



Course Overview

High School | Honors Geometry - Last Updated on April 2, 2025

DESCRIPTION

K-12 Content Area | Mission & Philosophy Statement

- With confidence and perseverance, young people can tackle complex and novel mathematical challenges, becoming skilled problem solvers who take ownership over their learning process.
- Young people possess the ability to reason mathematically, make conjectures, solve problems and build understanding through effective dialogue and collaboration.
- Learners exhibit critical inquiry through the deliberate asking of questions and the integration of conceptual understanding, reasoning abilities, and procedural fluency.
- Strategically selecting materials, technology, and other resources support mathematical learning and aid in achieving mathematical goals. (NCTM, 2024)

Course Description

The Honors Geometry course is intended for the student who has the mathematical ability to assimilate and apply new material at a faster pace than the average college preparatory student. Students will apply deductive and inductive reasoning to the development of proofs and the solving of problems. Basic geometric concepts such as points and lines, parallelism, similarity, congruency, polygons, right triangles, basic trigonometric concepts, coordinate geometry, an introduction to solid geometry, and circles will be studied in depth and applied to problem-solving situations.

STANDARDS

Pennsylvania - High School - Keystone Geometry

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|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| G.1.1.1.1 | G.1.1.1.2 | G.1.1.1.3 | G.1.1.1.4 | G.1.2.1.1 | G.1.2.1.2 | G.1.2.1.3 | G.1.2.1.4 |
| G.1.2.1.5 | G.1.3.1.1 | G.1.3.1.2 | G.1.3.2.1 | G.2.1.1.1 | G.2.1.1.2 | G.2.1.2.1 | G.2.1.2.2 |
| G.2.1.2.3 | G.2.2.1.1 | G.2.2.1.2 | G.2.2.2.1 | G.2.2.2.2 | G.2.2.2.3 | G.2.2.2.4 | G.2.2.2.5 |
| G.2.2.3.1 | G.2.2.4.1 | G.2.3.1.1 | G.2.3.1.2 | G.2.3.1.3 | G.2.3.2.1 | | |

COURSE OBJECTIVES

Specific objectives for this course are aligned to the Pennsylvania Core Standards for Mathematics and the Common Core State Standards for Mathematics.



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ASSESSMENT TYPES

The following assessment types will be used during the course:

- Diagnostic Assessments
- Formative Assessments
- Summative Assessments

SUGGESTED METHODS OF INSTRUCTION

Below is a list of suggested strategies for high-quality instruction in Mathematics:

- Instructional components outlined in the *Framework for Teaching* by Charlotte Danielson
- Teacher-Centered Instruction
- Inquiry-Based Learning
- Small Group Instruction
- Cooperative Learning
- Student-Centered/Constructivist Approach
- Project-Based Learning
- Flipped Classroom

RESOURCES

District Approved Program Resources	District Approved Supplemental Resources	District Approved Technology Resources
<p><i>Geometry</i>. Prentice Hall (2011)</p>	<p>TI-Calculators 84Central Calculator Activities http://education.ti.com/en/84activitycentral/us/geometry</p> <p>Nearpod https://nearpod.com/</p> <p>Desmos https://www.desmos.com/</p> <p>Khanacademy https://www.khanacademy.org/math/get-ready-for-geometry https://www.khanacademy.org/math/geometry</p> <p>ixL Online Learning Platform https://www.ixl.com/math/geometry</p> <p><i>Geometry</i>. Prentice Hall (2011) Digital Resources</p> <p>Geogebra: Interactive Algebra Resources https://www.geogebra.org/m/fjtzi3qn https://www.geogebra.org/math/geometry?lang=en</p> <p>Teacher created materials</p>	<ul style="list-style-type: none"> • TI30X Scientific Calculators • District Approved Technology