

University of North Texas at Dallas
SYLLABUS: MATH 4060 - 001 – Foundations of Geometry (3 Hours) – Fall 2016
Department of Mathematics and Informational Sciences – School of Liberal Arts and Sciences

Instructor Name: Dr. Richard Gene Chandler **Email Address:** richard.chandler@untdallas.edu
Office Location: _____ **Office Hours:** MTWR 11:30a – 12:30p
MW 4:30p – 5:30p
Office Phone: _____ **Class Time & Location:** MW 10a – 11:20a, DAL2 240

Catalog Description Selections from synthetic, analytic, projective, Euclidean and non-Euclidean geometry

Prerequisites A grade of C or better in MATH 3000.

Required Text Venema (2012). Foundations of Geometry, 2nd Edition. Prentice Hall. ISBN: 978-0-13-602058-5

Recommended Text Greenburg (2008). Euclidean & Non-Euclidean Geometries: Development and History, 4th Edition. Freeman and Company. ISBN: 978-0-71-1679948-0.

Learning Resources UNTD Library – Phone: (972) 780 – 3625, Web: www.unt.edu/unt-dallas/library.htm
UNTD Bookstore – Phone: (972) 780 – 3625, Email: 1012mgr@fhcg.follett.com

- Course Goals** The goal(s) of this course is to:
1. Understand axiomatic systems.
 2. Strengthen ability to construct sound mathematical arguments.
 3. Learn about important issues in the history of geometry.
 4. Improve geometric intuition.
 5. Improve oral and written communication skills in mathematics.
 6. Improve problem solving skills.
 7. Help the student develop skills of logical reasoning and careful presentation of proof.

- Objectives** Upon successful completion of this course, the students will
1. Describe the differences between Euclid’s approach and Hilbert’s approach.
 2. Describe some models of non-Euclidean geometry.
 3. Write rigid mathematical proofs.
 4. Explain important concepts of geometry.

Course Outline Priority will be given to understanding the material in depth rather than covering more topics. The schedule is subject to change by the instructor.

Month	Topic
August	Euclid’s Elements & Axiomatic Systems
September	Plane Geometry & Neutral Geometry
October	Euclidean Geometry & Hyperbolic Geometry
November	Area & Circles

Grading Matrix The following grading scale will be used to determine your final grade:

$$0 \leq F \leq 60\% \leq D \leq 70\% \leq C \leq 80\% \leq B \leq 90\% \leq A$$

Homework 50%
Midterm 25%

Final Exam 25%

Technology Use

Using technology, when appropriate is encouraged. Any graphing calculator that does not have a Computer Algebra System is approved. We will also be making use of the free online software Geogebra (www.geogebra.org). The use of laptops is permitted pending appropriate use. The use of cell phones is prohibited except in exceptional circumstances.

Homework

Homework will be assigned at the end of each section of the book. A subset of the assigned homework will be collected periodically, graded and returned with comments.

Midterm Exams

The Midterm Exam will be modelled off homework questions. Additional details will follow.

Final Exam

The final exam is comprehensive. Students must take the final exam at the designated time; no exceptions. It is your responsibility to make the necessary arrangements to attend the final exam.

Make-Up Exams

All exams should be taken during the designated time. No make-up exams will be allowed except for in the case of documented emergencies (see Student Handbook). All requests for make-up exams must be submitted to the instructor in writing, with the supporting documents. It is imperative that you contact your instructor as soon as possible (do not wait until you return to class)!

Email Policy

Use your Blackboard email account to contact me. You should check your email every day as you are responsible for all information I send out. Due to privacy rights, I will not discuss grades over the phone and I will only answer emails from your Blackboard account.

General Policies

Everyone in the class is to respect each other at all times. This includes listening to others opinions and ideas, putting forth the best of your effort for the good of the class and working only on topics related to the course (this includes the prohibiting of cell phone use, texting, reading, sleeping, etc...).

It is the students' responsibility to be aware of all announcements made for the class and changed made to the syllabus.

Leaving class early is generally prohibited. You may leave class if you are not returning in the case of an emergency. Leaving class should be by the permission of the instructor.

All questions regarding the grading of assignments would be asked within seven days of the return of the assignment.

You will NOT get a grade better than a C if you miss more than 5 classes. Missing more than 5 classes may result in being dropped from the course with a WF.

To do well in this course, you will need to stay on top of all homework and assigned readings. Reading the textbook before class is highly encouraged and homework should be worked on every day, not just the day before it is due.

Do not be afraid to make mistakes or ask questions in this class. I am in my office frequently and I am always happy to help if you would like to drop by.

University Policies and Procedures

Students with Disabilities (ADA Compliance): The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided

will not be changed as accommodations are not retroactive. For more information, you may visit Rosemary Meredith, Disabilities Services and Compliance Officer, Suite 204, Building 2 or call 972-338-1777.

Student Evaluation of Teaching Effectiveness Policy: The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

Academic Integrity: Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of academic integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Code of Academic Integrity at http://www.untDallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf In addition, all academic work turned in for this class, including exams, papers, and written assignments as follows: On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.

Bad Weather Policy: On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.untDallas.edu. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Attendance and Participation Policy: The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent. If students miss more than one class for other than a documented emergency (e.g. hospitalization, death in the family), then they may receive a 5% reduction in their overall grade.

Diversity/Tolerance Policy: Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.

Important Dates	First Day of Class	August 22, 2016
	Labor Day	September 5, 2016
	Census Date	September 7, 2016
	Midterm	October 17, 2016
	Drop Date	November 4, 2016
	Last Day of Classes	December 5, 2016
	Final Exams	December 7, 2016 – December 13, 2016