



**MATH 321: Modern Geometry
Course Syllabus
Spring 2011**

Effective Date: Spring 2011

Instructor: Dr. Farrokh Saba

Office: SCIT 104G

Phone: 903-334-6656

Email: fsaba@tamut.edu

Office Hours:

Online: Contact instructor 24 hours a day (any day, anytime, anywhere) through Blackboard system.

In Office:

Tuesdays: 9:00 a.m.-12:30 p.m., 1:45 p.m.-4:00 p.m.

Wednesdays: 9:00 a.m.-1:15 p.m.

- I. Course Number: MATH 321**
- II. Course Title: Modern Geometry**
- III. Semester Credit Hours: 3 SCH**
- IV. Catalog Description:** Properties of finite geometries and of points, lines, triangles, and circles in Euclidean geometry. Computer geometry software will be utilized. Prerequisite: Calculus I.

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- V. Required Textbooks/Resources:** Electronic text will be used: My Math Lab (MML). ISBN-10: 0-321-19991-X. (9th Edition). Addison Wesley.
Optional (No need to buy): KAY, David C. College Geometry: A Discovery Approach, 2nd Edition. ISBN 0-321-04624-2.

VI. Student Learner Outcomes: After completion of this course the student will be able to:

1. Determine closed curves.
2. Determine convex polygon.
3. Determine concave polygon.
4. Identify scalene triangles.
5. Identify isosceles triangles.
6. Identify equilateral triangles.
7. Solve problems related to angles.
8. Solve problems related to regular polyhedra.
9. Solve problems related to Cylinders and cones.
10. Solve problems related to congruence.
11. Solve problems related to Geometric constructions.
12. Solve problems related to similar figures.
13. Solve problems related to lines and linear equations.
14. Solve problems related to measurement.
15. Solve problems related to areas of polygons and circles.
16. Solve problems related to Distance and equation of circle.
17. Solve problems related to surfaces, volumes, and masses of three dimensional shapes.

18. Solve problems related to motion geometry and tessellation.

VII. Course Outline:

Summer 10 Weeks:

Course Outline:

Fall/Spring 16 Weeks:

Week 1: Chapter 11. Introduction to Geometry. Work on Study plan, Homework for Chapter 11.

Week 2: Chapter 11. Introduction to Geometry. Work on Study plan, Homework for Chapter 11.

Week 3: Chapter 11. Introduction to Geometry. Complete ALL Study plan, Homework, Test for Chapter 11 must be completed by Friday 12:00 Noon local time.

Week 4: Chapter 12. Constructions. Integration by Parts. Work on Study plan, Homework for Chapter 12.

Week 5: Chapter 12. Congruence. Work on Study plan, Homework for Chapter 12.

Week 6: Chapter 12. Similarity. Work on Study plan, Homework for Chapter 12.

Week 7: Chapter 12. Lines and Linear Equations. Complete ALL Study plan, Homework, Test for Chapter 12 must be completed by Friday 12:00 Noon local time.

Week 8: Chapter 13. Concept of Measurement. Work on Study plan, Homework for Chapter 13.

Week 9: Chapter 13. Areas of Polygons and Circles. Complete ALL Study plan, Homework, Test for Chapter 13 must be completed by Friday 12:00 Noon local time.

Week 10: Chapter 13. Distance formula and Equation of a Circle. Work on Study plan, Homework for Chapter 13.

Week 11: Chapter 13. Surface Area. Work on Study plan, Homework for Chapter 10.

Week 12: Chapter 13. Volume, Mass, and Temperature. Complete ALL Study plan, Homework, Test for Chapters 13 must be completed by Friday 12:00 Noon local time.

Week 13: Chapter 14. Motion geometry and Tessellations. Work on Study plan, Homework for Chapter 14.

Week 14: Chapter 14. Symmetries. Work on Study plan, Homework for Chapter 14.

Week 15: Chapter 14. Complete ALL Study plan, Homework, Test for Chapters 14 must be completed by Friday 12:00 Noon local time.

Week 16: Complete Comprehensive Exam (over ALL Chapters 11-14) by Monday 12:00 Noon local time.

VIII. Course Requirements: ALL Study plan, Homework, Tests, Comprehensive Exam must be completed by the deadlines otherwise student will receive a grade of 0 (zero) for that missed deadline for corresponding Study plan, Homework, Tests, Comprehensive Exam.

IX. Methods of Evaluation:

"Mastery" students have the opportunity to resubmit their work (Study plan, Homework, and Tests) and make necessary improvement to a satisfactory standard. Resubmission must satisfy deadlines. While a satisfactory retest score will indicate mastery, the recorded Homework, Tests scores will be the average of the original Homework or Tests and the resubmission score.

X. Grading Scale:

There will be Study Plans for each chapter worth 20% of the course grade (Study Plan for ALL assigned chapters must be completed to earn 20% of the course grade - No partial credit). Homework worth 20% of the course grade, and Tests worth 25% of the course grade. Total of 10% of the course grade is for participation in ALL course activities and Discussions in Blackboard during semester (No partial credit for Study Plans or course activities and Discussions in Blackboard). One Comprehensive Exam (this Exam includes the entire course materials-over all chapters) worth 25% of the course grade. Due dates for ALL study plans, homework, tests and Comprehensive Exam will be announced later. Therefore, 20% for ALL Study Plans completed, 20% Homework, 10% for All Discussions participated, 25% for tests, and Comprehensive Exam 25% of the course grade.

Students MUST submit ALL study plans, homework, Tests on time.

Note: The Comprehensive Exam is over ALL assigned chapters.

The final grade will be based on the total percent accumulated according to the following scale:

- A: 90% or greater
- B: 80% to less than 90%
- C: 70% to less than 80%
- D: 60% to less than 70%
- F: Less than 60%

XI. Faculty Office Location and Contact Policy: ALL communications will be through Blackboard system 7 days, 24 hours.

XII. Complete Course Schedule:

Summer 10 Weeks:

Course Outline:

Fall/Spring 16 Weeks:

Week 1: Chapter 11. Introduction to Geometry. Work on Study plan, Homework for Chapter 11.

Week 2: Chapter 11. Introduction to Geometry. Work on Study plan, Homework for Chapter 11.

Week 3: Chapter 11. Introduction to Geometry. Complete ALL Study plan, Homework, Test for Chapter 11 must be completed by Friday 12:00 Noon local time.

Week 4: Chapter 12. Constructions. Integration by Parts. Work on Study plan, Homework for Chapter 12.

Week 5: Chapter 12. Congruence. Work on Study plan, Homework for Chapter 12.

Week 6: Chapter 12. Similarity. Work on Study plan, Homework for Chapter 12.

Week 7: Chapter 12. Lines and Linear Equations. Complete ALL Study plan, Homework, Test for Chapter 12 must be completed by Friday 12:00 Noon local time.

Week 8: Chapter 13. Concept of Measurement. Work on Study plan, Homework for Chapter 13.

Week 9: Chapter 13. Areas of Polygons and Circles. Complete ALL Study plan, Homework, Test for Chapter 13 must be completed by Friday 12:00 Noon local time.

Week 10: Chapter 13. Distance formula and Equation of a Circle. Work on Study plan, Homework for Chapter 13.

Week 11: Chapter 13. Surface Area. Work on Study plan, Homework for Chapter 10.

Week 12: Chapter 13. Volume, Mass, and Temperature. Complete ALL Study plan, Homework, Test for Chapters 13 must be completed by Friday 12:00 Noon local time.

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Week 14: Chapter 14. Symmetries. Work on Study plan, Homework for Chapter 14.

Week 15: Chapter 14. Complete ALL Study plan, Homework, Test for Chapters 14 must be completed by Friday 12:00 Noon local time.

Week 16: Complete Comprehensive Exam (over ALL Chapters 11-14) by Monday 12:00 Noon local time.

XIII. Student Participation:

a. Participation Policy: Participation of students in discussions is encouraged:

Total of 10% of the course grade is for participation in ALL course activities and Discussions in Blackboard during semester (No partial credit for Study Plans or course activities and Discussions in Blackboard).

b. Course Etiquette: *Respect each other and be polite when interacting online with other class members or with the instructor.*

c. Discussion Board Standards:

- Please post responsibly.
- Be polite.
- Self-promotion of businesses or advertisements of anything for sale are not permitted.

XIV. Disability Accommodations: Students with disabilities may request reasonable accommodations through the A&M-**Texarkana** Disability Services Office by calling 903-223-3062.

XV. Academic Integrity: Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

XVI. A&M-Texarkana** Email Address:** Upon application to Texas A&M University-**Texarkana** an individual will be assigned an A&M-**Texarkana** email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-**Texarkana** email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

Include the following explanation for web-enhanced and online courses.

XVII. Student Technical Assistance:

- Solutions to common problems and FAQ's for your web-enhanced and online courses are found at this link:
<http://www.tamut.edu/webcourses/index.php?pageid=37>
- If you cannot find your resolution there, you can send in a support request detailing your specific problem here: <http://www.tamut.edu/webcourses/gethelp2.php>
- Blackboard Helpdesk contacts:
Office hours are: Monday - Friday, 8:00a to 5:00p
Kevin Williams (main contact) 903-223-1356 kevin.williams@tamut.edu
Frank Miller (alternate) 903-223-3156 frank.miller@tamut.edu
Nikki Thomson (alternate) 903-223-3083 nikki.thomson@tamut.edu