

Fall 2025
MATH D044.05 CRN: 27593
Mathematics in Art, Culture, and Society: A Liberal Arts Math Class
Mon, Wen 8:30 — 10:45 G6

Instructor: Dr. Nadiia Turbai

Email: turbainadiia@fhda.edu

Office Hours: M, W 8:00 — 8:30 (G6) or email me for appointment

Textbook & Required Materials:

- Textbook for this class is available for free online:
<https://www.opentextbookstore.com/mathinsociety/>
- Computer/smartphone to use Canvas and submit Homework.
- You should keep a workbook/notebook where you take notes and work on the problems for reference.

Class Website / Canvas

All class content, assignments and announcements will be on Canvas, which you can access through MyPortal. The course will be divided into weekly modules in Canvas.

Course Description:

This course is a survey of selected topics from contemporary mathematics, including problem-solving techniques and connections between mathematics and culture. It includes a selection of introductory topics from symmetry; graph theory; chaos and fractals; number theory; geometry; combinatorics and counting; the mathematics of social choice; data analysis, probability, and statistics; consumer mathematics and personal financial management.

Student Learning Outcomes:

- Analyze contemporary mathematical problems, apply problem solving techniques using a variety of methods, and communicate the results mathematically through a variety of forms.
- Demonstrate and correctly apply basic mathematical techniques in at least five of the following ten areas: symmetry, graph theory, fractals and chaos theory, number theory, geometry, combinatorics, methods of social choice, probability and statistics, economics and personal finance.
- Examine and evaluate myths and realities about the contemporary discipline of mathematics and its practitioners.

Communication:

I expect you to check your email and log into Canvas every day. I will send occasional reminders or make announcements this way, and I don't want you to miss them. Feel free to contact me via **email** or via **Canvas message** outside of class with any issues related to the class. You do not have to wait until the next class meeting. You can expect a response within 24 hours on weekdays and within 48 hours on the weekend. If you don't get a reply to your email, try Canvas message, and the vice versa.

Attendance Policy:

Attendance is integral to your success on this course. I expect you to maintain regular and prompt attendance and participate in all class activities unless absent because of a genuine emergency, illness or college-related activity.

Drop Policy:

It is **your responsibility** to drop the class if you are unable to continue for any reason. Please be aware:

- If you do **not attend class, do not submit assignments** during the **first two weeks**, and **do not communicate** with me, I will assume you are no longer interested in the course and may drop you.
- If you **miss two consecutive weeks** of class at any point during the quarter **without notifying me**, you may be dropped from the course.

If you're facing challenges that may affect your ability to attend or complete work, please reach out to me as soon as possible. I'm here to support you!

Grading Policy:

Course grades will be determined by homework, quizzes/group activities, Project, Midterms and Final exam. You can also earn *extra points* for participating in class activities.

1	Homework (drop 1)	40 pts
2	Quizzes/group activities	40 pts
3	Project	20 pts
4	Midterms	60 pts
5	Final exam	40 pts
	Total	200pts

Grade	Percentage	Grade	Percentage
A+	100% +	C+	75%-79.9%
A	93%-99.9%	C	70%-74.9%
A-	90%-92.9%	D+	66%-69.9%
B+	87%-89.9%	D	63%-65.9%
B	83%-86.9%	D-	60%-62.9%
B-	80%-82.9%	F	Below 60%

Important Dates and Deadlines: <https://www.deanza.edu/calendar/dates-and-deadlines.html>

Assignments

Homework (20% of your course grade):

Homework is a vital part of any math class. You **cannot expect to succeed** without putting in **consistent effort** on homework assignments.

Assignments will be based on the material covered in class and are designed to:

- Provide essential practice,
- Clarify concepts introduced in class or the textbook,
- Serve as a guide for what to expect on quizzes and midterms.

Submission Guidelines:

- Homework must be **completed on paper** and then **submitted through Canvas**.
- Be sure to **show all work** and **explain your reasoning** clearly.
- Homework is due the **Monday following the week it was assigned** (unless otherwise noted in Canvas).

Grading and Deadlines:

- There will be **at least 9 homework assignments** during the quarter.
- Your **lowest homework score will be dropped**.
- All assignments will be listed and submitted through **Canvas**, with **due dates clearly indicated**.
- Homework must be submitted **by the deadline**.
 - **Late submissions** are allowed but will incur a **10% deduction per day** after the due date.

If you have any questions or concerns about an assignment or deadline, please reach out in advance—I'm here to help.

Quizzes/Group activities (20% of your course grade):

There will be **four quizzes (or group activities)** given **in person** during class on scheduled quiz days. These are **proctored assessments**, and the problems will be like those seen in homework assignments and lecture examples.

- **Quiz dates** are scheduled in advance but may be **adjusted as the quarter progresses**. Please stay updated through **Canvas** for any changes.

Important Notes:

- If you are **absent on a quiz day**, you will receive a **zero** for that quiz.
- If your absence is due to a **documented illness or emergency**, you may be allowed **one make-up quiz** during the quarter.

Please communicate with me **as soon as possible** if you have an emergency that prevents you from attending a quiz.

Project (10% of your course grade):

A **project will be assigned during the term**. This project will take the form of a **presentation**, in which you will **examine and evaluate myths and realities** surrounding the **contemporary field of mathematics** and the people who practice it.

You will receive **advance notice** about the project's **format, requirements, and deadline**.

This is an opportunity to explore the broader impact of mathematics beyond the classroom and to challenge common misconceptions about the discipline and its practitioners.

Midterm Exams (30% of your course grade):

There will be **two midterm exams** and a **cumulative final exam**. Please refer to the course calendar below for the specific dates.

- **Midterms** will each cover only the material introduced since the previous exam.
- The **final exam** will be **comprehensive**, covering material from the entire course.

Important Notes:

- **No make-up exams** will be given under any circumstances.
- If you miss a midterm or receive a low score, your **lowest midterm grade** will be **replaced** by the **final exam score (proportional adjustment)**—only if your final exam score is higher.
- This replacement policy **also applies if you miss one midterm exam**.

⚠ **Note:** If your lowest midterm score is due to **cheating or cell phone misuse during the exam**, that score **will not** be replaced by the final exam. Instead, the **next lowest** midterm score (if applicable) will be considered.

Please prepare accordingly and reach out with any questions well in advance of exam dates.

Final Exams (20% of your course grade):

- The **Final Exam is mandatory** for all students.
- If you **miss the final exam without prior communication** with me, you will receive a score of **0**.
- In the event of an **unforeseen emergency or illness** preventing you from taking the exam, notify me **immediately**.
 - If you cannot take the final exam during finals week, you may be eligible for an **Incomplete (“I”) grade**, provided you submit sufficient documentation.
- The Final Exam is **cumulative**, covering all material from the entire course.
- It will be **timed, handwritten**, and administered **in class** during our scheduled exam period.
- The exam duration is **2 hours** and will take place in our **designated classroom**.

Please plan accordingly and reach out as soon as possible if you anticipate any issues.

Tentative Exam Schedule:

Midterm 1: October 13

Midterm 2: November 10

FINAL exam: Wednesday December 10, from 7:00AM to 9:00AM.

Academic Integrity:

All students are expected to exercise high levels of academic integrity throughout the quarter. You are encouraged to work together but you are expected to write up your answers independently. Any instances of cheating or plagiarism will result in disciplinary action, including getting a '0' on the assignment and reporting to the PSME dean, which may lead to dismissal from the class or the college.

Student Honesty Policy: Students are expected to exercise academic honesty and integrity. Violations like cheating and plagiarism will result in disciplinary action, including recommendation for dismissal.

Disabled Services:

Students who have been found to be eligible for accommodation by Disability Support Services (DSS), please follow up to ensure that your accommodation has been authorized for the current quarter. If you are not registered with DSS and need accommodations, please go to <http://www.deanza.edu/dss>.

Recipe for Success:

- **Stay on schedule:** Be disciplined about keeping up with the class. *Don't allow yourself to fall behind!* Keep your notes organized and up to date and address any confusion as it arises. Writing things down helps with memory and retention. The quarter moves quickly and catching up later is very difficult.
- **Come Prepared and Ready to Contribute:** Arrive at class with all necessary materials and a mindset ready for active participation. Your engagement makes a difference.
- **Participation is Essential:** Your progress depends entirely on your commitment both inside and outside the classroom. Participate in discussions and complete every homework assignment.
- **Do not Be Afraid to Make Mistakes:** Struggling with a problem is part of the learning process. You may not solve everything on the first try—and that's okay. Keep trying. What matters most is that you never give up.
- **Ask Questions:** Never hesitate to ask questions—whether in class, during discussions, in office hours, or via email. I'm here to support you.
- **Get Help When Needed:** Take advantage of available resources. The Math, Science, and Technology Learning Center offers excellent support.

Access resources here: [Student Success Services](#)

Schedule individual tutoring sessions here: [Weekly Tutoring](#)

- **Attend Office Hours:** I encourage you to come to office hours—no question is too small or unimportant. I'm available during scheduled office hours, by appointment via Zoom, and anytime via email. Your success is extremely important to me, and I'll do everything I can to support your goals. *Don't wait until the last minute—ask questions early and often!*
- **Practice Personal Discipline:** Doing well in college takes self-discipline, especially when you're just getting started. It's easy to put things off, skip assignments, or get distracted by social media and other apps. But this quarter, try building a new life skill: *pay attention to where your focus goes.*

Think about what matters most to you right now, and make sure you're giving those things your time and energy. Don't avoid something just because it feels hard or boring. Learning takes effort—but sticking with it is how you grow and succeed. You've got this!

This syllabus is subject to change at the instructor's discretion. You will be notified in advance.

Fall 2025 Math 44-05 Tentative Course Schedule

Week	Date	Monday	Date	Wednesday
1	September 22	Problem Solving	September 24	Problem Solving
2	September 29	<i>Quiz 1</i> Voting Theory	October 1	Weighted Voting
3	October 6	Apportionment	October 8	Fair Division
4	October 13	Midterm 1	October 15	Graph Theory
5	October 20	<i>Quiz 2</i> Scheduling	October 22	Growth Models
6	October 27	Finance	October 29	Finance
7	November 3	<i>Quiz 3</i> Statistics	November 5	Describing Data
8	November 10	Midterm 2	November 12	Probability
9	November 17	Probability	November 19	<i>Quiz 4</i> Sets
10	November 24	Fractals	November 26	Project Presentation
11	December 1	Project Presentation	December 3	Review for Final Last day of Class
12			December 10	Final Exam 7:00AM – 9:00AM

Student Learning Outcome(s):

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- Demonstrate and correctly apply basic mathematical techniques in at least five of the following ten areas: symmetry, graph theory, fractals and chaos theory, topology, number theory, geometry, combinatorics, methods of social choice, probability and statistics, economics and personal finance.
- Examine and evaluate myths and realities about the contemporary discipline of mathematics and its practitioners.

Office Hours:

M,W 3:45 PM - 4:15 PM

E31

M,W 8:00 AM - 8:30 AM

G6