

New York State Student Learning Objective: Geometry (Honors)

All SLOs MUST include the following basic components:

Population	<p><i>These are the students assigned to the course section(s) in this SLO - all students who are assigned to the course section(s) must be included in the SLO. (Full class rosters of all students must be provided for all included course sections.)</i></p> <p>This SLO covers 22 students enrolled in Honors Geometry, which culminates in the New York State Geometry Regents Exam. Please see attached student roster.</p>
Learning Content	<p><i>What is being taught over the instructional period covered? Common Core/National/State standards? Will this goal apply to all standards applicable to a course or just to specific priority standards?</i></p> <p>In accordance with the New York State P-12 Common Core Learning Standards for Mathematics in Geometry and district priorities regarding proficiency in mathematical concepts, the learning content for this course, inclusive of advanced designation clusters, will allow students to develop the following essential skills:</p> <p>Congruence:</p> <ul style="list-style-type: none"> • G-CO.1-5: Students will experiment with transformations in the plane • G-CO.6-8: Students will understand congruence in terms of rigid motions • G-CO.9-11: Students will be able to prove geometric theorems • G-CO.12-13: Students will make geometric constructions <p>Similarity, Right Triangles and Trigonometry:</p> <ul style="list-style-type: none"> • G-SRT.1-3: Students will understand similarity in terms of similarity transformations

Comment [SED1]: The template used to identify individual students included in the SLO can also be used to capture other relevant and necessary data such as baseline performance, targets, and summative performance. By consolidating this information in one location a teacher and/or reviewer will be provided with a comprehensive look at student performance in relation to the SLO.

Comment [SED2]: The inclusion of performance indicators associated with selected learning standards is a powerful way to strengthen the alignment between learning content, evidence/assessments, and instruction.

	<ul style="list-style-type: none"> • G-SRT.4-5: Students will prove theorems involving similarity • G-SRT.6-8: Students will define trigonometric ratios and solve problems involving right triangles • G-SRT.9-11: Students will apply trigonometry to general triangles <p>Circles:</p> <ul style="list-style-type: none"> • G-C.1-4: Students will understand and apply theorems about circles • G-C.5: Students will learn to find arc lengths and areas of sectors of circles <p>Expressing Geometric Principles with Equations:</p> <ul style="list-style-type: none"> • G-GPE.1-3: Students will translate between the geometric description and the equation for a conic section • G-GPE.4-7: Students will use coordinates to prove simple geometric theorems algebraically <p>Geometric Measurement and Dimension:</p> <ul style="list-style-type: none"> • G-GMD.1-3: Students will be able to explain volume formulas and use them to solve problems • G-GMD.4: Students will learn to visualize relationships between two dimensional and three-dimensional objects <p>Modeling with Geometry:</p> <ul style="list-style-type: none"> • G-MG.1-3: Students will apply geometric concepts in modeling situations
<p>Interval of Instructional Time</p>	<p><i>What is the instructional period covered (if not a year, rationale for semester/quarter/etc)?</i></p> <p>This Student Learning Objective will encompass the entire 2013-14 academic year, running from September 2013 to June 2014. <u>Geometry classes will meet for 40 minutes per day, 5 days per week.</u></p>

Comment [SED3]: By indicating how often the course meets and the duration of a class period the teacher and/or reviewer gains additional insight into the context in which this SLO takes place.

Evidence	<p><i>What specific assessment(s) will be used to measure this goal? The assessment must align to the learning content of the course.</i></p> <p>In order for students to be eligible for an Advanced Regents Diploma, students must pass the New York State Geometry Regents Exam. Tests will be scored by teachers without a vested interest in the outcome of the New York State Geometry Regents exam.</p>																				
Baseline	<p><i>What is the starting level of students' knowledge of the learning content at the beginning of the instructional period?</i></p> <p>The results of the past three years of Geometry Regents Exams have been analyzed for those students who were enrolled in Geometry Honors. The average mastery rate over this three year span, in combination with the current student cohort's performance on the 2012-13 Algebra 2 Regents exam, has been utilized to help create the HEDI chart and establish rigorous performance targets for all students. Please see attached student roster for further information.</p>																				
Target(s)	<p><i>What is the expected outcome (target) of students' level of knowledge of the learning content at the end of the instructional period?</i></p> <p>80% of students will reach mastery level (a score of 85 or greater) on the New York State Geometry Regents exam.</p>																				
HEDI Scoring (mastery)	<p><i>How will evaluators determine what range of student performance "meets" the goal (effective) versus "well-below" (ineffective), "below" (developing), and "well-above" (highly effective)?</i></p>																				
	HIGHLY EFFECTIVE			EFFECTIVE									DEVELOPING						INEFFECTIVE		
	20	19	18	17	16	15	14	<u>13</u>	12	11	10	9	8	7	6	5	4	3	2	1	0
95-100	91-94	85-90	84	83	82	81	80	78-79	76-77	74-75	70-73	64-69	57-63	50-56	43-49	37-42	30-36	21-29	11-20	0-10	

Comment [SED4]: [The Student Learning Objectives \(SLO\) Results Analysis webinar](#) will enable district leaders, principals and teachers to consider systems for scoring summative assessments used with SLOs.

Comment [SED5]: Multiple sources of baseline data provide a more robust picture of students' current academic ability, thus allowing for more precise targets to be set for performance at the end of the instructional period. For more information about the use of historical data to establish baselines please reference the [Student Learning Objectives 103 Webinar](#).

Comment [SED6]: Mastery targets may be appropriate for students included in the SLO that have demonstrated high levels of ability on baseline measures or through prior coursework.

Rationale

Describe the reasoning behind the choices regarding learning content, evidence, and target and how they will be used together to prepare students for future growth and development in subsequent grades/courses, as well as college and career readiness.

As indicated above, the targets and HEDI scale for this SLO have been formulated in view of the high level of mathematical aptitude among the students enrolled in the course. The historical set of multiple baseline data points provides a rational basis upon which to establish rigorous student performance targets and demonstrates that the vast majority of enrolled students should meet the requirements of the Common Core Learning Standards and achieve mastery level (85 or greater) on the New York State Geometry Regents exam.

Students are placed in an appropriate level Geometry class based upon previously completed coursework, teacher recommendations, guidance counselor recommendations, and CSE's (if necessary). All students will receive high quality instruction using curriculum aligned with the Common Core Learning Standards. The curriculum guides in use have been approved by building and central administrations for both rigor and comparability across classrooms.

The students' daily class work will help to inform the pace and structure of instruction. The Geometry curriculum builds upon the algebraic skills and requires the application of those skills. Students will gain higher levels of critical thinking that accurately reflects the mathematical skills needed for future success. The students will be required to transfer and apply the algebraic skills to new situations using the Common Core-aligned geometry learning content. Extra support and guidance are regularly available to all students through study hall review sessions and after school support sessions. Mastery of the algebraic skills and their application to the geometry content will assure student success on the Geometry Regents and help prepare students for college-level coursework. The derivation and subsequent use of definitions, postulates, and theorems will support student success at this level and the next and make a substantial contribution to students' college and career readiness.

Comment [SED7]: The SLO rationale is meant to thread the various components of the SLO together in a comprehensive fashion, becoming a guide to instructional practice and evidence based instructional models. Decisions made between selected content, baseline performance, and target setting should not only be aligned with each other, but also be in direct connection to the instructional practice and decisions made in regards to the course.

Comment [SED8]: Strong rationales that clearly describe the alignment of course content, learning standards and evidence used to gauge student progress provide both teacher and reviewer with a deeper understanding of how day-to-day learning connects with broader teacher-, school-, and district-level objectives.

Comment [SED9]: A direct connection to the knowledge and skills needed in college-level coursework indicates a backwards-mapping of student performance. This vertical alignment strengthens the aim of ensuring students are prepared for college and career.

Student	2012-13 NYS Algebra 2 Regents Score	Target Score	2012-13 NYS Geometry Regents Score	Target Met
XXXXX	92	85	90	Y
XXXXX	90	85	95	Y
XXXXX	88	85	83	N
XXXXX	97	85	94	Y
XXXXX	91	85	88	Y
XXXXX	91	85	91	Y
XXXXX	93	85	87	Y
XXXXX	85	85	87	Y
XXXXX	89	85	92	Y
XXXXX	94	85	85	Y
XXXXX	90	85	88	Y
XXXXX	87	85	85	Y
XXXXX	99	85	96	Y
XXXXX	90	85	89	Y
XXXXX	85	85	86	Y
XXXXX	92	85	91	Y
XXXXX	88	85	80	N
XXXXX	96	85	90	Y
XXXXX	91	85	85	Y
XXXXX	89	85	86	Y
XXXXX	90	85	93	Y
XXXXX	96	85	90	Y