Students with Disabilities

Students with disabilities who believe that they may need accommodations in this course are encouraged to contact Disability Support Services (408-864-8753) or Educational Diagnostic Center (408-864-8839) as soon as possible to ensure that such accommodations are arranged in a timely fashion.

**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:**

Zoom            T,TH 12:00 PM      12:50 PM