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.