

Math22 Discrete Mathematics

Fall 2024, Section 25Z, CRN 27565

INSTRUCTOR INFORMATION

Instructor	MISAKO VAN DER POEL
Email	van_der_poelmisako@fhda.edu Please following the format of the subject line stated below. "Math 22-25Z: _____" You write your inquiry after the colon.
Class Hour	Tuesday & Thursday: 6:30pm–8:45pm Zoom Link: https://fhda-edu.zoom.us/j/84545311086 Passcode: 689157
Office Hours	Tuesday & Thursday: 5:30pm–6:20pm Zoom Link: https://fhda-edu.zoom.us/j/97937658869 Passcode: 640477





CLASS MODE

This class is **synchronous**.

You are expected to attend class via zoom and check our Canvas page to see announcements and week module regularly.

The due date of all the assignment follows the **U.S. Pacific Standard Time (PST)**.

For this course, **all you need to do is:**

1. **Attending** all classes via zoom, joining on time, and staying for the entire class. 
2. Reading **Study Sheets posted in Canvas:** 
4. Completing **Homework assignments** in MyOpenMath.
5. Taking **Quizzes** in MyOpenMath. 
6. Taking **Midterms** and **Final Exam** by being **proctored** by the instructor via Zoom. 

Assignments that you need to:

1. Upload your signed **student contract** in Canvas "**Assignments**" by **Oct 6**.
2. Complete **homework assignments** and take **quizzes** in MyOpenMath.
3. Take **midterm exams** and **final exam** in Zoom.
4. Upload your completed **score sheet** in Canvas "**Assignments**" by **Dec 8**.

PREREQUISITES

- 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.
- Advisory: ESL 272 and ESL 273, or ESL 472 and ESL 473, or eligibility for EWRT 1A or EWRT 1AH or ESL 5.

MATERIALS (Cost free materials)

- Discrete Mathematics, Brief Edition, by Susanna S. Epp (Primary textbook)
- Discrete Mathematics – An Open Introduction by Oscar Levin 3rd Ed.
- Use of **MyOpenMath** is required to complete homework and quizzes.

OTHER REQUIRED MATERIAL

- **Two electronics devices (Laptop, desktop, tablet, smartphone, webcam, etc..)** are needed for taking Midterm and Final Exams.

De Anza College CompTechS: lets students borrow a refurbished desktop or laptop for coursework, https://www.deanza.edu/oti/computer_scholar.html

CALCULATORS

You are allowed to use

- a scientific calculator
- TI-83, TI-83 plus, TI-84, or TI-84 plus
- online calculator via website as DESMOS (<https://www.desmos.com>)
- GeoGebra (<https://www.geogebra.org>).

CANVAS

You are expected to check our Canvas page frequently to see

- **Modules:** A new module will be created every week, and all the lectures and the assignments will be listed in each module.
- **Files:** Formula Sheets or any documents will be posted on the Files tab.
- **Announcements:** Emergencies, date change, change of plans, and etc.

READING or WATCHING VIDEOS

In general, you should do the assigned reading section or watching video before the topics come up in class or in the homework. Throughout the quarter, I'll always assume that you've done all of the reading section or watching video.

ALL ASSIGNMENTS (Homework, Quiz, and Exam)

Late Submission = Zero Credit

Regardless of why you missed it;

- **Late submissions are not acceptable**, and there is **no exception**.
- **Do not ask for any extensions.**
- Submission of each homework and quiz assignment is due at **11:59pm** on each due date.

NO Extra Credit Assignment

There are no extra credit assignments in this course to improve your grade. Please do not ask for any.

You are expected to check the due dates on your MyOpenMath account at least once a day to plan accordingly.

HOMWORK

- Homework will be assigned in [MyOpenMath](#) weekly.
- **you will have at most 3 versions of each problem and 3 attempts are allowed for each problem . (This means that you will have at most 9 attempts on each homework problem.)**
- **Three homework assignments with lowest percentages will be dropped.**
- Submissions are due at **11:59pm** on each due date.

To create an account in MyOpenMath follow these steps:

- Click here: <https://www.myopenmath.com/>
- Click "Register as a new student"
- Course Name: Math22-25Z
- Use Course ID: **229560**
- Use Enrollment Key: **da2225**

QUIZZES

Quizzes will be assigned in MyOpenMath.

For each quiz:

- It is a timed quiz of **60 minutes**.
- **One submission** is allowed for each question.
- Use any materials including textbook and notes.
- **Three lowest scores will be dropped** at the end of the course.
- Each quiz is worth **8 points**.

EXAMS

- There will be **two** exams (**90 min**-exams).
- Each exam is worth **120 points**.
- **One submission** is allowed for each question.
- Some exam includes handwritten portion which will be upload into Canvas.
- All the exams are **closed-book**.
- You may use **one 8.5 X 11 inch sheet of handwritten notes (one side)**.
- **No Calculator** is allowed.
- **No phones**, and **other aids** are allowed.
- **Two electronics devices are required**.(Laptop, desktop, tablet, smartphone, webcam, etc..)
- **Your exam will be proctored via Zoom**.
- There are **no dropped exams**.
- If the percentage of the lowest of your exam scores is lower than that of your final exam, then the percentage of the lowest exam will be replaced by that of your final exam.
(Note that the final exam score will NOT be replaced in this manner).
- More details on exam dates and procedures can be found in Canvas. You may not submit your assignments once the deadline has passed.

Missed Exam: There are **no make-up exams**, regardless of why you missed it. If you are unable to take the exam at the scheduled time due to illness or an emergency, then your percentage from the final exam will be used to compute your score for the missed exam. If a second exam is missed, you will get a zero.

FINAL EXAMS

- There will be a mandatory comprehensive final exam worth **200 points** in MyOpenMath.
- Final exam must be taken on **Dec 12, Thursday at 6:15pm-8:15pm**.
- The final will cover all the material discussed during the quarter.
- Missing the final will result in a grade of “F” for the course.
- It is **closed book**.
- You may use **one 8.5 X 11 inch sheet of handwritten notes (both sides)**.
- **No Calculator** is allowed.
- **No phones**, and **other aids** are allowed.
- **Two electronics devices are required**.(Laptop, desktop, tablet, smartphone, webcam, etc..)
- **Your final exam will be proctored via Zoom**.
- There are **no make-up final exams**, regardless of why you missed it.

ATTENDANCE / PARTICIPATION

- You are expected to attend all classes, arrive on time, and stay for the entire class.
- Your participation will be checked in **Canvas** on each day.
- Each attendance is worth **1 point** as a participation.

STUDENT CONTRACT

- Please read “Student Contract” carefully and write your signature (do NOT type your name) and date. And then upload it into “Assignments” in Canvas by **Oct 6**.

SCORE SHEET

- You will record all scores in the score sheet which will be uploaded into “Assignments” in Canvas by **Dec 8**.

GRADES

Your grade will be based upon the total points earned, according to the following:

Participation/ Attendance	20 pts
Homework-MyOpenMath	100 pts
Quiz-MyOpenMath (8 pts each)	40 pts
Midterms- (120 pts each)	240 pts
Final Exam (200 pts)	200 pts
Total	600 pts

Points		Percentage
558 – 600	A	93%-100%
540 – 557	A-	90%-92.9%
510 – 539	B+	85%-89.9%
480 – 509	B	80%-84.9%
450 – 479	B-	75%-79.9%
432 – 419	C+	72%-74.9%
408 – 431	C	68%-71.9%
390 – 407	C-	65%-67.9%
372 – 389	D+	62%-64.9%
348 – 371	D	58%-61.9%
330 – 347	D-	55%-57.9%
Below 330	F	Below 55%

TIME COMMITMENT

The De Anza College catalog advises students to do at least two hours studying outside of class for each credit hour. That means you should be spending at least four and one half hours on each homework assignment (reviewing the notes, reading the textbook, doing the homework problems, watching videos related to the course material, etc.).

TUTORIAL HELP

- **SSC tutoring links and schedules:** go to the [SSC homepage](#) and click on the yellow link to add yourself to [SSC Resources Canvas](#). Once there, click on Modules then the SSC area for your course. <https://www.deanza.edu/studentsuccess/>
- **Support for online learning:** If you'd like to speak with someone about motivation and organization strategies for online classes, we encourage you to talk with a peer tutor or SSC staff member. We get it and are going through the same things, so let's support each other!
- **Need after-hours or weekend tutoring?** See the [Online Tutoring](#) page for information about NetTutor (via Canvas) or Smarthinking (via MyPortal).

STUDENT RESPONSIBILITIES

1. It is your responsibility to keep up with the material even if you miss class.

Note: I will not answer any Math questions over email.

2. Students are responsible for any material covered and any announcements made in their Absence. It is your responsibility to find and use all materials posted in CANVAS.
3. You are expected to attend all classes via zoom. If you miss class, please send me an email explaining the reason.
4. It is your responsibility to submit all assignments on time.

Note: There are no make-ups and no extensions will be granted.

5. If you plan on dropping the class, it is your responsibility to use "MyPortal" online, or contact Admissions and Records office.
6. It is your responsibility to record all the scores you have earned, using a "Score Sheet."
7. Please type "**Math22-25Z**" in the subject line when you contact me by email.

Your email will not be read without the course and section number in the subject line.

ACADEMIC MISCONDUCT

Academic dishonesty will not be tolerated. If a student is found cheating on an exam, plagiarizing on writing assignments, or violating other codes of academic integrity, he or she will receive a failing grade for the course and may be reported to the college for an appropriate action. See section on Academic integrity in your current schedule of classes catalog.

Please refer to https://www.deanza.edu/policies/academic_integrity.html

DISABILITY SUPPORT SERVICES

For information or questions about eligibility, support services or accommodations to disability (physical or learning disability) see contacts below:

Disability Support Service (DSS): Student Services Building (408) 864-8753; TTY (408) 864-8748

Educational Diagnostic Center (EDC): Learning Center West 110; (408) 864-8839

Special Education Division: 864-8407; www.deanza.edu/specialed

The application process can be found here: <https://www.deanza.edu/dsps/dss/applynow.html>

IMPORTANT DAYS TO REMEMBER

Oct 6, Saturday,	Last day to add quarter-length classes
Oct 6, Sunday,	Last day to drop for a full refund or credit.
Nov 15, Friday	Last day to drop with a "W"

Fall 2024	Math 22-25Z Tentative Course Schedule
<p>Week 1 Sep 24 & 26</p>	<p>Introduction Section 1.1: Variables Section 1.2: The Language of Sets Section 1.3: The Language of Relations and Functions Section 2.1: Logical Forma and Logical Equivalence Section 2.2: Conditional Statements Section 2.3: Valid and Invalid Arguments</p>
<p>Week 2 Oct 1 & 3</p>	<p>Section 3.1: Predicates and Quantified Statements I Section 3.2: Predicates and Quantified Statements II Section 3.3: Statements with Multiple Quantifiers Section 3.4: Arguments with Quantified Statements</p>
<p>Week 3 Oct 8 & 10</p>	<p>Section 4.1: Direct Proof and Counterexample I: Introduction Section 4.2: Direct Proof and Counterexample II: Rational Numbers Section 4.3: Direct Proof and Counterexample III: Divisibility Section 4.4: Direct Proof and Counterexample IV: Division into Cases and the Quotient-Reminder Theorem Section 4.5: Indirect Argument: Contradiction and Contraposition</p>
<p>Week 4 Oct 15 & 17</p>	<p>Section 4.6: Indirect Argument: Two Classical Theorems Section 5.1: Sequences Exam 1 (Ch 1, 2, 3 & 4) on Oct 17 (6:30pm-8:00pm)</p>
<p>Week 5 Oct 22 & 24</p>	<p>Section 5.2: Mathematical Induction I Section 5.3: Mathematical Induction II Section 5.4: Strong Mathematical Induction and the Well-Ordering Principle for the integers Section 5.5: Defining Sequences Recursively Section 5.6: Solving Recursive Relations by Iteration</p>
<p>Week 6 Oct 29 & 31</p>	<p>Section 6.1: Set Theory: Definitions and the Element Method of Proof Section 6.2: Properties of Sets Section 6.3: Disproofs and Algebraic Proofs Section 6.4: Boolean Algebras and Russell's Paradox Section 7.1: Functions Defined on General Sets</p>
<p>Week 7 Nov 5 & 7</p>	<p>Section 7.2: One-to-One and Onto, Inverse Functions Section 7.3: Composition of Functions Section 7.4: Cardinality and Sizes of Infinity Section 8.1: Relations on Sets Section 8.2: Reflexivity, Symmetry, and Transitivity</p>
<p>Week 8 Nov 12 & 14</p>	<p>Section 8.3: Equivalence Relations Section 8.5: The Euclidean Algorithm and Applications Exam 2 (Ch 5, 6, 7, & 8) on Nov 14 (6:30pm-8:00pm)</p>
<p>Week 9 Nov 19 & 21</p>	<p>Section 9.1: Introduction Section 9.2: Possibility Trees and the Multiplication Rule Section 9.3: Counting Elements of Disjoint Sets: The Addition Rule Section 9.4: The Pigeonhole Principle Section 9.5: Counting Subsets of a Set: Combinations Section 9.6: Pascal's Formula and Binomial Theorem</p>
<p>Week 10 Nov 26 & 28</p>	<p>Section 10.1: Graphs: Definitions and Basic Properties Section 10.2: Trails, Paths, and the Circuits No Class on Nov 28</p>
<p>Week 11 Dec 3 & 5</p>	<p>Section 10.3: Trees Section 10.4: Rooted Trees Last day of class on Dec 5</p>
<p>Week 12</p>	<p>Final Exam on December 12 at 6:15pm – 8:15pm</p>

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:

T,TH 05:30 PM 06:20 PM Zoom