

Elk Grove Charter School

Math 2*

Course Requirements and Syllabus

Course # 3025 10 Credits

Text

Integrated Mathematics 2, Houghton Mifflin Harcourt

Course Description

This course is the second course in a series of three that uses an integrated approach to cover the following domains: Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. This course focuses on extending the laws of exponents to rational exponents, and solving and comparing the characteristics of functions, including their associated inequalities. Students will extend their work with similarity, triangle and coordinate proofs, constructions, congruence, and transformations while using proportional reasoning, trigonometric ratios and the Pythagorean Identity. Students will expand their conceptual understanding of probability and statistics. **In order to meet A-G requirements, students must earn a grade of "C" or better.**

Course Note*

For students who are taking fewer than 10 credits, complete Unit 1 – Unit 6 first (regardless of the previous credits completed).

Mathematical Practice Standards

Standard 1 Make sense of problems & persevere in solving them.

Standard 2 Reason abstractly & quantitatively.

Standard 3 Construct viable arguments & critique others' reasoning.

Standard 4 Model with mathematics.

Standard 5 Use tools strategically.

Standard 6 Attend to precision.

Standard 7 Make use of structure.

Standard 8 Express regularity in reasoning.

Unit Overview

Unit	Module	Lesson	Interventions	Assessment
Each "unit" is 0.5 to 2 credits (7.5 to 30 hours of work).	Each unit is divided into several "modules," which are collections of lessons about the same topic.	Each "Lesson" is divided into 4 sections: <ul style="list-style-type: none"> • Explore • Explain • Elaborate • Evaluate* You must complete EACH section of EACH lesson indicated to complete your homework. *For EVALUATE, only odd-numbered problems are required.	Reteach worksheets and reviews are available as interventions for students who are unable to pass the test. See your ISP teacher for the supplemental worksheets.	Every unit has a test. 1 Performance Task is assigned as the midterm, and 1 is assigned as the final. These are SBAC-aligned.

Assignment Rubric:

	5	4	3	2	1
Completeness	90-100% of ALL assignments completed	At least 80% of ALL assignments completed	At least 60% of ALL assignments completed	At least 40% of ALL assignments completed	At least 20% of ALL assignments completed
Accuracy	90-100% of ALL assignments correct	At least 80% of ALL assignments correct	At least 60% of ALL assignments correct	At least 40% of ALL assignments correct	At least 20% of ALL assignments correct

Assignments

Unit	Credits	Book Assignment	Assessment
1 Characteristics of Functions	1	MODULE 1 ANALYZING FUNCTIONS ·1.1 ·1.2 MODULE 2 ABS. VALUE FUNC., EQU., & INEQ. ·2.1 ·2.2 ·2.3	Unit 1 Test
2 Polynomial Operations	1	MODULE 3 RATIONAL EXPONENTS & RADICALS ·3.1 ·3.2 MODULE 4 ADDING/SUBTRACTING POLY. ·4.1 ·4.2 ·4.3 MODULE 5 MULTIPLYING POLYNOMIALS ·5.1 ·5.2 ·5.3	Unit 2 Test
3 Quadratic Functions	1	MODULE 6 GRAPHING QUADRATIC FUNC. ·6.1 ·6.2 ·6.3 MODULE 7 INTERCEPTS, ZEROS, & FACTORS ·7.1 ·7.2 ·7.3	Unit 3 Test
4 Quadratic Equations and Models	1.5	MODULE 8 USE FACTORS TO SOLVE QUAD. ·8.1 ·8.2 ·8.3 MODULE 9 USE SQ. RT. TO SOLVE QUAD. ·9.1 ·9.3 ·9.5 ·9.2 ·9.4 MODULE 10 LINEAR, EXPO., & QUAD MODEL ·10.4 ·10.5	Unit 4 Test
5 Extending Quadratic Equations	0.5	MODULE 11 QUAD. EQU. & COMPLEX NUMBERS ·11.1 ·11.2 ·11.3 MODULE 12 QUAD. RELAT. & SYSTEMS OF EQU. ·12.3	Unit 5 Test
Midterm (Cumulative)	--	--	Performance Task 1
6 Geometric Proof	1	MODEULE 15 PROOFS TRIANGLE & QUAD. ·15.1 ·15.3 ·15.5 ·15.7 ·15.2 ·15.4 ·15.6	Unit 6 Test
7 Similarity and Right Triangles	2	MODULE 16 SIMILARITY & TRANSFORMATIONS ·16.1 ·16.3 ·16.2 ·16.4 MODULE 17 USING SIMILAR TRIANGLES ·17.1 ·17.3 ·17.2 ·17.4 MODULE 18 TRIG WITH RIGHT TRIANGLES ·18.1 ·18.3 ·18.2 ·18.4	Unit 7 Test
8 Properties of Circles	1	MODULE 19 ANGLES & SEGMENTS IN CIRCLES ·19.1 ·19.3 ·19.5 ·19.2 ·19.4 MODULE 20 ARC LENGTH & SECTOR AREA ·20.1 ·20.3 ·20.2	Unit 8 Test
9 Volume	0.5	MODULE 21 VOLUME FORMULAS ·21.1 ·21.3 ·21.5 ·21.2 ·21.4	Unit 9 Test
10 Understanding Probability	0.5	MODULE 22 INTRODUCTION TO PROBABILITY ·22.1 ·22.4 MODULE 23 COND. PROB. & INDEP. OF EVENTS ·23.1 ·23.2	Unit 10 Test
Final (Cumulative)	--	--	Performance Task 2