

COURSE SYLLABUS
MATH 3363, Section 01
EUCLIDEAN GEOMETRY
CREDIT HOURS: 3
Spring 2018

CLASSROOM AND SCHEDULE: Lee Drain Building, Room 401
Tuesday & Thursday, 9:30-10:50 a.m.

INSTRUCTOR INFORMATION:

Dr. Dustin L. Jones

Office: Room 421C Lee Drain Building Phone: 936-294-4776 Fax: 936-294-1882

Email: DLJones@shsu.edu

Office hours: Mon. & Wed. 1 – 2 p.m. Tue. & Thu. 8:30 – 9:30 a.m.

Other times available by appointment

CATALOG DESCRIPTION: This course consists of a modern development of Euclidean geometry and a limited introduction to non-Euclidean geometry. Writing enhanced. Credit 3. Prerequisite: MATH 3300 or consent of instructor.

COURSE OBJECTIVES: In this course, the student will:

- Develop a more sophisticated concept of the nature of Euclidean geometry through a careful and mature postulational development.
- Acquire knowledge of the relationships among the standard geometric figures as sets of points in a 2-dimensional space as well as a reasonable ability to construct geometric proofs.
- Become familiar with dynamic geometry software (such as GeoGebra) and use it to facilitate the development of proofs.

REQUIRED TEXTBOOK AND MATERIALS:

Wallace, E. C., & West, S. F. (2004). *Roads to Geometry* (3rd ed.). Upper Saddle River, NJ: Pearson.

ISBN: 978-013-141396-3

GeoGebra (Compter software.) This is free software, available at <http://www.geogebra.org>. A student may use the online version or download a copy to a computer or device for offline use.

ATTENDANCE POLICY: Regular and punctual attendance is expected of every student. Any student who is more than 30 minutes late to class will be counted absent. Students who are absent or tardy are still responsible for all material covered in class. Serious health or family problems that are well documented will be handled individually.

In addition to attending class faithfully, students are expected to put forth their best effort in this class. This includes, but is not limited to, actively participating in class discussions and activities. By way of contrast, *unprofessional behaviors will not be tolerated*. Unprofessional behaviors include sleeping, texting, laying your head on the desk, checking social media, or studying for other classes.

ASSIGNMENTS: Two types of assignments will be collected for credit: homework assignments and GeoGebra assignments. All assignments are due at the beginning of class. **Late assignments do not exist.**

If a student is not able to attend class for any reason, he or she may submit the assignment early.

If a homework assignment is submitted electronically, it should be in pdf format. Other formats (e.g., docx, jpg) will not be accepted. Students may submit GeoGebra assignments using the “share” feature.

PRESENTATIONS AND PROJECTS: Students will give presentations of theorems, examples, or solutions to homework problems during class time. These are assigned in advance on a chapter-by-chapter basis. Two projects will be assigned. They will consist of some in-depth investigation of the course material.

TESTS: There will be four tests and one comprehensive final exam. Tests will include problems that are similar to the problems assigned and worked in class. Unless approved by the instructor prior to the date of a test, there will be no make-up for a missed test. For the first test a student misses, the percentage score of the final exam grade will be used to replace the missing test grade. Any subsequent missed tests will result in a score of 0.

If a student has 2 or fewer absences during the semester, the grade on the final exam will replace the lowest test grade, provided that the final exam score is higher than the lowest test grade.

COURSE EVALUATION:

Category	Points Possible
Homework assignment average	100
GeoGebra assignment average	100
Presentation average	100
Projects (2 at 100 points each)	200
Tests (4 tests, point totals vary)	400
Final Exam (comprehensive)	100
Total	1000

GRADE ASSIGNMENT:

Points earned	895-1000	795-894	695-794	600-694	less than 600
Course grade	A	B	C	D	F

ACADEMIC DISHONESTY: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

CLASSROOM RULES OF CONDUCT: Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off and stored out of sight before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers and magazines, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

TELEPHONES AND MESSAGING DEVICES: The use by students of electronic devices that perform the function of a telephone or text messenger during class-time is **prohibited**. Arrangements for handling potential emergency situations may be granted at the discretion of the instructor. *Failure to comply with this policy could result in expulsion from the classroom or with multiple offenses, failure of the course.* Any use of a telephone or text messenger or any device that performs these functions during a test period is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty.

STUDENTS WITH DISABILITIES POLICY: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see <http://www.shsu.edu/dept/academic-affairs/aps/aps-students.html>

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS: University policy states that a student who is absent from class for the observance of a religious holy day must be allowed to take the examination or complete an assignment scheduled for that day within a reasonable time after the absence. Students will be excused to travel for observance of a religious holy day. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved. The instructor will then provide the student with a written description of the deadline for the completion of missed exams or assignments.

VISITORS IN THE CLASSROOM: Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom. This policy is not intended to discourage the occasional visiting of classes by responsible persons. Obviously, however, the visiting of a particular class should be occasional and not regular, and it should in no way constitute interference with registered members of the class or the educational process.

COPYRIGHT POLICY: All printed materials disseminated in class or on the web are protected by Copyright laws. One photocopy (or download from the web) is allowed for personal use. Multiple copies or sale of any of these materials is strictly prohibited.

SYLLABUS REVISIONS: All information on this syllabus is subject to change. Any changes will be announced in class and posted on Blackboard.

TENTATIVE SCHEDULE

<i>Tuesdays</i>		<i>Thursdays</i>	
		Jan. 18	Axiomatic Systems
Jan. 23	Axiomatic Systems	Jan. 25	Axiomatic Systems
Jan. 30	Axiom Sets for Geometry	Feb. 1	Axiom Sets for Geometry
Feb. 6	Axiom Sets for Geometry	Feb. 8	Test 1
Feb. 13	Neutral Geometry	Feb. 15	Neutral Geometry
Feb. 20	Neutral Geometry	Feb. 22	Neutral Geometry
Feb. 27	Neutral Geometry	Mar. 1	Neutral Geometry
Mar. 6	Test 2	Mar. 8	Euclidean Geometry of the Plane
Mar. 13	Spring Break – No Class Meeting	Mar. 15	Spring Break – No Class Meeting
Mar. 20	Euclidean Geometry of the Plane	Mar. 22	Euclidean Geometry of the Plane
Mar. 27	Euclidean Geometry of the Plane	Mar. 29	Euclidean Geometry of the Plane
Apr. 3	Euclidean Geometry of the Plane	Apr. 5	Test 3
	Project 1 due		
Apr. 10	Analytical Geometry	Apr. 12	Analytical Geometry
Apr. 17	Transformational Geometry	Apr. 19	Transformational Geometry
Apr. 24	Test 4	Apr. 26	Non-Euclidean Geometries
May 1	Non-Euclidean Geometries	May 3	Non-Euclidean Geometries
	Project 2 due		
May 8	No Class Meeting	May 10	FINAL EXAM 9:30 – 11:30 A.M