

**GLEN ROSE HIGH SCHOOL**  
**SYLLABUS and OUTLINE**  
**FOR**  
**HONORS GEOMETRY**  
**2023-2024**

**I. INSTRUCTOR**

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Tutorial Times: By Appointment

Room: 504  
Conference/Planning Period: Eighth

**II. INTRODUCTION**

Geometry is my favorite math course. The word geometry is a Greek word that means “earth measurement.” It is said that the first geometers were the Egyptians. The most famous geometers, however, are the Greeks. People such as Thales, Pythagoras, Euclid, and Plato are just a few of the more famous geometry scholars. Geometry is full of history, applications, and rigor. A geometry course would not be a “true” geometry course without a proof or two!

This course will cover the vital elements of Geometry, but also serve as an excellent prerequisite course for Algebra II. The curriculum for this course will include the following basic elements: (1) Basic geometric definitions; (2) Geometric figures; (3) Transformations; (4) Triangles; (5) Measuring in a plane and in space; (6) Reasoning skills; (7) Quadrilaterals; (8) Similarity; (9) Right triangles; (10) Trigonometry; and (11) Circles.

**III. PREREQUISITES**

The prerequisite for this course is the successful completion of Algebra I. Although it is not required, ideally these students should also score close to or in the “commended” range on the Algebra I STAAR.

To excel in this class, a student must have good Algebra skills. It is suggested that if a student thinks their Algebra I skills are not “as good as they should be,” that student should think about enrolling in a regular geometry class, or if they decide to stay, take some extra time to review their Algebra I skills.

**IV. EXPECTATIONS**

This course is intended for those students that excel in mathematics, and/or enjoy math. Those students who have been bored in the regular math classes will hopefully be challenged in this class. **Students enrolled in this course should be self-motivated and self-disciplined.** This is not Algebra II! You will certainly use Algebra in this class, but geometry uses a totally different approach to working with mathematics.

The idea behind Honors and AP classes is not to assign more work or projects, but to push the student to think beyond the basic levels of Bloom’s Taxonomy. They will be asked think on the higher levels such as analysis, synthesis, and evaluation. I will take their Algebra skills and apply them to new situations. And yes, we will do proofs! There is no better way to work on the higher levels of Bloom’s Taxonomy than to have a student prove a theorem. Many college math classes such as Calculus and Number Theory require that their students use proofs to verify certain theorems.

I also expect my students to be dedicated to my class. In other words, they need to be focused on geometry for the forty-five minutes that they are in this class. If a student is caught working on another subject in class, they will be warned and told to put it away. If it happens again, that work will be taken up. In order to do well in this class, you must be focused on this class. I do not expect my students to work on my assignments in geography or Spanish, and I do not want them working on those subjects in my class. I have less than one hour a day to get everything accomplished...and I need every minute of that time!

Dedication to this class also means giving this class as much effort and time as you would to any of your other classes. Each student in this class, will be enrolled in several challenging classes this year. Each class is important, not only to the student, but also to the instructor. Make sure that you give equal time to each class, and try not to spend an overabundance of time on just one subject. This will be especially important if you are taking classes online. You will need to develop a work schedule for your classes when you are at home.

The ultimate goal of the AP program is to prepare students to take AP Calculus or AP Statistics. Our hope here, in the mathematics department, is that each student that takes Honors Geometry will eventually take AP Calculus or AP Statistics. A member of the College Board once told us at a parent meeting that Honors and AP courses should be viewed as “like taking a college course in a high school setting.” He also emphasized that it is not “what you make, but what you take” that impresses the college admissions boards. College courses require dedication, hard work, and time. I will require the same of my students in Honors Geometry.

## **V. Course Delivery Methods**

### ***Face-to-Face/Traditional***

In this method, students will be in the classroom with a teacher each day, receiving instruction, working practice problems, and completing assignments in class. Homework assignments will be assigned and should be completed and ready to turn in the next day.

### ***Online Instruction***

With this method, instruction will be delivered through recorded videos that may be found in Canvas. Zoom meetings will be held during the time class would be held in a “face-to-face” situation. During the Zoom meetings, the teacher will answer questions about the video and homework assignment. Attendance is required for these Zoom meetings.

Students will be assigned work through Canvas and/or Big Ideas. In some cases, the student may be expected to submit assignments to the teacher through Canvas. There will be due dates, just as there would be in the traditional classroom, which the student is expected to follow.

\*\*\* Please note that the date for each test will be given in advance, so the student should make plans to take the test at that time. Most of these tests will have a “free answer” part that must be submitted to the teacher through Canvas. For this addition, showing all work will be required. The addition to the test must be submitted by the due date given.

### ***Blended Instruction***

This method is a combination of the previous two methods. This method is not offered at Glen Rose High School.

## **VI. MATERIALS**

Students who are enrolled in this course are expected to have the following materials...

### **Package of Pencils**

**Notebook Paper**  
**Binder – 2” to 3”**  
**Calculator**  
**Laptop**

We have hard copies of our textbook, but there are very few of them. If you need one of these textbooks, you will need to let me know. If you take one of these books, you will need to make sure that it is covered. You may also find the textbooks online at the school website. Simply go to the Glen Rose ISD website to find a link for Stoneware which will lead you to Big Ideas, or you may find a link to the textbook in Canvas.

Calculators are also needed. If you would like to check one out, please get the “Calculator Sheet” signed and return it. We should have enough calculators for anyone that wants one. The student will need to provide batteries for their calculator if they are not available from the teacher.

As a teacher, I feel that keeping a notebook is essential! The notebook is a good place to keep up with tests, daily work, and especially notes. We will cover a lot of ground between August and May. Every student will be expected to take the mid-term exam in December and a final exam in May which are both cumulative, so those notes and old tests will be useful when reviewing for those exams. I will require then, that students keep a notebook that will be graded from time to time. I have dividers for the notebook, so all you will need is a 2” to 3” binder. This grade will be recorded as a test grade.

## **VII. HOMEWORK AND QUIZZES**

I will assign homework almost every day. This work might be in the form of a worksheet, possibly two or three problems that the teacher will assign from the class discussion, or an assignment in Big Ideas. **Just because the work has been assigned, does not mean that a grade will be entered into Skyward for it.** Homework is assigned so that the students may practice on a particular skill. It is important that they complete their work, and even more important that they ask questions about something they don’t understand. It is also important that if the assignment is to be turned in, the student show all work. In order to find out why an answer is incorrect, I must know how you arrived at that answer and the only way to do that is to see your work.

I will check on your progress by giving quizzes. This is my way of checking to see if everyone understands the concepts. Quizzes are considered daily work. The only difference is that you will be doing the quiz without any assistance.

## **VIII. TESTS**

We will have approximately two tests during each six weeks. These tests will not necessarily cover a particular chapter, but will in most cases, cover a particular subject area. For instance, we may have a test just over polygons, or just the trapezoids and kites from the quadrilateral family.

If the student is doing their homework, asking questions, and looking over their notes each night, they should do well on the tests.

Many of the tests will have multiple-choice questions, and some true and false questions. Please remember that there will also be a lot of free answer questions on these tests. Many of these questions will require that work be shown. These questions tell me a lot more about your knowledge of the subject than the multiple-choice questions will.

\*\*\*You will be expected to finish each test during the time allotted for class. The SAT and ACT are timed tests, so keep that in mind as you take your geometry tests. You will need to make sure that you are ready to begin the test as soon as class begins. You will need to pace yourself, don’t

spend too much time on one problem, and skip problems that you aren't sure of so that you can come back to them once you have finished that section. **You will not be able to stay after class to finish, come in at lunch to finish, or come in after school to finish.**

Retesting is permitted only under the following conditions:

- The student received a failing grade on a test on the first attempt. There will be no retesting to bring up a passing grade.
- All daily assignments that pertain to the test must have been completed and turned in on time.
- The student must attend a tutorial session outside of class (before or after school) to discuss the problems on the first test. This tutorial session must be scheduled with me.
- The retest must be accomplished within one week of the **original test date**. Retests must be scheduled for a day **after** school. If the student does not show up on the scheduled day, the retest will be forfeited.
- The retest will **NOT** be the same test taken the first time around.
- The highest possible replacement grade on the retest is a 70. A grade of 70 is not, however, guaranteed. You will receive a 70 only if you get at least 70% of the retest correct.

## IX. Absentee Work

**Extracurricular Absences** – A student involved in an extracurricular activity must notify his or her teacher ahead of time about any absences. If the student is involved in any extracurricular activity, it is the student's responsibility to ask for assignments prior to the absence. The student is still responsible for taking a quiz or test on the assigned date even if the student had an absence prior to the extracurricular activity. Any work missed during the absence such as book work, worksheets, or projects, should be completed and turned in to the teacher once the student returns. **It is also an excellent idea to check in Canvas to see what has happened in class while the student was gone.**

**Other Absences** – The student will be responsible for obtaining and completing the work missed during an absence. All daily work and/or tests that are missed during an absence should be completed by the second day following that absence. A student who does not make up assignments within the time allotted, will receive a late grade or zero for the assignment.

## X. TUTORIALS

I usually arrive at the school around 7:15 am. If you need some help, you may come in before school or stay after school. The only time that I won't be available is if I have a faculty meeting, parent conference, or duty. I cannot guarantee that a tutorial bus will always be available to take students home. So, if a student decides to stay after school for tutorials, they will need to make arrangements to get home.

It is important for the student to decide what is important to them. If they are having difficulties in geometry, then they should be coming in for tutorials.

\*\*\* **Do not use athletics or band as an excuse for not attending tutorials!!**

Our coaches and band directors have made it very clear in our faculty meetings that academics is just important as extracurricular activities. They will not keep you from attending tutorials. What they will require, is confirmation that you were where you said you would be. Often, that means that I will have to write you a note when you leave tutorials, but sometimes that means that I will have to write your coach or director an email. My class is important to me, so **I will not have a problem** contacting the coach/director/Athletic Director if you do not take care of business for my class.

## **XI. OBJECTIVES**

### First Six Weeks

1. Inductive and Deductive Reasoning
2. History of Geometry
3. Algebra Review - Working with Radicals
4. The Pythagorean Theorem and Special Right Triangles
5. The Distance and Midpoint Formulas
6. Perimeter and Area of Two Dimensional Figures
7. Euclid's Undefined Terms and Other Definitions
8. Our First Postulates and Theorems

### Second Six Weeks

1. Our First Theorems and Postulates
2. Symmetry
3. Transformations
4. Constructions
5. Dilations
6. Composites
7. Tessellations
8. Algebra Review – Graphing

### Third Six Weeks

1. More Algebra Review
2. Conditional Statements
3. Deductive Reasoning – Algebra and Geometry Proofs
4. Transversals and Pairs of Angles
5. When Are Lines Parallel?
6. Algebra Review – Ratios and Proportions
7. Similar Figures – Properties and Getting Triangles Similar
8. Proportional Segments
6. Similar Figures – Perimeter, Area, and Volume

### Fourth Six Weeks

1. Theorems for Triangles and Polygons
2. Constructing Polygons
3. Congruent Triangles
  - a. Constructions
  - b. Postulates
  - c. Theorems
  - d. CPCTC
  - e. Theorems for Isosceles Triangles
4. Introduction to Coordinate Proofs
5. Concurrent Lines
6. Quadrilaterals

#### Fifth Six Weeks

1. Quadrilaterals and Coordinate Proofs
2. Algebra Review – Inequalities
3. Inequalities in One and Two Triangles
4. Indirect Proofs
5. Trigonometry – Sine, Cosine, and Tangent
6. Angles of Elevation and Depression
7. Law of Sines and Law of Cosines

#### Sixth Six Weeks

1. Law of Sines and Law of Cosines
2. Circles
3. Solids

**\*\* This schedule is subject to change as deemed necessary by the instructor.**

### **XI. GRADING POLICY**

There will be approximately two tests given in each grading period, along with numerous quizzes, and homework assignments. The daily quizzes will cover the material assigned as homework. Therefore, if the student does not do the homework, they will not do well on the quizzes. The tests will come from the material covered in class, which is reinforced through the homework and quizzes.

For each six weeks grading period, the tests will be 70% of the grade. The daily work and quizzes will make up 30% of the grade.

### **XII. ONLINE GRADEBOOK, CANVAS, AND SCHOOL EMAIL**

Each student and their parents/guardians have access to the student's grades online, every day and at any time. Please make a point to look at your grades from time to time. I will take several grades during the week, and I will make every effort to grade the work as it comes in.

There are several ways to note that an assignment is missing. Please notice the notation in the grade book. If you are absent and miss an assignment, there will be a **zero there until the work is completed.** This is also true for an assignment that is simply not turned in. It will remain a zero until it is completed. If the zero is for a test grade, that probably means that the test was missed and has not been made up yet. If the assignment grade has not been entered yet, you will see a “\*” for that grade.

It is the student's responsibility to check their grades, and to take care of any zeroes that they see. Parents should discuss any zeroes that they see in the grade book with their child first to determine where the child is in the process of getting that assignment taken care of. The parent is welcome to contact the teacher anytime they feel they need clarification.

Canvas is an excellent educational tool. I would suggest, as does our Technology Department, that you access it each night, and your parents access it at least once a week. You will find my syllabus/outline there, along with my assertive discipline plan, a list of assignments, instructional videos, flipcharts, and occasionally a quiz or test to take. Canvas is also where students will submit their work, if we transition to an online learning situation. Many colleges use a platform similar to Canvas (Blackboard, Schoology, etc.) to communicate with their students, and in some

cases it may be your only way to communicate with a professor. Please become familiar with Canvas.

Each student has a GRISD email account. It is important that the student look at their email each day, especially during an online learning situation. During a span of two months, a student could receive as many as eighty emails in their account, and most of those messages are coming from the school. It is also important that students use that GRISD account to send messages to their teachers. Do not use your personal email to send messages to the school! If you are using a personal email account to send a message, many times those messages will go into “junk” mail, or may not come through at all.