KENOSHA UNIFIED SCHOOL DISTRICT NO. 1
CURRICULUM AND INSTRUCTIONAL SERVICES

HIGH SCHOOL COURSE SYLLABUS

MATHEMATICS DEPARTMENT

Geometry Honors (322021 & 322022)

Number of Credits: 1

Prerequisites
Successful completion of Algebra 1 (312011 & 312012) and teacher permission

Course Description
This course is a rigorous study of plane and solid geometry. It includes precise definitions, theorems, and postulates relating to plane and solid figures. This course also includes direct, indirect, and auxiliary proofs relating to these figures. Students experience extensive proofs involving both deductive and inductive reasoning and continue to develop their algebra skills. They complete challenging problems and extend their study of right triangle trigonometry and apply these concepts to deeper applications.

Relevance
This course sharpens the student's thinking skills by teaching the process of logical reasoning and deductive thinking. In addition to preparation for many careers, honors geometry will prepare students for the rigor of Algebra 2/trig—honors.

Course Standards

A. Mathematica processes	C. Geometry	E. Statistics and probability
B. Number relationships	D. Measurement	F. Algebraic relationships

Most essential benchmarks may be viewed at: www.kusd.edu.

Lifelong Learning Standards

• Knowledgeable person	• Effective communicator	• Quality producer
• Complex thinker	• Self-directed learner	• Contributing citizen

Lifelong learning benchmarks may be viewed at: www.kusd.edu.

Course Outline
Semester 1

- Essentials of Geometry: Describing and measuring geometric figures, understanding equality and congruence
- Reasoning and Proof: Using inductive and deductive reasoning, understanding geometric relationships in diagrams, writing proofs of geometric relationships
- Parallel and Perpendicular Lines: Using properties of parallel and perpendicular lines, proving relationships using angle measures, making connections to lines in algebra

- Congruent Triangles: Classifying triangles by sides and angles, proving that triangles are congruent
- Relationships with Triangles: Using properties of special segments in triangles, using triangle inequalities to determine what triangles are possible, extending methods for justifying and proving relationships

Semester 2

- Similarity: Using ratios and proportions to solve geometry problems, showing that triangles are similar, using indirect measurement and similarity
- Right Triangles and Trigonometry: Using the Pythagorean Theorem and its converse, using special relationships in right triangles, using trigonometric ratios to solve right triangles
- Quadrilaterals: Using angle relationships in polygons, using properties of parallelograms, classifying quadrilaterals by their properties
- Properties of Circles: Using properties of segments that intersect circles, applying angle relationships in circles
- Measuring Length and Area: Using area formulas for polygons; relating length, perimeter, and area ratios in similar polygons; comparing measures for parts of circles and whole circles
- Surface Area and Solids: Exploring solids and their properties, solving problems using surface area and volume, connecting similarity to solids

Board-Approved Instructional Materials

- Larson, Boswell, et al., *Geometry*, McDougal Littell, 2007 (ISBN 0-618-59540-6)
- Online Resources: www.classzone.com/math_hs_all.cfm (Choose Geometry, 2007)
- Online version of the student text linked to animated interactive activities is available with registration (registration information provided by math teacher)

Methods of Assessment

Final exams should be cumulative in nature, emphasizing the most essential benchmarks for the course. Results of the final exam represent 20 percent of the final grade, but this single measure ***may not*** drop a student's grade by more than one letter grade. In courses that rely heavily on a major project, performance exhibition, etc., the project should be divided into stages or components and each of those should be graded separately, providing students with frequent and specific feedback.

Parents as Partners

Family involvement is an essential element for a student's success in mathematics. Be positive and support homework, don't do it for them. Think of yourself as a guide rather than your child's teacher. You can help by asking questions and listening. You may also help by visiting the online resources and encouraging your child to take advantage of the tutorials, interactive activities, and other online resources listed above.

Board-Approved Grading Scale

Excerpts taken from School Board Rule 6452

GRADING SCALE

A+=98-100 percent	B+=86-89 percent	C+=76-79 percent	D+=66-69 percent
A=93-97 percent	B=83-85 percent	C=73-75 percent	D=63-65 percent
A-=90-92 percent	B-=80-82 percent	C-=70-72 percent	D-=60-62 percent
			F=0-59 percent

MAKE-UP WORK

Students submitting work up to ten school days late without prior approval may receive up to two grades lower on the work than they would have received if the work had been submitted on time (i.e., B+ lowered to a D+). Student work submitted after ten school days without prior approval shall not be accepted for credit and shall be recorded with a score of zero.

Upon returning to school after an absence, a student has the responsibility within the number of days equal to the length of the absence or suspension to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. A truant student has the responsibility on the first day he or she returns to the course/class to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. Lower grades may not be given for late work due to excused absences, suspension, or truancy unless the work is submitted later than agreed upon deadlines.

See Rule 6452 in its entirety at: www.kusd.edu.