DeAnza-Math 22-23: Discrete Mathematics [CRN 01279]
Tu-Th 01:30 PM–03:45 PM, Location MCC-12
Classes meets January 06 - March 19, 2020 .

Instructor: Reza Shariatmadari, **Email**: shariatmadarireza@fhda.edu

Office Hours: Tuesday 12:00PM-01:00PM.

Office Location: Lower level of Financial Aid building (Baldwin Vinery). Dial 16 for my office access.

Textbook: Discrete Mathematics, Brief Edition by Susanna S. Epp.

Calculators: In general we don't use calculator in this class that often, but when needed, online calculator/graphing calculator (like DESMOS or GeoGebra) will suffice. If you are allowed to use a calculator during an exam or quiz, it must be a non-graphing, simple calculator. You will be notified in advance if calculator is allowed during exams.

Course Description and Prerequisites: Elements of discrete mathematics with applications to computer science. Topics include methods of proof, mathematical induction, logic, sets, relations, graphs, combinatorics, and Boolean algebra.
Prerequisite: MATH 43 with a grade of C or better, or equivalent and CIS 22A or CIS 35A with a grade of C or better, or equivalent. Advisory: EWRT 211 and READ 211 (or LART 211), or ESL 272 and 273.

By the end of this quarter, I want you to be able:
1- to match key terms to the appropriate concepts and definitions.

2- to define key terms in your own words.

3- to recognize and use concepts and procedures correctly in new situations appropriate to your discipline.

4- to break larger issues/problems into their component parts in order to facilitate problem solving and deeper understanding.

5- to combine concepts and procedures from this class in new ways to solve problems or create new ways of seeing the course content.

6- to compare and contrast data in such a way that allows you to solve problems and accomplish your goals.

Course Policy:
1- No late work will be accepted under any circumstances nor credit given for late homework and assignments.

2- No make-up exams will be given under any circumstances.

3- If you are late to class, find the closest seat to the door. DO NOT walk in front of the class in order to find a seat.

4- Do not text during class time, unless you are texting me.

5- Your cell phone should either be off or on silent mode, but not on vibration. If you receive a call during my lectures, you must answer the phone. I will ask the person on the other side to answer a complex math question. If the answer is correct, then you are excused for the interruption, if the answer is wrong, then I will deduct 3 points from an upcoming quiz or exam.

6- I will not tolerate prejudiced and/or hateful comments such as racism, homophobia, sexism, misogyny or other forms of hate-speech, or contributions that could be interpreted as such. Personal attacks, trolling, abuse and provocative, insulting, aggressive or threatening behavior will not be tolerated.

Few tips on how to succeed in my class:

Your success in my class is extremely important to me and I will do everything in my power to get you there. Here are few tips:

1- Be an active learner, don't memorize, learn the concepts.

2- When you try to solve a problem, make sure you understand what the problem is asking. Read the question multiple times and then come up with a strategy to solve the problem.

3- Don't be afraid of making mistakes, if your first strategy didn't payoff try a different strategy.
4- No matter what, don't give up.

5- Come to office hours as often as you can, as much as you can.

6- Think, think, think. Never start solving a problem without thinking.

7- Active participation in class is essential. Your progress depends entirely on your commitment both inside and outside the classroom. Plan to spend 2 to 3 hours outside of class studying for every lecture.

Midterms: There will be two midterm exams. These exams will be given either during regularly

scheduled class meetings, as a take home exam, group exam, or any combination of the three. You will be notified in advance about the format of these exams. The midterm exams are cumulative with more emphasis on the most recent materials. Any change in Midterm dates and/or location will be announced in advance.

Tentative Midterms Schedule:
Exam 1: Thursday January 30, 2020
Exam 2: Thursday March 12, 2020

Final Exam: Final Exam is scheduled on Tuesday March 24, 2020 from 1:45 PM to 3:45 PM.

Homework: Homework and recommended problems will be assigned according to our progress in class. They provide practice, help clarify ideas introduced in class or in the text, and constitute a **partial** guide as to what to expect on Quizzes and Exams. You are encouraged to work together to study and do your homework.

Quizzes: There will be one quiz during this quarter. This quiz will be given either during regularly scheduled class meetings, as a take home quiz, group quiz, or any combination of the three. You will be notified in advance about the format of these quizzes. Any change in quiz dates will be announced in advance.

Tentative Quiz Schedule:
Quiz: February 20, 2020

Attendance and class participation: I expect that you attend all my lectures. Active class participation is also required. You are expected to come to class prepared for the days discussion. Should you miss a lecture for any reason, you are responsible for all the materials covered and assignments given. I suggest that you contact your group members to find out about the material that you have missed. I will not repeat any lectures under any circumstance, neither in class nor during my office hours.

Academic Integrity: Students are reminded that their behavior at all times reflects upon the college community. The minimum penalty for cheating, plagiarism, etc. is a grade of zero on the assignment. For additional information on the college's policies, read the Ethics and the Academic Integrity Policy at http://www.deanza.edu/studenthandbook/academic-integrity.html.

Disability Services: Students with disabilities should contact Disability Support Programs Services, Building: AT209. Contact: Marilyn Booye, Phone: 408.864.8407. I am happy to meet with you to discuss necessary academic accommodations once I receive appropriate documentation from Disability Support Programs Services.

In-Class Recordings: You are not allowed to take a video recording, audio recording, or streaming audio/video of private, non-public conversations and/or meetings, inclusive of the classroom setting,

without the knowledge and consent of all recorded parties, except in cases of approved disability accommodations. Dissemination or sharing of any classroom recording without the permission of the instructor would be considered misuse and, therefore, prohibited.

Courtesy: As a courtesy to those around you, cell phones and other electronic devices should be silenced and put away during lecture unless instructed otherwise by me.

Important Dates: For important dates, see De Anza Academic Calendar ASAP.

Getting Help: Tutoring is also available at "Math, Science and Technology Resources Center (S43). Please take advantage of this service at no cost to you.

Grades: Course grades will be determined by homework, quiz, midterms, and final exams. I reserve the right to make changes to the syllabus. I also reserve the right to adjust your grade (for better of course) based on my opinion of the quality of your work and your progress throughout the quarter. I will not discuss your grades via email for security and privacy reasons so you must consult with me about your standing in class and your grade throughout the quarter. I strongly suggest that you do not leave anything for the last minute. Once again, come and see me at anytime if you have questions about your grades.

General guidelines are as follows:

Homework: 5%
Quiz: 15%
Exam 1: 25%
Exam:2: 25%
Final Exam: 30%

Your course letter grade will be assigned as follows:

A 94% to 100%
A- 90% to $<$ 94%
B+87% to $<$ 90%
B 84% to $<$ 87%
B- 80% to $<$ 84%
C+77% to $<$ 80%
C 74% to $<$ 77%
C- 70% to $<$ 74%
D+67% to $<$ 70%
D 64% to $<$ 67%
D- 60% to $<$ 64%
F 00% to $<$ 60%

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.