

MATH 302 - Foundations of Geometry Fall 2020

Instructor: Gabriela Bulancea

Lectures: Live Sessions via Zoom or Blackboard Collaborate Tuesday, Thursday 1:30 - 2:45 pm

Office Hours: MTWR 11:00 a.m.- 12:00 p.m., or by appointment

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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:

- The lectures will be delivered via Zoom or Blackboard Collaborate sessions. **You are required to attend these live sessions.**
- The office hours will be held in Zoom.
- The exams will be administered via Zoom. To be able to take the exams you will need a working webcam.
- We will be using a geometry software package - you can use either GeoGebra, which can be found at <https://www.geogebra.org/classic>, or Geometry Explorer which can be downloaded from <http://homepages.gac.edu/~hvidsten/geom-text/tutorials/gex/index.php>.
- We will use Piazza discussion boards and a OneNote Notebook to deliver and record material covered during lectures.

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 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 several 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 class time administered via Zoom. 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 1

Test 2 Thursday, November 5

Final Exam: The final will be on Tuesday, December 15 between 1:30 and 4:15 p.m. 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.

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

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Honor Code: It is expected that each student in this class will conduct themselves within the guidelines of the Honor Code. Given the format of the class, it is important to point out that sharing with anyone information of any kind about exams or quizzes (either before or during the tests), 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.

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