

EUCLIDEAN AND NON-EUCLIDEAN GEOMETRY

MATH 3120, Course #21013, Fall 2005

http://faculty.weber.edu/aghoreishi/Math3120_f05/Math3120_f05.asp/

Prerequisite: MATH SI1220 and either passing a placement exam or MATH 1020.

Textbooks: **Required Text:** Foundations of Geometry, Gerard A. Venema, Pearson Prentice Hall, ISBN 0131437003.

Optional Texts: A Fun and Informative Bedtime Reading: Journey into Geometries by Marta Sved, The Mathematical Association of America, ISBN 0883855003.

 An Excellent Book on the Art of Mathematical Writing: Mathematical Writing by Knuth, Larrabee and Roberts, The Mathematical Association of America, ISBN 088385063X.

 A Book with Synthetic Approach: An Introduction to Non-Euclidean Geometry by David Gans, Academic Press, ISBN 0122748506.

 A Book with Metric Approach: Elementary Geometry from an Advanced Standpoint by Edwin E. Moise, Addison Wesley, ISBN 0201508672.

 An Experimentalist Book: Experiencing Geometry On Plane and Sphere by David W. Henderson, Prentice Hall, ISBN 0133737705.

Class Meetings: TR 11:30-12:45, B4, Room509.

Instructor and Office Hours: Dr. Afshin Ghoreishi, B4 Rm. 505A, <http://faculty.weber.edu/aghoreishi/>, M 11:00-11:50, T 8:30-9:50, 12:50-1:30, W 9:00-9:50 and R 10:00-11:20. At other times, you can see me whenever I am in my office and not busy. You can also see me by making an appointment.

Course Coverage: We will cover parts of the chapters 1-14.

Procedures: In this course it is assumed that you are familiar with the Euclidean geometry. We will emphasize axiomatic development of geometry, non-Euclidean geometry, and proof and rigor. Our textbook is very well written and you will be assigned to read parts of the book on your own.

I will try to answer a few questions at the beginning of each class, but this time will be limited. We will have weekly homework, two exams and a comprehensive final exam. **Do not enter the class late & do not come to class if you have to leave early. Turn off pagers, cell phones and other such disruptive devices.**

Homework: I will assign some homework problems from the text and may also give some additional problems. Homework will be due **Thursday** in the gray plastic holder on my office door.

Do not just turn in any solution in the hopes of getting partial credit. At this stage, I expect you to be able to differentiate between good and bad work. Read your solution after completion and improve it as needed!

Do not solve problems side-by-side, write only on one side of each page and staple your homework. Write your name on the top center position of front page and number your pages as, for example; 1/7, 2/7, ... , 7/7 (if there are a total of 7 pages), on the top right hand corner of each page. **No** late homework will be accepted.