Decatur Public Schools
Educating for Success

Course Description:

Geometry is a course utilizing an intuitive approach, employing non-rigorous proofs and emphasizing practical applications. Topics to be covered first semester include introduction to proofs, parallel lines and planes, congruent triangles, angle measurements and right triangles. Topics to be covered second semester include quadrilaterals, similar triangles, polygons, area and volume, right triangle trigonometry, and circles.

Prerequisite: Successful completion of Algebra I or Honors Algebra I or with consent of the instructor.

Credit: 0.5 credit per semester

Course Units:

Semester 1
Basics of Geometry—3 weeks
Segments and Angles—3 weeks
Parallel and Perpendicular Lines—3 weeks
Triangle Relationships—3 weeks
Congruent Triangles—3 weeks

Semester 2
Quadrilaterals—3 weeks
Ratios and Proportions—3 weeks
Trigonometry—3 weeks
Perimeter and Area—3 weeks
Surface Area and Volume—3 weeks
Circles—3 weeks
Statistics and Probability—3 weeks

Required Materials:
Text—*Geometry: Concepts and Skills* from McDougal Littell, 2005 edition
MacBook

Folder or Binder
Paper or Notebook
Pencils and Pen
Scientific Calculator (recommended; TI XIIS preferred)

Grading Policy:

Category Weights: Your total grade is NOT based on total points. The following categories will be applied to the grade book to determine your final grade:

30% - Classwork and Quizzes
20% - Homework
50% - Assessments and Projects

Grading Scale
100-90%	A
89-80%	B
79-70%	C
69-60%	D
59% >	F

Learning Standards:

Congruence	**HSG.CO.A.1-5**—Experiment with transformations in the plane. **HSG.CO.B.6-8**—Understand congruence in terms of rigid motions. **HSG.CO.C.9-11**—Prove geometric theorems. **HSG.CO.D.12-13**—Make geometric constructions.
Similarity, Right Triangles, & Trigonometry	**HSG.SRT.A.1-3**—Understand similarity in terms of similarity transformations. **HSG.SRT.B.4-5**—Prove theorems involving similarity. **HSG.SRT.C.6-8**—Define trigonometric ratios and solve problems involving right triangles. **HSG.SRT.D.9-11**—Apply trigonometry to general triangles.
Modeling with Geometry	**HSG.MG.A.1-3**—Apply geometric concepts in modeling situations.
Geometric Measurement & Dimension	**HSG.GMD.A.1-3**—Explain volume formulas and use them to solve problems. **HSG.CO.B.4**—Visualize relationships between two-dimensional and three-dimensional objects.
Expressing Geometric Properties and Equations	**HSG.GPE.A.1-2**—Translate between the geometric description and the equation for a conic section. **HSG.GPE.B.4-7**—Use coordinates to prove simple geometric theorems algebraically.
Circles	**HSG.C.A.1-4**—Understand and apply theorems about circles. **HSG.C.B.5**—Find arc lengths and areas of sectors of circles.
Conditional Probability & the Rules of Probability	**HSS.CP.A.1-5**—Understand independence and conditional probability and use them to interpret data. **HSS.CP.B.6-9**—Use the rules of probability to compute probabilities of compound events in a uniform probability model.

Using Probability to Make Decisions	**HSS.MD.B.6-7**—Use probability to evaluate outcomes of decisions.

For a complete list of the mathematical common core standards, please visit:
http://www.corestandards.org/math

For a complete list of the eight mathematical practices, please visit:
http://www.corestandards.org/math/practice

Behavior Expectations:

Please refer to DPS61 Handbook and Code of Conduct.

Original Work, Cheating, Plagiarism, and Paraphrasing Policy :

Please refer to DPS61 Handbook and Code of Conduct.

I have read and understand the attached syllabus and course guidelines for (insert course name and school name here).

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Student Name (print)   Signature

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Parent/Guardian Signature