**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**

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| --- | --- | --- | --- |
| **Week** | **Dates** | **Topic** | **UbD** |
| 1 | 8/10 – 8/11 | Class Introduction |  |
| 2 | 8/14 – 8/18 | 1-1 Basic Geometric Figures1-2 More Geometric Figures29-1 Constructions with Segments and Angles29-2 Constructions with Parallel and Perpendicular Lines4-1 Segments and Midpoints4-2 Angles and Angle Bisectors | 1 |
| 3 | 8/21 – 8/25 | 5-1 Distance on the Coordinate Plane5-2 Midpoint on the Coordinate Plane8-1 Slopes of Parallel and Perpendicular Lines8-2 Writing Equations26-4 Points Along a Line Segment | 1 |
| 4 | 8/28 – 9/1 | Unit 1 Test3-1 Geometric Definitions and Two-Column Proofs3-2 Conditional Statements3-3 Converse, Inverse, and Contrapositive6-1 Justifying Statements6-2 Two-Column Geometric Proofs | 2 |
| 5 | 9/5 – 9/8 | 7-1 Parallel Lines and Angle Relationships7-2 Proving Lines are Parallel7-3 Perpendicular LinesUnit 2 Test | 2 |
| 6 | 9/11 – 9/15 | 9-1 Transformations9-2 Translations9-3 Reflections9-4 Rotations10-1 Compositions of Transformations10-2 Congruence11-1 Congruent Triangles11-2 Congruence Criteria11-3 Proving and Applying the Congruence Criteria | 3 |
| 7 | 9/18 – 9/22 | 11-4 Extending the Congruence CriteriaUnit 3 Test13-1 Congruence Criteria13-2 Isosceles Triangles31-1 Sum of the Measures of the Interior Angles of a Polygon31-2 Regular Polygons and Exterior Angles | 3, 4 |
| 8 | 9/25 – 9/29 | 14-2 Medians of a Triangle15-1 Kites and Triangle Midsegments15-2 Trapezoids15-3 Parallelograms15-4 Rectangles, Rhombuses, and Squares16-1 Proving a Quadrilateral is a Parallelogram | 4 |
| 9 |  10/2 – 10/5**(End of 1st quarter)** | 16-2 Proving a Quadrilateral is a Rectangle16-3 Proving a Quadrilateral is a Rhombus16-4 Proving a Quadrilateral is a SquareUnit 4 Test | 4 |
|  | 10/9 – 10/13 | **Fall Break** |  |
| 10 | 10/16 – 10/20 | 17-1 Dilations17-2 Similarity Transformations17-3 Properties of Similar Figures18-1 Similarity Criteria18-2 Using Similarity Criteria18-3 Triangle Proportionality Theorem19-1 The Right Triangle Altitude Theorem19-2 The Geometric Mean | 5 |
| 11 | 10/23 – 10/27 | 20-1 Pythagorean Theorem20-2 Converse of the Pythagorean TheoremUnit 5 Test21-1 45-45-90 Triangles21-2 30-60-90 Triangles22-1 Similar Right Triangles22-2 Trigonometric Ratios | 5, 6 |
| 12 | 10/30 – 11/3 | 22-3 Using Trigonometric Ratios22-4 Solving Right Triangles23-1 The Law of Sines23-3 The Law of Cosines23-4 Solving TrianglesUnit 6 Test | 6 |
| 13 | 11/6 – 11/10 | 14-3 Perpendicular Bisectors and Angle Bisectors of a Triangle29-3 Constructions with Circles24-1 Circle Basics24-2 Theorems About Chords24-3 Tangent Segments25-1 Arcs and Central Angles25-2 Inscribed Angles25-3 Angles Formed by Chords25-4 Angles Formed by Tangents and Secants | 7 |
| 14 | 11/13 – 11/17 | 27-1 Circles on the Coordinate Plane32-1 Circumference and Area of a Circle32-2 Sectors and Arcs32-3 Circles and SimilarityUnit 7 Test | 7 |
| 15 |  11/20 – 11/21(Thanksgiving) | 30-1 Areas of Rectangles and Parallelograms30-2 Angles of Triangles30-3 Areas of Rhombuses and Trapezoids | 8 |
| 16 | 11/27 – 12/1 | 31-3 Area and Rhombuses and Trapezoids42-2 Geometric Probability33-1 Prisms and Pyramids33-2 Cylinders and Cones34-1 Surface Area of Prisms and Cylinders34-2 Volume of Prisms and Cylinders35-1 Surface Area of Pyramids and Cones35-2 Volume of Pyramids and Cones | 8 |
| 17 | 12/4 – 12/8 | 35-3 Density36-1 Surface Area of Spheres36-2 Volume of Spheres37-1 Cubes and Spheres37-2 Pyramids and CylindersUnit 8 Test | 8 |
| 18 |  12/11 – 12/15**(End of Semester 1)** | Review for EOC |  |
| 19 | 12/18 – 12/19**(Exams)** |  |  |