Instructor:	Hoan Duong	Credit hours: 3
Class Meeting:	TR 5:00-6:15pm	Office phone: 784-2253
Classroom:	STEM 231A	Office: STEM 311G
Office hours:	M 14:30-15:50 & W 14:30-16:50	E-mail: hduong@tamusa.edu
	TR 15:30−16:50pm *Other times by appointment.*	

Course Description and Materials

Catalog Description: An axiomatic approach to geometry to include contrasting traditional and modern approaches to geometry, an introduction to non-Euclidean geometry with historical perspectives, and applications. Prerequisite: Math 3325.

Required Textbook: David C. Kay, College Geometry: A Discovery Approach (2001), 2nd ed. Addison-Wesley ISBN 978-0-321-04624-2.

Student Learner Objectives: Students will gain understanding and knowledge of Euclidean and non-Euclidean geometry and their applications. Students who successfully complete the course will:
- Become familiar with the basic concepts of modern geometry and differences in approaches.
- Be able to explain the foundations of geometry to include the characteristics and properties of geometric entities.
- Become familiar with the basic concepts of non-Euclidean geometry.
- Develop a proficiency in reading, constructing and writing mathematical proofs in the context of an axiomatic approach to geometry.

In particular, students who successfully complete the course will demonstrate an understanding and working knowledge of:
- The basic concepts of modern geometry and differences in approaches.
- The foundations of geometry to include the characteristics and properties of geometric entities..
- The Axiomatic approach to geometry and proofs.
- Euclid's elements and influence of parallel postulate.
- Incidence Axioms and set theory with implications.
- Triangles and congruence criteria.
- Euclidean geometry to include trigonometry, coordinates and vectors.
- The basic concepts of non-Euclidean geometry to include other models of hyperbolic geometry.
- Geometric transformations, translations and rotations.
- Orthogonality concepts, parallelism and isometries in Space
- The basic concepts of spherical geometry.

Course Requirements and Expectations

Class Attendance/Participation: Students are expected to regularly attend class and prepare for class by reading appropriate section(s) in the text and completing assignments before class. Students are also expected *to present* concepts and problems from assignments as well as participate in class discussions.

Consistency and effort are the factors considered toward grade (e.g., in cases of one point difference between calculated grade and next letter grade).

Assignments: There will regular homework assignments which are to be submitted as indicated by instructor or posted on Blackboard. Graded assignments should be returned within 1-week of submission. *No assignments will be accepted late except for a legitimate reason approved by the instructor.*

Examinations: There will be two exams during the semester and a final (comprehensive) exam.

Evaluation of Student Performance: Each student's grade will be based solely on his/her performance. Final grade will be calculated as follows:

Assignments/Participation: 20%   Exam I-III 20% each   Final Exam: 20%

Course grades are based on percentage – A: 90-100%, B: 80-89.9%, C: 70-79.9%, D:60-69.9%, F: $< 60\%$.

As indicated above, attendance is important as is participation. However, attendance and participation alone are *not sufficient* to earn a passing grade. In particular, *students should not expect to get a passing grade for attendance and effort alone.*

Blackboard: Students are responsible for checking blackboard regularly for announcements, assignments, and other support materials posted on Blackboard.

Electronic Devices: Only wireless phones, laptops, PC tablets, etc. *used for class purposes are permitted*. Otherwise *turn off* electronic devices while class is in session.

Disputing Answers to Exam Questions: Obvious exam key errors will generally be corrected in class. Other disputes about answers to exam questions must be initiated within one week of when the exam was returned. Disputes must be submitted individually.

Dropping the Course: **It is the student's responsibility to drop a course.** *The instructor may not automatically drop you*. **Last day to drop with an automatic "W" is Mar. 27.** *Last day to drop a course or withdraw from the university is May 1*. Please contact the Welcome Center at 784-1300 if you desire to drop the course.

Services

JAGS: Additional academic skill resources can be found in *The JAGS (Jaguar Academic Guides to Success) Program*. JAGS offers academic skill building strategies and can assist you in developing an effective academic success plan. If you are interested in the JAGS program, please contact the Student Academic Success Center at (210) 784-1352.

Student Academic Success Center: The Student Academic Success Center takes a developmental approach to help students complete their academic goals from orientation through graduation. The Center offers academic and skills workshops, one-on-one appointments, and online resources to help retention efforts at Texas A&M University-San Antonio. The goal of the Center is to help students discover, self-reflect, and become independent learners. Student Academic Success is located in the Madla Building, Suite 336. To contact the Center, please call 210-784-1352 or email at Student.Success@tamusa.edu.

General Policies

Student Misconduct: Appropriate conduct is essential to the effective functioning of the university. University policy defines unacceptable conduct, both academic and non-academic misconduct, and penalties for such behavior. All policies and procedures for the Student Code of Conduct may be accessed on-line at http://www.tamusa.tamus.edu/uploadfile/folders/aprado/Pdf/Pdf-635139861789259476-10.100.20.118.pdf.

Your Instructor's Commitment to Academic Honesty and Integrity: Your instructor is sympathetic to the pressures faced by many students (e.g., full time employment, family responsibilities), and will do his best to provide you with any assistance you may need to succeed in this course. However, he also committed to awarding grades based on students' honest efforts. Therefore, your instructor will accept no excuses for any form of academic misconduct. All incidents of suspected academic dishonesty will be investigated and pursued to the fullest extent permitted by university policy.

Academic Dishonesty: Students at Texas A&M University-San Antonio are expected to adhere to the highest standards of academic honesty and integrity. Academic Dishonesty for which a student is subject to penalty includes **cheating, plagiarism, fabrication, multiple submission, misrepresentation of academic records, facilitating academic dishonesty, unfair advantage, violating known safety requirements** and **ethical misconduct.** This includes holding other students to same standards and reporting any incidents of alleged violation of the honesty policy to the instructor involved or, if necessary, to the appropriate academic department head. All students are responsible for being familiar with the Academic Dishonesty Policy which may be found in the Texas A&M University-San Antonio Student Handbook.

Nonacademic conduct: The University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede the exercise of those rights. Some examples are: physical or verbal abuse or threats; sexual misconduct or harassment; theft of property or services; and disruptive activities (see p.29 of the student handbook for the complete list). Such incidents will be adjudicated by the College Dean/Director of Student Rights and Responsibilities.

The Six Course Drop Rule: "Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "Fs" and will impact the student's GPA.

Disability Statement

STUDENTS WITH DISABILITIES: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disability. If you believe you have a disability that may require accommodations, please contact Counseling and Disability Support Services for the coordination of services. DSS is located on main campus, 2nd floor of the Central Academic Building, Suite 210, and on the Brooks City-Base Campus in Room 149. If you have any questions or need additional information, please contact us at (210)784-1335 or email us at dsupport@tamusa.tamus.edu.