EAGLES LANDING HIGH SCHOOL CCGPS MATH I/COORDINATE ALGEBRA SYLLABUS (2013-2014)

COURSE DESCRIPTION: CCGPS Math I/Coordinate Algebra is the first required mathematics class under the Common Core Georgia Performance Standards where students will learn math in context and experience skills interwoven with applications. The goal of the class is to prepare for Math II/Analytic Geometry, Math III/Advanced Algebra, and a fourth year that will be either Math IV/Pre-Calculus, Advanced Decision Making, or Math of Finance. It is essential that each student works hard in order to fully understand and master all of the concepts presented. The textbook will be utilized as a resource along with the state frameworks as well as teacher generated materials. The tests in this class will be made to assess the student's understanding of the material and will be graded based on mastery of the standards. Student's test grades will be recorded and coded based on the standards. Below you will find the general guideline for the course divided by semester. The time allotted for each unit is approximate only.

TEXTBOOK: Coordinate Algebra (1st ed. 2012). Pittsburgh, PA: Carnegie Learning.

FIRST SEMESTER (ends at Winter Break)

TOPIC	TIME
Unit 1: Relationship Between Quantities	3 weeks
Reason quantitatively and use units to solve problems (N.Q.1, N.Q.2, N.Q.3)	
Interpret the structure of expressions (A.SSE.1, A.SSE.1a, A.SSE.1b)	
Create equations that describe numbers or relationships (A.CED.1, A.CED.2, A.CED.3, A.CED.4)	
Unit 2: Reasoning With Equations and Inequalities	5 weeks
Understand solving equations as a process of reasoning and explain the reasoning (A.REI.1)	
Solve equations and inequalities in one variable (A.REI.3)	
Solve systems of equations (A.REI.5, A.REI.6)	
Represent and solve equations and inequalities graphically (A.REI.12)	
Unit 3: Linear and Exponential Functions	8 weeks
Represent and solve equations and inequalities graphically (A.REI.10, A.REI.11)	
Understand the concept of a function and use function notation (F.IF.1, F.IF.2, F.IF.3)	
Interpret functions that arise in applications in terms of the context (F.IF.4, F.IF.5, F.IF.6)	
Analyze functions using different representations (F.IF.7, F.IF.7a, F.IF.7e, F.IF.9)	
Build a function that models a relationship between two quantities (F.BF.1, F.BF.1a, F.BF.1b, F.BF.2)	
Build new functions from existing functions (F.BF.3)	
Construct and compare linear & exponential models and solve problems (F.LE.1, F.LE.1a, F.LE.1b, F.LE.1c, F.LE.2, F.LE.3)	
Interpret expressions for functions in terms of the situation they model (F.LE.5)	

SECOND SEMESTER (ends at Summer Break)

TOPIC	TIME
Unit 4: Describing Data	5 weeks
Summarize, represent, and interpret data on a single count or measurement variable (S.ID.1, S.ID.2, S.ID.3)	
Summarize, represent, and interpret data on two categorical and quantitative variables (S.ID.5, S.ID.6, S.ID.6a,b,c)	
Interpret linear models (S.ID.7, S.ID.8, S.ID.9)	
Unit 5: Transformations In the Coordinate Plane	5 weeks
Experiment with transformations in the plane (G.CO.1, G.CO.2, G.CO.3, G.CO.4, G.CO.5)	
Unit 6: Connecting Algebra And Geometry Through Coordinates	5 weeks
Use coordinates to prove simple geometric theorems algebraically (G.GPE.4, G.GPE.5, G.GPE.6, G.GPE.7)	

END-OF-COURSE TEST: CCGPS Math I/Coordinate Algebra is a course where the state administers an end-of-course test to all students enrolled in the class. It occurs in May and will count as the second semester final exam. Consequently, each student needs to work at retaining all of the material in order to do well on the state given test.

GRADING: ***Grades are cumulative for the entire semester.

Formative: 30% Summative Assessments: 50% Final Exam: 20%

NOTEBOOKS: A notebook will be required. Students will also be required to track their progress on the standards that are to be mastered in the course.

County website: www.henry.k12.ga.us School website: www.schoolwires.henry.k12.ga.us/elh

State Math Frameworks website: www.georgiastandards.org/mathframework.aspx