Geometry A | Syllabus

Course Description:
This .5 credit course discusses the properties of geometric figures and the methods of deductive reasoning.

Time Requirements:
This semester course contains 31 modules and is designed to fulfill the state-required 60 contact hours. Students should spend 7.5 hours per week, completing at least 4 modules each week of the 8-week program. Each bulleted item in the assignment list below is a module. TIP FOR SUCCESS: It is best to work on your course consistently to allocate time for technical and/or content assistance, if needed.

Grading Scale:
All modules must be complete to earn credit for the course. An average of all scores on the mastery tests, post-tests, and end of semester test will be calculated to determine a final grade. All tests are equally weighted. There are no + or – grades issued. As long as the course is entirely complete, you cannot fail.

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69% (or 0-69% on posttests and end of semester tests)
I = Incomplete (final grade for courses that are not entirely complete)

Pretests:
Each unit begins with a module that contains one pretest. Pretests provide an opportunity to exempt out of modules within the unit based on prior knowledge; the pretests are not for a grade. You may take the pretest one time. While you are not required to complete exempt modules, the unit posttests may contain questions from exempt modules; therefore, you may choose to complete exempt modules to review for the posttests. The grade for exempt modules will be 100% whether you choose complete it for review or not.

Mastery Tests:
The minimum score required to complete a mastery test is 80%. If you score less than 80%, the test will lock. Go back through the preceding activities for that module to automatically unlock the test. You have unlimited attempts on the mastery tests, and each mastery test must be complete in order to earn credit for the course.
Post Tests/End of Semester Test:
You may take these tests one time. The score for the Post/End of Semester tests will be 0-100%. This score is factored into your final grade.

Assignment List:
Please read the information in the course resources before getting started on the assignments.

Unit 1: Introduction to Geometry and Transformations
- Unit 1 - Pretest
- Introduction to Geometry
- Basic Geometric Concepts
- Representing Transformations in a Plane
- Returning a Polygon to Its Original Position
- Defining Rigid Transformations
- Predicting Results of Rigid Transformations
- Unit 1 – Post Test

Unit 2: Congruence, Proof, and Constructions
- Unit 2 – Pretest
- Transformations and Congruence
- ASA, SAS, and SSS Criteria for Congruent Triangles
- Lines, Angles, and Mathematical Proofs
- Proving Theorems about Lines and Angles
- Proving Theorems about Triangles
- Proving Theorems about Parallelograms
- Geometric Constructions with Lines and Angles
- Unit 2 – Post Test

Unit 3: Similarity and Proof
- Unit 3 – Pretest
- Properties of Dilations
- Similarity and Similarity Transformations
- Similarity, Proportion, and Triangle Proofs
- Using Congruence and Similarity with Triangles
- Unit 3 – Post Test

Unit 4: Trigonometry and Geometric Modeling
- Unit 4 – Pretest
- Trigonometric Ratios
- Sine and Cosine of Complementary Angles
● Solving Problems with Right Triangles
● Proving the Laws of Sines and Cosines
● Applying the Laws of Sines and Cosines
● Unit 4 – Post Test

End of Semester Test – Geometry A