



NEW COURSE TITLE

NEW COURSE TITLE:	Algebra 1 Foundations SH
RATIONALE FOR ESTABLISHING NEW COURSE: (This statement will be utilized in preparing a description of the revised course for inclusion in the next updating of the Secondary School Curriculum: Guidelines for Instruction.)	
<p>With the establishment of the new Common Core State Standards and the new course, Common Core Algebra 1, therefore, this course is designed to provide students enrolled in or preparing to enroll in Common Core Algebra 1 with the intervention necessary to support them to succeed. This course provides students with foundational knowledge, intervention, and academic language skills that are required to successfully access the rigorous demands of the standards-based Common Core Algebra 1.</p>	
COURSE DESCRIPTION: (Identify State Content Standards to be emphasized in the course.)	
<p>Algebra 1 Foundations SH is designed to provide foundational knowledge and intervention for students taking CC Algebra 1 and for students who are preparing to be enrolled in CC Algebra 1. The course is also used to provide intervention for the students who are enrolled in CC Algebra 1 but are experiencing difficulty in mastering the core standards and academic language of CC Algebra 1. Algebra 1 Foundations SH is an elective mathematics course provided to students as a second course to support the core CC Algebra 1 course. The course is designed to enhance the student's knowledge of prerequisite skills and academic language that are needed to access the standards-based CC Algebra 1 course. In this course, students will demonstrate knowledge of mathematical functions connects the pre-algebra and algebra. Students will review number system, ratios and proportional relationships, expressions and equations, functions, statistics, and probability. They will develop and use mathematics thinking skills through the application of mathematical practices. They will solve systems of linear equations, simplify polynomials, analyze univariate and bivariate data, and make connections to linear equations.</p> <p>Students enrolled in this <i>intervention course</i> need <b>to be assessed</b> in an ongoing basis to determine their needs for support and intervention. Teachers are encouraged to tailor instruction through ongoing assessment to provide true differentiated instruction. The outcome of the initial and ongoing assessments are analyze to identify skill and concept requirements necessary for any Common Core State Standard, compare those requirements to the student's existing skill set, and analyze any potential student deficits.</p> <p>The aim of the intervention in CC Algebra 1 is to provide explicit, systematic, intensive instruction for at-risk populations. As teachers strive to assist struggling students to reach the Common Core State Standards expectations, they must be able to accurately identify areas of student deficit and to match any student to an appropriate academic intervention plan. The idea of the Algebra 1 Foundations SH /intervention is to create evidence-based intervention plans that customized to individual students and that are tied to specific Common Core Standards.</p> <p>According to the California CCSS Mathematics Framework (November, 2013), "Universal Access in education is</p>	



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a concept which utilizes strategies for planning for the widest variety of learners from the beginning of the lesson design and not “added on” as an afterthought. Universal Access is not a set of curriculum materials or specific time set aside for additional assistance but rather a schema. For students to benefit from universal access, teachers may need assistance in planning instruction, differentiating curriculum, infusing Specially Designed Academic Instruction in English (SDAIE) techniques, using the California English Language Development Standards (CA ELD standards), and using grouping strategies effectively. “Therefore, through careful planning for modifying curriculum, instruction, grouping, and assessment techniques, teachers can be well prepared to adapt instruction to meet the needs of diverse learners in their classrooms.

PROPOSED TEXTBOOK:		LAUSD Adopted Textbooks: Such as: Illustrative Mathematics			
AUTHOR:		Bill Mc Caullum, et. Al.			
PUBLISHER:		Imagine Learning			
Is this a CTE Course?		YES	X	NO	
		If yes, complete Attachment E in addition to this form)			

Current Standards	Performance Standards	Instructional Units	Pacing Plan (Time line)
<b>Number System</b> 7.NS.1  7.NS.2 7.NS.3	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Unit 1	10 Days
<b>Ratios and Proportional Relationships</b> 7.RP.1 7.RP.2 7.RP.3	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Unit 1	10 Days
<b>Ratios and Proportional Relationships</b> 6.RP.3	Understand ratio concepts and use ratio reasoning to solve problems	Unit 1	5 Days
<b>Expressions and Equations</b> 6.EE.2 6.EE.3 6.EE.3	Apply and extend previous understandings of arithmetic to algebraic expressions	Unit 1	10 Days
<b>Expressions and Equations</b> 6.EE.5 6.EE.6 7.EE.1	Apply and extend previous understandings of arithmetic to algebraic expressions	Unit 2	10 Days



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<b>Expressions and Equations</b> 8 EE.5 8 EE.6 A-CED.2	Understand the connections between proportional relationships, lines, and linear equations.  Create equations and inequalities in one variable including ones with absolute value and use them to solve problems. Include equations arising from linear functions.	Unit 2	10 Days
<b>Expressions and Equations</b> 8.EE.7 8.EE.8 A-REI.5	Analyze and solve linear equations and pairs of simultaneous linear equations.  Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	Unit 2	10 Days
<b>Functions</b> 8.F.2 8.F.3	Define, evaluate, and compare functions	Unit 2	10 days
<b>Functions</b> 8.F.4 8.F.5 S-ID.5 S-ID.6c	Use functions to model relationships between quantities. Fit a linear function for a scatter plot that suggests a linear association. Interpret linear models. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Unit 2	10 Days
<b>Statistics and Probability</b> 8.SP.1 8.SP.2 8.SP.3 8.SP.4 S-ID.5 S-ID.6	Investigate patterns of association in bivariate data  Represent data on two quantitative variables on	Unit 3	20 Days



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S-ID.7 A-CED.1	a scatter plot and describe how the variables are related.  Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.		
<b>Expressions and Equations</b> 7.EE.4  A-SSE.1	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.  Interpret expressions that represent a quantity in terms of its context.	Unit 4	5 Days
<b>Functions - Interpreting Functions</b> F.IF.4 S-ID. 6a-b	Interpret functions that arise in applications in terms of a context.  Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Informally assess the fit of a function by plotting and analyzing residuals.	Unit 4	5 Days
<b>Expressions and Equations</b> 8.EE.1 8.EE.2 8.EE.3 8.EE.4 N-RN.2 N-RN.1	Work with radicals and integer exponents.  Rewrite expressions involving radicals and rational exponents using the properties of exponents.	Unit 5	15 Days



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<b>Standards for Mathematical Practice</b>		<b>Embedded throughout all lessons</b>	<b>Everyday</b>
<ol style="list-style-type: none"><li>1. Make sense of problems and persevere in solving them.</li><li>2. Reason abstractly and quantitatively.</li><li>3. Construct viable arguments and critique the reasoning of others.</li><li>4. Model with mathematics.</li><li>5. Use appropriate tools strategically.</li><li>6. Attend to precision.</li><li>7. Look for and make use of structure.</li><li>8. Look for and express regularity in repeated reasoning.</li></ol>	<ul style="list-style-type: none"><li>• Interpret and make sense of problems; find multiple access points to a problem.</li><li>• Defend and justify solutions.</li><li>• Make sense of quantities and their relationships</li><li>• Justify conclusions and ask clarifying questions.</li><li>• Listen to arguments of others and ask useful questions to determine if an argument makes sense.</li><li>• Represent math with a diagram, an equation, a graph, a table, or another model.</li><li>• Identify relevant tools (manipulatives, technology, measurement tools, etc.) to solve problems.</li><li>• Communicate precisely.</li><li>• Express numerical answers with a degree of precision appropriate for the problem</li><li>• Apply general mathematical rules to specific situations.</li><li>• See repeated calculations and look for generalizations and shortcuts</li></ul>		

Unit assessment is recommended before and after each Unit.