Math 321: College Geometry

Fall 2021   3 credits   Instructor: Dr. Dibbs

Instructor: Rebecca Dibbs, PhD
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Office: 318 Binnion
Office Hours: MW 10-11; TR 11-12
Class Meets: ftf
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Texts: College Geometry: A Discovery Approach, 2nd Edition, David Kay.

MATH 321 - College Geometry
Hours: 3
A study of advanced topics in Euclidean plane geometry and an introduction to non-Euclidean geometry. Emphasis will be placed on the axiomatic method. Prerequisites: MATH 332 or 2305 with grade of "C" or higher.

Grades: I expect everyone to complete all course requirements. The effort, detail, and thoughtfulness you put into your work should reflect the standards of performance you will be expected to meet as a teacher or other professional:

 • meticulous preparation

• use and application of mathematical knowledge

• careful consideration of alternatives

 • genuine curiosity about all ideas

• collegial work • analysis and reflectiveness

• clear expression, with respect for the place and value of precision

• organization

• Timeliness

Your final grade will be composed as follows based on your performance of each of the course requirements (described in detail in the sections that follow):

Homework	25%
Test 1	15%
Test 2	15%
Test 3	15%
Final	30%
Total	**100%**

All grades will be rounded to the nearest percent, then assigned letter grades based on the following scale

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90-100 A   60-69 D

80-89 B   0-50 F

70-79 C

Homework and Writing Assignments: There will be regular classwork and daily assignments to be used as tools to develop your understanding of topics. Homework assignments will be assigned daily in class and submitted prior to the next class period through D2L. They will be graded for completion and attempted work and may include responses to readings and student work along with proofs and other formats of questions. Writing assignments will be given regularly and will involve more in-depth explanations and writing. They will be graded for accuracy and completeness. At least one week will be given to complete a Writing Assignment.

Assessments: There will be one Mid-Term Assessment consisting of in-class and take home sections and one cumulative final exam. There will also be short announced and unannounced quizzed during the semester. Questions will focus on reasoning and explanation of ideas, reflect the classwork and homework assignments, and will include demonstration of your mathematical knowledge for teaching.

Hints for Success: The best approach is to strive for a solid understanding of the course topics and to accept at the start that this necessarily entails some struggling with ideas and feelings of frustration. The course problems take time, especially time to explore and think about the ideas. Often your will need to walk away for a while or for a day, and return to a problem for a second or third look before writing up your response. Expect this. However, do not get behind on the problems. Try to cultivate an approach that is a nice balance between "just getting it done" and avoiding it altogether. Stay connected, and come see me if you are having difficulties.

Outside Sources: A central aim of this course is to help you learn to develop your own ideas about mathematical questions. You therefore should **NEVER** consult any reference materials outside of the course texts in answering questions for this course. This includes materials found on the internet. *The ideas that you present should be your own*.

Office Hours: My office hours are listed above, and will be held in 318 Binnion Hall. Please come see me! The best way to make an appointment or to get in touch with me for any other reason is to send me an email.

Attendance: It is absolutely vital for an interactive class like this that you come to class and participate. Your attendance will count as part of your class participation grade, and excessive late arrivals will count as an absence.

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TECHNOLOGY REQUIREMENTS

Use of a graphing calculator having at least the capabilities of the TI-83 will be helpful throughout the course. TI-89 is highly recommended. A computer algebra system will be used for some problem exploration, enhanced conceptual understanding, and to engage students as active participants in the learning process. We will also being using R sometimes. R is a free statistical software that you can download from https://www.r-project.org/

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

My primary form of communication with the class will be through Email and Announcements. Any changes to the syllabus or other important information critical to the class will be disseminated to students in this way via your official University Email address available to me through MyLeo and in Announcements. It will be your responsibility to check your University Email and Announcements regularly.

Students who Email me outside of regular office hours can expect a reply within 24 hours M-F. Students who Email me during holidays or over the weekend should expect a reply by the end of the next regularly scheduled business day.

myLeo Support

Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at https://leo.tamuc.edu.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

Academic Honesty

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including (but not limited to) receiving a failing grade on the assignment, the

possibility of failure in the course and dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. In **ALL** instances, incidents of academic dishonesty will be reported to the Department Head. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion.

Cheating is defined as:
- Copying another's test of assignment
- Communication with another during an exam or assignment (i.e. written, oral or otherwise)
- Giving or seeking aid from another when not permitted by the instructor
- Possessing or using unauthorized materials during the test
- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key

Plagiarism is defined as:
- Using someone else's work in your assignment without appropriate acknowledgement
- Making slight variations in the language and then failing to give credit to the source

Collusion is defined as:
- Collaborating with another, without authorization, when preparing an assignment

If you have any questions regarding academic dishonesty, ask. Otherwise, I will assume that you have full knowledge of the academic dishonesty policy and agree to the conditions as set forth in this syllabus.

Late Policy: Late work/Make-ups will not be accepted without a documentable and valid excuse, because the lowest grade(s) in each category is dropped. Examples of documentable and valid excuses include:
*car accident w/ police report
*illness w/ doctor's note (you or your child)
*athletic or other mandatory extra-curricular travel
*field trip for another class
*being detained upon entering the country by Homeland Security

University Specific Procedures

ADA 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 disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).*

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel.

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Course Calendar

Note: All Homework is due at the start of class on Monday, with the exception of 6.4 homework. 6.4 homework is due on the day of Test 3.

Week	Monday	Wednesday
8/30	2.1	2.2
9/6	2.3	2.4
9/13	2.5	3.1
9/20	3.3	3.4
9/27	3.5	3.6
10/4	Test 1	3.7
10/11	3.8	4.1
10/18	4.2	4.3
10/25	4.4	4.5
11/1	5.1	5.2
11/8	Test 2	5.3
11/15	5.4	5.5
11/22	No Class; Read 6.1 on your own	No Class; Thanksgiving Break
11/29	6.2	6.3
12/6	6.4	Test 3
12/13	Finals	Week

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Unit 2 Homework:

3.7: 2-4, 6, 8, 12

3.8: 2, 3, 12

4.1: 1, 2, 4, 8, 15

4.2: 1, 3, 9, 10

4.3: 2, 4, 9

4.4: 1

4.5: 1, 2, 5, 18

5.1: 1, 2, 4, 8

5.2: 1-3, 7, 19

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Unit 3 Homework:

5.3: 1, 3, 5, 6, 7, 8

5.4: 1-3, 8, 15

5.5: 1-3, 5, 11, 13a

6.1: Read this section on your own; no problems

6.2: 3, 11

6.3: 1, 2, 4, 7, 13

6.4: 1, 2, 5, 11a