## Course Syllabus

**Description:**

Geometry exists everywhere in the world around you. We use it to build bridges, to design maps, or to create perspective in paintings. Throughout this course, you will use problem solving and real world application to gain the knowledge of geometric concepts and their practical uses.

**Estimated Completion Time:** 2 segments / 32-36 weeks

**Major Topics and Concepts:**
**Segment I:**

**Getting Started**

- 00.01 Things to Know
- 00.02 Navigation
- 00.03 Lessons & Assessments
- 00.04 Course Specifics
- 00.05 Online Learning 101
- 00.06 Pace
- 00.07 Academic Integrity

**Module One**

- 01.00 Module One Checklist and Pretest
- 01.01 Basics of Geometry
- 01.02 Basic Constructions
- 01.03 Constructing with Parallel and Perpendicular Lines
- 01.04 Module One Quiz
- 01.05 Constructions with Technology
- 01.06 Introduction to Proofs
- 01.07 Module One Activity
- 01.08 Module One Review and Practice Exam
- 01.09 Module One Discussion-Based Assessment
- 01.10 Module One Exam

**Module Two**

- 02.00 Module Two Checklist and Pretest
- 02.01 Translations
- 02.02 Reflections
- 02.03 Rotations
- 02.04 Module Two Quiz
- 02.05 Rigid Motion and Congruence
- 02.06 Module Two Activity
- 02.07 Module Two Review and Practice Exam
- 02.08 Module Two Discussion-Based Assessment
- 02.09 Module Two Exam

**Module Three**

- 03.00 Module Three Checklist and Pretest

- 03.01 Line and Angle Proofs
- 03.02 Triangle Proofs
- 03.03 Module Three Quiz
- 03.04 Parallelogram Proofs
- 03.05 Reflection Checkpoint
- 03.06 Module Three Activity
- 03.07 Module Three Review and Practice Exam
- 03.08 Module Three Discussion-Based Assessment
- 03.09 Module Three Exam

**Module Four**

- 04.00 Module Four Checklist and Pretest
- 04.01 Dilations
- 04.02 Similar Polygons
- 04.03 Module Four Quiz
- 04.04 Similar Triangles
- 04.05 Module Four Activity
- 04.06 Module Four Review and Practice Exam
- 04.07 Module Four Discussion-Based Assessment
- 04.08 Module Four Exam

**Module Five**

- 05.00 Module Five Checklist and Pretest
- 05.01 Triangle Congruence and Similarity
- 05.02 Module Five Quiz
- 05.03 Applications of Congruence and Similarity
- 05.04 Module Five Activity
- 05.05 Module Five Review and Practice Exam
- 05.06 Module Five Discussion-Based Assessment
- 05.07 Module Five Exam
- 05.08 Segment One Reflection Checkpoint
- 05.09 Segment One Practice Exam
- 05.10 Segment One Exam

**Segment II**
**Module Six**

- 06.00 Module Six Checklist and Pretest
- 06.01 Using the Coordinates
- 06.02 Slope
- 06.03 Module Six Quiz
- 06.04 Coordinate Applications
- 06.05 Module Six Activity
- 06.06 Module Six Review and Practice Exam
- 06.07 Module Six Discussion-Based Assessment
- 06.08 Module Six Exam

**Module Seven**

- 07.00 Module Seven Checklist and Pretest

- 07.01 Solving Right Triangles
- 07.02 Trigonometric Ratios
- 07.03 Module Seven Quiz
- 07.04 Applying Trigonometric Ratios
- 07.05 Module Seven Activity
- 07.06 Module Seven Review and Practice Exam
- 07.07 Module Seven Discussion-Based Assessment
- 07.08 Module Seven Exam

**Module Eight**

- 08.00 Module Eight Checklist and Pretest
- 08.01 Formulas
- 08.02 Applications of Volume
- 08.03 Module Eight Quiz
- 08.04 Density
- 08.05 3-D Figures
- 08.06 Module Eight Activity
- 08.07 Module Eight Review and Practice Exam
- 08.08 Module Eight Discussion-Based Assessment
- 08.09 Module Eight Exam

**Module Nine**

- 09.00 Module Nine Checklist and Pretest
- 09.01 Properties of a Circle
- 09.02 Inscribed and Circumscribed Circles
- 09.03 Module Nine Quiz
- 09.04 Applications of Circles
- 09.05 Module Nine Activity
- 09.06 Module Nine Review and Practice Exam
- 09.07 Module Nine Discussion-Based Assessment
- 09.08 Module Nine Exam
- 09.09 Segment Two Reflection Checkpoint
- 09.10 End of Course Information
- 09.11 Segment Two Practice Exam
- 09.12 Segment Two Exam

**Course Assessment and Participation Requirements:**

To achieve success, students are expected to submit work in each course weekly. Students can learn at their own pace; however, “any pace” still means that students must make progress in the course every week. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers; the minimum requirement is monthly. When teachers, students, and parents work together, students are successful.