**Geometry Fundamentals I/II Course Targets:**

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| GF I | GF II | Target  **Students should be able to demonstrate the following:** |
|  |  | I can find patterns visually and numerically. |
|  |  | I can create an argument using hypothesis, conclusion, converse and counterexample statements. |
|  |  | I can make use of inductive reasoning to create true statements. |
|  |  | I can specifically define points, lines and planes. |
|  |  | I can define segments, their measurement, and add them accurately. |
|  |  | I can define the measurement and addition of angles. |
|  |  | I can create and explain segment bisectors. |
|  |  | I can calculate & locate midpoint on the coordinate plane. |
|  |  | I can construct and explain angle bisectors. |
|  |  | I can identify and define complementary & supplementary angles. |
|  |  | I can identify and define vertical angles. |
|  |  | I can identify angles formed by transversals and illustrate the angle relationships for parallel lines, proving lines parallel. |
|  |  | I can model graphing of parallel lines and define the equations of lines. |
|  |  | I can calculate the slopes of parallel and perpendicular lines. |
|  |  | I can distinguish the classification of triangles by using angle measures. |
|  |  | I can, given a triangle, model translation, reflection and rotation. |
|  |  | I can define and explain the properties of a Right Triangle. |
|  |  | I can identify and define Isosceles triangles. |
|  |  | I can explain and demonstrate the exterior angle theorem. |
|  |  | I can demonstrate the Pythagorean Theorem using the formula a^2+b^2+c^2. |
|  |  | I can identify and define Special Polygons such as:   1. Parallelograms 2. Rectangles 3. Squares 4. Rhombi 5. Isosceles Trapezoid |
|  |  | I can accurately calculate ratios and proportions. |
|  |  | I can demonstrate simplifying of fractions and equations. |
|  |  | I can identify and define similar polygons. |
|  |  | I can identify and define s similar triangles. |
|  |  | I can model dilations. |
|  |  | I can identify and define Special Triangles such as:   1. 45-45-90 triangles 2. 30-60-90 triangles |
|  |  | I can make use of SOHCAHTOA in:   1. Solving for lengths 2. Solving for angles (inverse) |
|  |  | I can calculate the area of the following polygons:   1. Triangles 2. Rectangles 3. Parallelograms 4. Rhombi 5. Trapezoids 6. Circles |
|  |  | I can calculate the Surface Area and Volume of the following polygons:  a. Prisms  b. Cylinder  c. Pyramids  d. Cones  e. Spheres |