Math 22-63: Discrete Mathematics [CRN 01250]
TuTh 06:30 PM–08:45 PM, Location MLC109
Classes meets April 09, 2018 - June 29, 2018 .

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

Office Hours and Location: Tuesday: 2:30 PM - 3:30 PM at the lower level of Financial Aid building (Baldwin Vinery). Dial 5720 for my office access..

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

Calculators: We don't use calculator in this class, if needed online calculator/graphing calculator will suffice.

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.

Midterms: There will be two midterm exams. These exams will be given either during regularly scheduled class meetings or as a take home exam or combination of both. The midterm exams are cumulative. Any change in Midterm dates and location will be announced in advance.

Tentative Midterms Schedule:
Midterm 1: Thursday May 10, 2018
Midterm 2: Thursday June 14, 2018

Goals and Objectives: Describe how formal tools of symbolic logic are used to model real-life situations, including those arising in computing contexts such as program correctness, database queries, and algorithms; Develop logical reasoning skills for both direct and indirect arguments.Construct mathematical proofs, including proofs by induction; Relate the ideas of mathematical induction to recursion and recursively defined structures.Formulate combinatorial techniques; Basics of counting.Investigate and solve recurrence relations by employing recursive thinking and methods; Analyze a problem to create relevant recurrence equations. Examine properties of sets and mathematical relations on sets.Examine the algebraic structure of a Boolean algebra. Diagram, examine, and analyze graphs and trees; Demonstrate different traversal methods for trees and graphs.

Final Exam: The Final Examination will be on Thursday, June 28, 2018, 06:15 PM-08:15 PM. Final Exam is a comprehensive examination covering the entire quarter. The date of the final exam is set in stone and will not be changed. The location of the Final Exam will be announced during the last week of class.

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.
You are encouraged to work together to study and do your homework. Taken in the right spirit, this can be very productive. However, assignments that you turn in under your name must be your own; group papers will not be accepted. Homework are due every Thursday at the beginning of the class.

Quizzes: More accurately they are Pop Quizzes so there will be no announcement about the timing of these quizzes, which explains the pop part of the name. But for this quarter, as an experiment, I have decided to announce the quiz in advance (Someone has told me that students tend to do better when the quiz is announced in advance so they can better prepare). There will be a quiz every Tuesday during the class period.

Extra Credit: There will be opportunities for extra credit and they will be announced during class. You can earn as many extra credit points as I offer throughout the quarter.

Attendance and class participation: You are expected to attend lectures every day. Active class participation is 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 material that was covered and assignments that were given.

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 .

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

Grades: Course grades will be determined by homework, group assignment, quiz and exam. I reserve the right to make any changes to the syllabus and 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 post any grades online or via email so you must consult with me about your standing in class your grade throughout the quarter. I STRONGLY SUGGEST THAT YOU DO NOT LEAVE ANYTHING FOR THE LAST MINUTE.

General guidelines are as follows:

Homework: 5%

Quiz: 5%

Exam 1: 20%

Exam 2: 35%

Final Exam: 35%

Your course letter grade will be assigned as follows:

(A+: 97%-100%)

(A: 93%-96.9%)

(A-: 90%-92.9%)

(B+: 87%-89.9%)

(B: 83%-86.9%)

(B-: 80%-82.9%)

(C+: 77%-79.9%)

(C: 73%-76.9%)

(C-: 70%-72.9%)

(D+: 67%-69.9%)

(D: 63%-66.9%)

(D-: 60%-62.9%)

(F: 00%-59.9%)

Getting Help: In addition to coming to office hours, please feel free to email me any questions you have on the homework (or any other questions you might have) and I will respond promptly. Tutoring is also available at "Math, Science & Technology Resources Center (S43). Please take advantage of this service at no cost to you.

Important Dates: For more detail go to: https://www.deanza.edu/calendar/springdates.html Saturday-Monday, May 26-28 : Memorial Day Weekend (no classes)

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.