

# Math 402 Syllabus - Section F13, Spring 2022

**Instructor:** Dr. Karen Mortensen, [kmortens@illinois.edu](mailto:kmortens@illinois.edu), 217-244-4128

**Website:** <https://learn.illinois.edu/course/view.php?id=64557>

**Class Meetings:** MWF 2:00-2:50, 141 Altgeld

**Course Overview:** Students will learn about geometry on each of the three 2-dimensional spaces with constant curvature: the Euclidean plane, the sphere, and the hyperbolic plane. There will be an emphasis on developing intuition and on rigorous proof. We will use physical representations of the plane, the sphere, and the hyperbolic plane as well as axiomatic systems and mathematical models. Much of the class time will be spent on collaborative work.

**Required Text:** *Experiencing Geometry, Euclidean and Non-Euclidean with History*, by David Henderson and Dana Taimina. Available open-source from Project Euclid: <https://projecteuclid.org/eBooks/books-by-independent-authors/Experiencing-Geometry/toc/10.3792/euclid/9781429799850>

**Course Format:** To prepare for each class period, students will do assigned reading and/or watch short content videos and submit preliminary work on assigned problems. Class time will be spent primarily working in groups on the assigned problems. Participation in class is required and will contribute to your course grade – if it is not your learning style to attend class regularly, then this will not be a good class for you! During class, groups will also report on their discussions. Final drafts of problems will be due at the end of each week. There will be three written exams during the semester and a final exam.

**Tests:** The three midterms will be at the usual class time on Friday Feb. 11, Friday March 4, and Friday April 1. The final exam is on Friday, May 6, 1:30-3:30pm, location of final to be announced.

**Office hours:** I will hold regular office hours several time per week, exact times to be announced. At the beginning of the semester, office hours will be via zoom. Depending on how the pandemic progresses, I may offer in-person office hours later in the semester. I encourage you to come to office hours to discuss course material, homework questions, etc. with me and with other students. Because there will typically be several students together in office hours, please email me for an individual appointment at another time whenever you want to discuss something privately, such as grades, etc.

**Accommodations:** To obtain disability-related accommodations, students should contact both me and the [Disability Resources and Educational Services \(DRES\)](#) as soon as possible. I encourage you to use any accommodations to which you are entitled.

**COVID safety:** All university policies will be followed. I will check your building access status on the Illinois app at the beginning of each class period and I will show you mine as well. You must have building access “granted” status in order to attend class in person – no exceptions. See <https://covid19.illinois.edu/guides/students/> for up-to-date information on university policies.

If you feel at all unwell or if you have reason to think you may be infected with COVID, then do not come to class in person. Instead, use the zoom link to attend class at the usual time. Please take your responsibility to prevent the spread of COVID very seriously. Of course, if you are too sick to participate over zoom, then it will be an excused absence.

**Eating/Drinking:** No eating or drinking in class, but you are welcome to step outside the classroom if needed.

**Absences:** To learn effectively in this course, you need to be in class each day to work and discuss with your classmates. Therefore class participation will count as part of your grade. If necessary, due to quarantine or other COVID precautions, you may participate remotely via zoom, at the usual class time. If you have a valid reason to miss class entirely, such as for a religious holiday or if you are too sick to attend via zoom, then please contact me in advance for an excused absence.

**Academic Integrity:** Academic dishonesty will not be tolerated. Examples of academic dishonesty include the following:

- Cheating
- Fabrication
- Facilitating infractions of academic integrity
- Plagiarism
- Bribes, favors, and threats
- Academic interference
- Examination by proxy (letting someone else take an exam for you)
- Grade tampering
- Non-original work

Should an incident arise in which a student is thought to have violated academic integrity, the incident will be processed under the disciplinary policy set forth in the [Illinois Academic Integrity Policy](#) in the Student Code. Significant penalties will be imposed for cheating or other violations. This is not a hollow threat; I will take the time to follow through on each and every violation, and I will not show partiality to any student. You will find me flexible and understanding about difficulties you have related to this course, and you will find me firm and inflexible about cheating.

*Important note:* Much of the work before and during class will be collaborative. However, your final write-up for submitted problem sets should be your own, not a copy of a classmate's work or a copy of a solution from the internet. On exams, all work must be strictly your own.

If you do not understand relevant definitions of academic infractions, contact the instructor for an explanation within the first week of class.

**Grading Distribution** (more details will be posted on the Course Information tab in Moodle):

	Percentages
<b>Assigned preparation for each class period</b>	15%
<b>Participation in group work in class</b>	15%
<b>Submitted problem sets</b>	25%
<b>Midterm Exams</b>	Each 10%
<b>Final Exam</b>	15%
<b>Course Total</b>	100%

**Course grades:** 97-100 A+, 93-96 A, 90-92 A-, 87-89 B+, 83-86 B, 80-82 B-, 77-80 C+, 73-76 C, 70-72 C-, 60-69 D, 0-59 F

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