



MATH 105 - PATTERNS OF PHENOMENA

Fall 2023 Syllabus

Instructor: Matthew Williams (Matthew.Williams@colostate.edu)

Class time and place: Monday/Wednesday/Friday 11:00 am–11:50 am, Engineering B105

Office hours: Tuesday/Thursday 12:00 pm–12:50 pm, Weber 130

Important dates (term is August 21–December 12):

September 4 (Monday): Holiday - University Offices Closed - No Classes

September 6 (Wednesday): Last day to add or drop the course

November 10 (Friday): Last day to withdraw from the course, earning a W on your transcript

November 18–26: Fall Recess - No Classes

December 12 (Tuesday): Final, 7:30 am–9:30 am, Engineering B105

Course paradigm: Mathematics is a rich and deep subject with something for everyone. Everyone experiences mathematics uniquely. My goal for this course is that you may discover beauty and utility in mathematics. If at anytime you feel you need more resources, please, please, reach out to me and we can devise a plan for your success.

Course description: Applications of mathematical ideas and modes of thought in the arts and humanities, focusing on classification, recognition.

Course website: We will use <https://canvas.colostate.edu/> for all course materials and grades. This is a great place to stay organized and know what is due and when.

Prerequisites: None. All topics will be introduced from scratch.

Textbook: None. However, I may post articles and other things to read on Canvas.

Materials: There may be times when we need a calculator, but you are welcome to use your phone or computer.

Communication: Email is the best way to reach me, and I aim to respond within 1 business day. My email is listed at the top of the syllabus.

I will communicate important messages via announcements on Canvas. You should make sure that your settings on Canvas are set so that you receive push notifications or emails whenever I post an announcement. If you don't know how to do that, follow the directions here:

<https://community.canvaslms.com/t5/Student-Guide/How-do-I-manage-my-Canvas-notification-settings/ta-p/434>

Office hours: If you want to talk about anything regarding the course, please come to office hours. Learning to ask for help is vital to doing well in both college and life, and you should start practicing it now if you're not already comfortable asking questions. I'll never judge you for not knowing something, so please do not hesitate to stop by :)

Grades: Your grade in the class will be calculated based on the following weights:

- Homework (40%)
- In-class assignments (15%)
- Presentations (30%)
- Final project (15%)

Letter grades will be assigned according to a scale no stricter than the following:

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| A+ | 97–100 |
| A | 93–96.99 |
| A- | 90–92.99 |
| B+ | 87–89.99 |
| B | 83–86.99 |
| B- | 80–82.99 |
| C+ | 77–79.99 |
| C | 70–76.99 |
| D | 60–69.99 |
| F | 0–59.99 |

The GPA associated to each grade is standard according to [CSU's grading scale](#).

Homework: The goal of the homework is to give you the chance to either explore something new or practice something taught in class. There will be an assignment roughly every week or two. I will post the assignments on Canvas at least 1 week in advance of the due date, and you will turn them in physically at the start of class on the day they are due.

In-class assignments: There will often be ideas I want you to think about and work on during class, and these will be the “in-class assignments”. To get credit, you have to be in class that day and turn in the assignment with your name on it at the end of class. If you will miss class due to a medical issue or university-approved reason, please email me, and you will be excused from the assignment.

Presentations: Instead of exams, you will have the chance to research a topic and present it to the class in groups of 2 or 3. Topics and instructions will be posted at least 2 weeks in advance of the due dates.

Final project: Your last assignment will be an independent project on anything related to math that goes beyond what we discussed in class. This could be a video, presentation, art piece, or craft, and I'm open to discussing other ideas with you. Specific instructions will be posted at least 4 weeks in advance of the due date, but be thinking about ideas from class that you find interesting and want to explore further.

Deadlines: Due dates are there to give you the structure to help you keep up with the material throughout the term. In general, late work is not accepted. If you have circumstances that will make it difficult to meet a deadline, please email me in advance. The outcome is typically better if you communicate an issue *before* something is due.

Accommodation for disabilities: If you are a student who will need accommodations in this class due to a disability or health condition, I will need an accommodation letter from the Student Disability Center (SDC) before they are implemented. Please contact the SDC at <https://disabilitycenter.colostate.edu> as soon as possible to initiate the accommodation process.

Classroom behavior and respect for diversity: Students and faculty each have responsibility for maintaining an appropriate learning environment. I will treat everyone in the class with respect, and I expect that same consideration in return. That doesn't mean that you have to agree with everything I do, but if you feel the need to openly disagree about something, find a professional way to do it.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or pronoun. Please advise me of this early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the student code at <https://catalog.colostate.edu/general-catalog/policies/students-responsibilities/> and <https://resolution.colostate.edu/student-conduct-code/>.

Religious holidays and observances: CSU has a legal obligation to accommodate students' absences due to religious observances. For such an accommodation, it is the student's responsibility to complete the [Religious Accommodation Request Form](#) at the beginning of each semester and submit the request via the Office of the Vice President for Student Affairs website. The Dean of Students will communicate with the instructor regarding the student's absence and the student is instructed to discuss how best to ensure an accommodation related to class conflicts. For religious observances that cannot reasonably be anticipated at the beginning of the semester, students must follow the procedure above as soon as possible after the course conflict is identified. If a student knows that a particular course or section of the course will have multiple conflicts with his or her religious obligations, the student is advised to locate another course section or defer taking the course to a different semester. In the event of a conflict in regard to this policy, individuals may appeal using established CSU procedures. Instructors are advised to provide reasonable accommodations to ensure compliance with CSU's obligations. See more details regarding academic policies at <https://catalog.colostate.edu/general-catalog/academic-standards/academic-policies>.

Discrimination and harassment: CSU is committed to providing an environment that respects the dignity and worth of every member of its community. CSU strives to create and maintain a work and study environment that is fair, inclusive, and responsible so that each member of the CSU community is treated with dignity and respect and is rewarded for relevant considerations such as ability and performance. CSU has adopted a comprehensive policy to define the types of conduct that are prohibited and to prevent harm arising from discrimination, harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and retaliation. Conduct that is discriminatory or harmful under the policy inhibits the achievement of the stated goals. All students, faculty, staff, and other persons having business with CSU are expected to know and follow this policy. Details regarding what is involved in bringing a complaint and the procedures for informal and formal resolution are available from the Office of Support and Safety Assessment for student-to-student behavior and the Office of Equal Opportunity for matters involving non-students such as faculty, staff, affiliates, or visitors and matters involving a student and non-student person. See more details at <https://catalog.colostate.edu/general-catalog/policies/discrimination-harassment/>.

Academic integrity: This course will adhere to the [CSU Academic Integrity Policy](#) as found in the [Colorado State University General Catalog](#) and the [Student Conduct Code](#). At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services. See more details at <https://catalog.colostate.edu/general-catalog/policies/students-responsibilities/#academic-integrity> and <https://tilt.colostate.edu/Integrity/Pledge>.