**Geometry**

**East Ridge High School**

**2017 - 2018**

**Instructor:** Name: Mr. McGrath

Telephone: 423-867-6200 ext. 267

Email: mcgrath\_m@hcde.org (preferred method of contact)

Available after school: Mondays from 2:25 – 3:25 or by appointments only. Confirm date and time before appointment.

**Course Description**

Geometry is a semester long course. This course consists of a study of right triangle and trigonometric functions. Students will also study area formulas. Finally, and most importantly, students will practice explaining their reasoning process, justifying their methods and solutions, and working with each other to problem solve.

There are many websites that can help students better understand what we learn in class. I encourage students to look up websites and videos if they do not understand something. The website that I have found to be most helpful is khanacademy.org.

**Course Policies**

Makeup Work:

If a student is absent, it is the responsibility of that student to meet with me and collect all work from the missed day(s). Absent students **must** make up all missed work.

It is also the responsibility of the absent student’s seat partner to collect work and take good notes for the absent student.

Late Work:

Late assignments will be reduced by a whole letter grade for every day they are late.

Behavior:

If it promotes education, do it. If it does not promote education, do not do it.

Cell Phone Policy:

Cell phones are not allowed to be used in the classroom for any reason. If I see a cell phone in class, I will confiscate it.

Necessary Supplies:

Composition book, college ruled notebook (at least 200 sheets), index cards (at least 100), dry erase markers (at least 2), pencils (at least 1)

**Assessments and Grading**

Grading Scale:

93 – 100 A Excellent

85 – 92 B Good

75 – 84 C Average

70 – 74 D Below Average

0 – 69 F Failure

Your grade will be calculated as shown below:

Grading formula for each 9-week’s grade:

* Teaching tasks other than tests 50%
  + Openers 15%
  + Homework 15%
  + Participation 20%
* Assessments and Tests 50%
  + Quizzes and unit tests

**Grade Calculations for high school courses with a state-level test:**

* 1st Nine Weeks – 42.5%
* 2nd Nine Weeks – 42.5%
* Exam (EOC) – 15%

**Course Topics and Schedule for Full-Year Course**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Dates** | **Topic** | **UbD** |
| 1 | 8/10 – 8/11 | Class Introduction |  |
| 2 | 8/14 – 8/18 | 1-1 Basic Geometric Figures  1-2 More Geometric Figures  29-1 Constructions with Segments and Angles  29-2 Constructions with Parallel and Perpendicular Lines  4-1 Segments and Midpoints  4-2 Angles and Angle Bisectors | 1 |
| 3 | 8/21 – 8/25 | 5-1 Distance on the Coordinate Plane  5-2 Midpoint on the Coordinate Plane  8-1 Slopes of Parallel and Perpendicular Lines  8-2 Writing Equations  26-4 Points Along a Line Segment | 1 |
| 4 | 8/28 – 9/1 | Unit 1 Test  3-1 Geometric Definitions and Two-Column Proofs  3-2 Conditional Statements  3-3 Converse, Inverse, and Contrapositive  6-1 Justifying Statements  6-2 Two-Column Geometric Proofs | 2 |
| 5 | 9/5 – 9/8 | 7-1 Parallel Lines and Angle Relationships  7-2 Proving Lines are Parallel  7-3 Perpendicular Lines  Unit 2 Test | 2 |
| 6 | 9/11 – 9/15 | 9-1 Transformations  9-2 Translations  9-3 Reflections  9-4 Rotations  10-1 Compositions of Transformations  10-2 Congruence  11-1 Congruent Triangles  11-2 Congruence Criteria  11-3 Proving and Applying the Congruence Criteria | 3 |
| 7 | 9/18 – 9/22 | 11-4 Extending the Congruence Criteria  Unit 3 Test  13-1 Congruence Criteria  13-2 Isosceles Triangles  31-1 Sum of the Measures of the Interior Angles of a Polygon  31-2 Regular Polygons and Exterior Angles | 3, 4 |
| 8 | 9/25 – 9/29 | 14-2 Medians of a Triangle  15-1 Kites and Triangle Midsegments  15-2 Trapezoids  15-3 Parallelograms  15-4 Rectangles, Rhombuses, and Squares  16-1 Proving a Quadrilateral is a Parallelogram | 4 |
| 9 | 10/2 – 10/5  **(End of 1st quarter)** | 16-2 Proving a Quadrilateral is a Rectangle  16-3 Proving a Quadrilateral is a Rhombus  16-4 Proving a Quadrilateral is a Square  Unit 4 Test | 4 |
|  | 10/9 – 10/13 | **Fall Break** |  |
| 10 | 10/16 – 10/20 | 17-1 Dilations  17-2 Similarity Transformations  17-3 Properties of Similar Figures  18-1 Similarity Criteria  18-2 Using Similarity Criteria  18-3 Triangle Proportionality Theorem  19-1 The Right Triangle Altitude Theorem  19-2 The Geometric Mean | 5 |
| 11 | 10/23 – 10/27 | 20-1 Pythagorean Theorem  20-2 Converse of the Pythagorean Theorem  Unit 5 Test  21-1 45-45-90 Triangles  21-2 30-60-90 Triangles  22-1 Similar Right Triangles  22-2 Trigonometric Ratios | 5, 6 |
| 12 | 10/30 – 11/3 | 22-3 Using Trigonometric Ratios  22-4 Solving Right Triangles  23-1 The Law of Sines  23-3 The Law of Cosines  23-4 Solving Triangles  Unit 6 Test | 6 |
| 13 | 11/6 – 11/10 | 14-3 Perpendicular Bisectors and Angle Bisectors of a Triangle  29-3 Constructions with Circles  24-1 Circle Basics  24-2 Theorems About Chords  24-3 Tangent Segments  25-1 Arcs and Central Angles  25-2 Inscribed Angles  25-3 Angles Formed by Chords  25-4 Angles Formed by Tangents and Secants | 7 |
| 14 | 11/13 – 11/17 | 27-1 Circles on the Coordinate Plane  32-1 Circumference and Area of a Circle  32-2 Sectors and Arcs  32-3 Circles and Similarity  Unit 7 Test | 7 |
| 15 | 11/20 – 11/21  (Thanksgiving) | 30-1 Areas of Rectangles and Parallelograms  30-2 Angles of Triangles  30-3 Areas of Rhombuses and Trapezoids | 8 |
| 16 | 11/27 – 12/1 | 31-3 Area and Rhombuses and Trapezoids  42-2 Geometric Probability  33-1 Prisms and Pyramids  33-2 Cylinders and Cones  34-1 Surface Area of Prisms and Cylinders  34-2 Volume of Prisms and Cylinders  35-1 Surface Area of Pyramids and Cones  35-2 Volume of Pyramids and Cones | 8 |
| 17 | 12/4 – 12/8 | 35-3 Density  36-1 Surface Area of Spheres  36-2 Volume of Spheres  37-1 Cubes and Spheres  37-2 Pyramids and Cylinders  Unit 8 Test | 8 |
| 18 | 12/11 – 12/15  **(End of Semester 1)** | Review for EOC |  |
| 19 | 12/18 – 12/19  **(Exams)** |  |  |