


Perris Union High School District Course of Study

A. COURSE INFORMATION

Course Title: <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Math 7</div> <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised	Subject Area: <input type="checkbox"/> Social Science <input type="checkbox"/> English <input checked="" type="checkbox"/> Mathematics <input type="checkbox"/> Laboratory Science <input type="checkbox"/> World Languages <input type="checkbox"/> Visual or Performing Arts <input type="checkbox"/> College Prep Elective <input type="checkbox"/> Other	Grade Level <input type="checkbox"/> MS <input type="checkbox"/> HS <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12
Transcript Title/Abbreviation: <div style="border: 1px solid black; height: 20px; width: 100%;"></div> (To be assigned by Educational Services)	Is this classified as a Career Technical Education course? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Transcript Course Code/Number: <div style="border: 1px solid black; height: 20px; width: 100%;"></div> (To be assigned by Educational Services)		
Required for Graduation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Credential Required to teach this course: <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Mathematics <i>To be completed by Human Resources only.</i> </div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px; width: 60%;"> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> 5/3/17 Date </div> </div>	
Meets UC/CSU Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Was this course <i>previously approved by UC</i> for PUHSD? <input type="checkbox"/> Yes <input type="checkbox"/> No (Will be verified by Ed Services)	Meets "Honors" Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Meets "AP" Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Value/Length of Course: <input type="checkbox"/> 0.5 (half year or semester equivalent) <input checked="" type="checkbox"/> 1.0 (one year equivalent) <input type="checkbox"/> 2.0 (two year equivalent) <input type="checkbox"/> Other:	
Submitted by: Arden Darton Site: SSC Date: 4/28/17		
Approvals	Name/Signature	Date
Director of Curriculum & Instruction		5/1/17
Asst. Superintendent of Educational Services		5.4.17
Governing Board		

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Submitted by: <i>Amanda Darton</i> Site: <i>BSC</i> Date: <i>4/28/17</i>		
Approvals	Name/Signature	Date
Director of Curriculum & Instruction		<i>5/1/17</i>
Asst. Superintendent of Educational Services		
Governing Board		

Prerequisite(s) (REQUIRED):

None

Corequisite(s) (REQUIRED):

None

Brief Course Description (REQUIRED):

In Math 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

B. COURSE CONTENT**Course Purpose (REQUIRED):**

What is the purpose of this course? Please provide a brief description of the goals and expected outcomes. Note: More specificity than a simple recitation of the State Standards is needed.

In grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

(1) Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

(2) Students develop a unified understanding of number, recognizing fractions, decimals (that have a finite or a repeating decimal representation), and percents as different representations of rational numbers. Students extend addition, subtraction, multiplication, and division to all rational numbers, maintaining the properties of operations and the relationships between addition and subtraction, and multiplication and division. By applying these properties, and by viewing negative numbers in terms of everyday contexts (e.g., amounts owed or temperatures below zero), students explain and interpret the rules for adding, subtracting, multiplying, and dividing with negative numbers. They use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems.

(3) Students continue their work with area from grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

(4) Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

Course Outline (REQUIRED):

Detailed description of topics covered. All historical knowledge is expected to be empirically based, give examples. Show examples of how the text is incorporated into the topics covered.

Students will work on the following concepts:

- Integers and Rational Numbers
 - Operations with Integers
 - Operations with Rational Numbers
 - Solve Problems with Rational Numbers
- Analyze Proportional Relationship
 - Ratio and Rat Concepts
 - Recognize Proportional Relationships
 - Represent Proportional Relationships
- Analyze and Solve Percent Problems
 - Percent and Proportions
 - Represent the Percent Equation
 - Use the Percent Equation
- Generate Equivalent Expressions
 - Recognize and Represent Expressions
 - Use Properties
 - Simplify Expressions
- Solve Problems Using Equations and Inequalities
 - Evaluate Expressions and Equations
 - The Rules of Equations and Inequalities

- Evaluate Inequalities
- Use Sampling to draw Inferences About Populations
 - Populations and Samples
 - Make Informal Inferences
 - Compare Populations Informally
- Probability
 - Probability of a Single Event
 - Probability of Compound Events
 - Simulate Compound Events
- Solve Problems Involving Geometry
 - Scale Drawing and Formula Concepts
 - Recognize Angle and Side Relationships
 - Geometric Figures

Writing Assignments (REQUIRED):

Give examples of the writing assignments and the use of critical analysis within the writing assignments.

Writing assignments will include:

- Justifications and/or Explanations
- Cornell Notes
- Assessments
- Projects/Performance Tasks
- Journals/Learning Logs – Reflections/Summaries
- Writing Prompts
- Other CFUs (i.e. Warm ups and Tickets out the Door)

INSTRUCTIONAL MATERIALS (REQUIRED)

INSTRUCTIONAL MATERIALS (REQUIRED)	
Textbook #1	
Title: envision Math 2.0	Edition: First
Author: Berry, Champagne, Milou, Schielack, Wray, Charles and Fennell	ISBN: 9780328896226
Publisher: Pearson	Publication Date: 2016
Usage: <input checked="" type="checkbox"/> Primary Text <input type="checkbox"/> Read in entirety or near	
Textbook #2	

Title:	Edition:
Author:	ISBN:
Publisher:	Publication Date:
Usage: <input type="checkbox"/> Primary Text <input type="checkbox"/> Read in entirety or near	

Supplemental Instructional Materials *Please include online, and open source resources if any.*

9780328896448 ENVISION MATH 2.0 EXAMVIEW CD-ROM GRADE 7 COPYRIGHT 2017 \$128.97
9780328881123 ENVISION MATH 2.0 TEACHER RESOURCE MASTERS PACKAGE GR 7 COPYRIGHT 2017 \$149.97
9780328880973 ENVISION MATH 2.0 COMMON CORE TEACHER EDITION PACKAGE GR.7 COPYRIGHT 2017 \$ 530.97

Estimated costs for classroom materials and supplies (REQUIRED). *Please describe in detail.*
If more space is needed than what is provided, please attach backup as applicable.

Cost for class set of textbooks: \$ 3742.92	Description of Additional Costs:
Additional costs:\$ 530.97	
Total cost per class set of instructional materials:	\$ 42738.89

Key Assignments (REQUIRED):

Please provide a detailed description of the Key Assignments including tests, and quizzes, which should incorporate not only short answers but essay questions also. How do assignments incorporate topics? Include all major assessments that students will be required to complete

Key Assignments will include:

- End of Unit Assessments
- Daily/Lesson Quizzes
- Semester Benchmarks/Finals
- Performance Tasks/ Projects
- Homework
- Midterm/mid-unit Assessments
- Cornell Notes

Instructional Methods and/or Strategies (REQUIRED):

Please list specific instructional methods that will be use.

Instructional Strategies will include:

- Direct Instruction
- Targeted Feedback
- Reciprocal Teaching
- Collaboration
- Adapting to learning styles and multiple intelligences
- Realia
- Modeling
- Guided and Independent practice
- Partner/ Group work
- Spiraling
- Questioning strategies that look for participation and content understanding

Assessment Methods and/or Tools (REQUIRED):

Please list different methods of assessments that will be used.

Assessment Methods will include:

- Type of Questions include:
 - Open Response
 - Multiple Choice
 - Performance Assessment\
 - Multiple Choice
- Investigations
- Projects
- Self-assessment
- Whiteboards
- Find the error
- Portfolios/"Notebooks"
- Ticket out the Doors
- Homework

Platforms include: Pearson, Eadms, Haiku and Desmos

COURSE PACING GUIDE AND OBJECTIVES (REQUIRED)

Day(s)	Objective	Standard(s)	Chapter(s)	Reference
17-24	Integers and Rational Numbers 1-1 Understand Integers and Absolute Value	7.NS.1a 7.NS.1b 7.NS.1c 7.NS.1d	Topic 1	Essential Standards Addressed

	<p>1-2 Understand Integers and Absolute Value</p> <p>1-3 Add Integers</p> <p>1-4 Subtract Integers</p> <p>1-5 Add and Subtract Rational Numbers</p> <p>1-6 Multiply Integers</p> <p>1-7 Multiply Rational Numbers</p> <p>1-8 Divide Integers</p> <p>1-9 Divide Rational Numbers</p> <p>1-10 Solve Problems Involving Rational Numbers</p> <p>3-Act 3-Act Mathematical Modeling</p>	<p>7.NS.2a</p> <p>7.NS.2b</p> <p>7.NS.2c</p> <p>7.NS.3</p> <p>7.EE.3</p>		
11-18	<p>Analyze and Use Proportional Relationships</p> <p>2-1 Connect Ratios, Rates, and Unit Rates</p> <p>2-2 Determine Unit Rates with Ratios of Fractions</p> <p>2-3 Understand Proportional Relationships: Equivalent Ratios</p> <p>2-4 Describe Proportional Relationships: Constant of Proportionality</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>2-5 Graph Proportional Relationships</p> <p>2-6 Apply Proportional Reasoning to Solve Problems</p>	<p>7.RP.1</p> <p>7.RP.3</p> <p>7.RP.2b</p> <p>7.RP.2a</p> <p>7.RP.2c</p> <p>7.RP.2d</p>	Topic 2	
11-18	<p>Analyze and Solve Percent Problems</p> <p>3-1 Analyze Percents of Numbers</p>	<p>7.RP.2a</p> <p>7.RP.2b</p> <p>7.RP.2d</p>	Topic 3	

	<p>3-2 Connect Percent and Proportion</p> <p>3-3 Represent and Use the Percent Equation</p> <p>3-4 Solve Percent Change and Percent Error Problems</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>3-5 Solve Markup and Markdown Problems</p> <p>3-6 Solve Simple Interest Problems</p>	<p>7.RP.2c</p> <p>7.RP.3</p>		
14-21	<p>Generate Equivalent Expressions</p> <p>4-1 Write and Evaluate Algebraic Expressions</p> <p>4-2 Understand Linear Expressions</p> <p>4-3 Simplify Linear Expressions</p> <p>4-4 Expand Linear Expressions</p> <p>4-5 Factor Linear Expressions</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>4-6 Add Linear Expressions</p> <p>4-7 Subtract Linear Expressions</p> <p>4-8 Analyze Equivalent Expressions</p>	<p>7.EE.4a</p> <p>7.EE.1</p> <p>7.EE.2</p>	Topic 4	
13-20	<p>Solving Problems Using Equations and Inequalities</p> <p>5-1 Write Two-Step Equations</p> <p>5-2 Solve Two-Step Equations</p> <p>5-3 Solve Equations Using the Distributive Property</p>	<p>7.EE.4a</p> <p>7.EE.3</p> <p>7.EE.4b</p>	Topic 5	

	<p>5-4 Solve Inequalities Using Addition or Subtraction</p> <p>5-5 Solve Inequalities Using Multiplication or Division</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>5-6 Graph Solutions to Inequalities</p> <p>5-7 Write Two-Step Inequalities</p> <p>5-8 Solve Two-Step Inequalities</p> <p>5-9 Solve Multi-Step Inequalities</p>			
8-10	<p>Use Sampling to Draw Inferences About Populations</p> <p>6-1 Populations and Samples</p> <p>6-2 Biased and Unbiased Samples</p> <p>6-3 Draw Inferences About Populations</p> <p>6-4 Compare Populations Using Data Displays</p> <p>6-5 Compare Populations Using Statistical Measures</p> <p>3-Act 3-Act Mathematical Modeling</p>	<p>7.SP.1</p> <p>7.SP.2</p> <p>7.RP.2b</p> <p>7.RP.3</p> <p>7.EE.3</p> <p>7.SP.3</p> <p>7.SP.4</p>	Topic 6	
14-16	<p>Probability</p> <p>7-1 Understand Likelihood and Probability</p> <p>7-2 Connect Relative Frequency and Experimental Probability</p> <p>7-3 Represent Sample Spaces</p> <p>7-4 Find Probabilities of Simple Events</p>	<p>7.SP.5</p> <p>7.SP.6</p> <p>7.EE.3</p> <p>7.SP.7a</p> <p>7.SP.8b</p> <p>7.SP.7b</p> <p>7.EE.4a</p>	Topic 7	

	<p>3-Act 3-Act Mathematical Modeling</p> <p>7-5 Determine Outcomes of Compound Events</p> <p>7-6 Find Probabilities of Compound Events</p> <p>7-7 Simulate Compound Events</p>			
16-18	<p>Solve Problems Involving Geometry</p> <p>8-1 Solve Problems Involving Scale Drawings</p> <p>8-2 Draw Geometric Figures</p> <p>8-3 Draw Triangles with Given Conditions</p> <p>8-5 Solve Problems Involving Circumference of a Circle</p> <p>8-6 Solve Problems Involving Area of a Circle</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>8-7 Describe Cross Sections</p> <p>8-4 Solve Problems using Angle Relationships</p> <p>8-6 Solve Problems Involving Area of a Circle</p> <p>3-Act 3-Act Mathematical Modeling</p> <p>8-8 Solve Problems Involving Surface Area</p> <p>8-9 Solve Problems Involving Volume</p>	<p>7.G.1</p> <p>7.G.2</p> <p>7.EE.4a</p> <p>7.G.4</p> <p>7.G.3</p> <p>7.G.5</p> <p>7.EE.3</p> <p>7.G.6</p> <p>7.NS.3</p>	Topic 8	

C. HONORS COURSES ONLY

Indicate how much this honors course is different from the standard course.

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D. BACKGROUND INFORMATION

Context for course (optional)

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History of Course Development (optional)

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