

MATH 302 - Foundations of Geometry Fall 2022

Instructor: Gabriela Bulancea

Lectures: Tuesday, Thursday 10:30 - 11:45 am, Exploratory Hall L111

Office Hours: TR 12:00 - 1 pm, or by appointment.

You can attend the office hours in-person in my office, or virtually, using the Zoom link on Blackboard (Office hours Zoom link).

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Text: *Foundations of Geometry (2nd Edition)*, by Gerard Venema, Pearson Education, Inc., 2012. We will cover most of the material in Chapters 1 through 10.

Prerequisite: Completion of 6 hours of MATH.

Broad purpose of the course: Give a mathematically rigorous treatment of Euclidean geometry and of the development of non-Euclidean geometry. Students will have the opportunity to explore geometry and its applications and to develop their abilities for abstract reasoning and writing proofs.

Technology: We will be using a geometry software package - you can use either GeoGebra, which can be found at GeoGebra, or Geometry Explorer which can be downloaded from Geometry Explorer.

We will also use a class OneNote Notebook in which we will summarize and complement parts of our class discussion.

Homework: Problem sets will be assigned regularly throughout the semester. You are expected to solve all the assigned problems, although only some of these problems will be handed in (through Gradescope) and graded. You are encouraged to discuss the assigned problems with your classmates, but you will have to write your solutions individually and be able to present your solutions in class.

Group projects: You will have to work on two projects. These will be worked in groups, each group will have to hand in one report for each project.

Class Tests: There will be two class tests given during regular class time. There is a tentative schedule for the tests below. You are responsible for keeping up with all information announced in the classroom and on Blackboard. There will be no makeup tests.

Test dates:

Test 1 Thursday, October 6

Test 2 Thursday, November 10

Final Exam: The final will be on Tuesday, December 13 between 10:30 am and 1:15 pm. It will be a cumulative exam. The final exam is mandatory regardless of your class standing prior to that. You may replace your lowest test grade with your final exam percentage. In order for this to happen you must write a note above your name on your final exam.

Class participation: Your participation to class discussion (in class and on the Harmonize discussion board) and regular attendance of office hours will count towards your class participation grade.

Grading: Each of the class tests counts for 20%, the graded homework and projects for 25%, class participation for 10%, and the final exam for 25%.

UNIVERSITY POLICIES: The University Catalog, <http://catalog.gmu.edu>, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at <http://universitypolicy.gmu.edu/>. All members of the university community are responsible for knowing and following established policies.

Honor Code: It is expected that each student in this class will conduct themselves within the guidelines of the Honor Code. Sharing with anyone information of any kind about exams before they are graded, or using online resources during the exams will result at a minimum in a grade of zero for all parties involved. Violations will also be reported to the university Honor committee where further consequences such as probation or expulsion from the university may be incurred. See <http://academicintegrity.gmu.edu/honorcode> for a copy of the Honor code.

Inclusivity and equity: George Mason University is an intentionally inclusive community that promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

Disability Services: Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu — Phone: (703) 993-2474

Gender identity and pronoun use: If you wish, please share your name and gender pronouns with me and how best to address you in class and via email.

Safe Return to Campus Statement To support your safety and the safety of everyone in this class, all students are required to complete the Mason COVID Health Check before each class meeting; I may ask you to show that you have received a green notification to participate in class. If you suspect that you are sick, please stay home and contact me about options for making up the missed class.