WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Algebra 1B
Course Number: 00226
Course Prerequisites: This course is designed for the student who has passed Algebra IA.

Course Description: Algebra IB is the second of the two year Algebra course; continuing the sequence of Algebra IA, Algebra IB, and Geometry. In order to take this course, a student must have passed Algebra IA. This course continues the study of numbers and operations, systems of equations and inequalities, polynomials, and data analysis and probability. A final exam is required. Keystone Exams are required of all students for graduation. If this state-mandated test is not passed, remediation will be required, and students will retake the exam.

Suggested Grade Level: Grades 10-12
Length of Course: Two Semesters
Units of Credit: 1
PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG #50
To find the CSPG information, go to CSPG
Certification verified by the WCSD Human Resources Department: ☒Yes ☐No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic
Mark Types: Check all that apply.
☒F – Final Average ☒MP – Marking Period ☒EXM – Final Exam

GPA Type: ☐ GPAEL-GPA Elementary ☐ GPAML-GPA for Middle Level ☒ NHS-National Honor Society
☒ UGPA-Non-Weighted Grade Point Average ☒ GPA-Weighted Grade Point Average

State Course Code: 02054
To find the State Course Code, go to State Course Code, download the Excel file for *SCED*, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title:	enVision Algebra 1
Publisher:	Pearson
ISBN #:	#10: 0-328-93154-3
Copyright Date:	2018
WCSD Board Approval Date:	6/29/2020

Supplemental Materials: Algebra 1 – Prentice Hall 2011 (foundations series) – ALL IN ONE TEACHING RESOURCES, Algebra I – Prentice Hall 2007 (green book), kutasoftware.com, getmoremath.com, pdesas.org

Curriculum Document

WCSD Board Approval:

Date Finalized:	6/5/2020
Date Approved:	6/29/2020
Implementation Year:	2020-2021

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS

Performance Indicator	**PA Core Standard and/or Eligible Content**	**Month Taught and Assessed for Mastery**
Review simplifying expressions by using the order of operations	A1.1.1.3.3, A1.1.1.4	September September
Review solving one-step and two-step equations	A1.1.2.1, A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3	September Choose an item.
Use the Product Property of Square Roots to simplify radical expressions (numbers only, no variables!)	A1.1.1.1.2, A1.1.1.2, A1.1.1.3, A1.1.1.3.1	September October
Simplify sums and differences of radical expressions (numbers only, no variables)	A1.1.1.1.2, A1.1.1.2, A1.1.1.3, A1.1.1.3.1	September October
Simplify products and quotients of radical expressions (no rationalizing necessary)	A1.1.1.1.2, A1.1.1.2, A1.1.1.3, A1.1.1.3.1	September October
Solve quadratic equations using the Square Root Property (ax^2 + b = c)	A1.1.1.1.2, A1.1.1.2, A1.1.1.3, A1.1.1.3.1	October Choose an item.
Solve triangle problems using the Pythagorean Theorem	A1.1.1.1.2, A1.1.1.2, A1.1.1.3, A1.1.1.3.1	October Choose an item.
To simplify expressions involving zero and negative exponents	A1.1.1.1, A1.1.1.3.3	October November
To multiply powers with the same base	A1.1.1.1, A1.1.1.3.3	October November
To raise a power to a power	A1.1.1.1, A1.1.1.3.3	October November
To raise a product to a power	A1.1.1.1, A1.1.1.3.3	October November
To divide powers with the same base	A1.1.1.1, A1.1.1.3.3	October November
To raise a quotient to a power	A1.1.1.1, A1.1.1.3.3	October November
To write numbers in scientific and standard notation	A1.1.1.1, A1.1.1.2, A1.1.1.3.3, A1.1.1.4	October November
To compare and order numbers using scientific notation	A1.1.1.1, A1.1.1.3.3	October November
Classify polynomials by their degree and number of terms	A1.1.1.1.1	November Choose an item.
Write polynomials in standard form	A1.1.1.1.1, A1.1.1.5.4, A1.1.1.5.6	November Choose an item.
Add and subtract polynomials	A1.1.1.5.4, A1.1.1.5.6	November Choose an item.
Multiply polynomials (no larger than a binomial times a trinomial)	A1.1.1.5.4, A1.1.1.5.6	November Choose an item.
Find the square of a binomial	A1.1.1.5.4, A1.1.1.5.6	November Choose an item.
Use the sum and difference pattern	A1.1.1.5.4, A1.1.1.5.6	November Choose an item.
Factor polynomials using the GCF	A1.1.1.2.1, A1.1.1.5.2	December Choose an item.
Factor trinomials without a leading coefficient	A1.1.1.2.1, A1.1.1.5.2	December Choose an item.
Factor trinomials with a leading coefficient (the leading coefficient is always the GCF)	A1.1.1.2.1, A1.1.1.5.2	December Choose an item.

Factor special-case polynomials (difference of squares, perfect square trinomial)	A1.1.1.2.1, A1.1.1.5.2	December January
Use polynomials and their operations to model real-world problems	A1.1.1.5.4, A1.1.1.5.6	December January
Simplify rational expressions	A1.1.1.5.9	January Choose an item.
Identify solutions of quadratic equations when provided with the graph	A-REI.4b	January Choose an item.
Use the Zero-Product Property to solve quadratic equations by factoring	A1.1.1.5.2, A-REI.4b	January Choose an item.
Represent and interpret data using various representations (dot plot, histogram, Box-and-Whisker plot)	A1.2.3.2, A1.2.3.2.2, A1.2.3.2, A1.2.3.1	January February
To find mean, median, mode and range	A1.2.3.2, A1.2.3.2.2, A1.2.3.2, A1.2.3.1	January February
Compare data sets that are displayed with the same representation (dot plot, histogram, Box-and-Whisker plot)	A1.2.3.2.2, A1.2.3.2, A1.2.3.2	January February
Interpret and compare shapes of distributions	A1.2.3.2, A1.2.3.2.2	January February
Compute the theoretical and experimental probability of a single event	A1.2.3.3	February Choose an item.
Compute the probability of compound events (“and” versus “or”, replacement versus no replacement)	A1.2.3.3, A1.2.3.3.1	February Choose an item.
Review the skill of writing linear equations from Algebra 1A- writing equations in slope-intercept form, point-slope form, and standard form	A1.1.2.1	February Choose an item.
Review the skill of graphing linear equations from Algebra 1A- graph equations in slope-intercept form, point-slope form, and standard form	A1.1.2.1	February Choose an item.
Verify solutions to systems of equations	A1.1.2.2.1	March Choose an item.
Solve systems of equations by graphing	A1.1.2.2.1, A1.1.2.1.1, A1.1.2.1.3	March Choose an item.
Solve systems of equations by substitution	A1.1.2.2.1, A1.1.2.1.1, A1.1.2.1.3	March Choose an item.
Solve systems of equations by elimination	A1.1.2.2.1, A1.1.2.1.1, A1.1.2.1.3	March Choose an item.
Identify systems with infinitely many or no solutions from using any method	A1.1.2.2.1, A1.1.2.1.1, A1.1.2.1.3	March Choose an item.
Write systems of equations to model and solve real-world problems	A1.1.2.2.1, A1.1.2.1.1, A1.1.2.1.3	Choose an item. March
Graph a linear inequality in two variables	A1.1.3.2, A1.1.3.1.9	March April
Write a two-variable inequality to model a graph	A1.1.3.2	March April
Graph a system of linear inequalities in two variables	A1.1.3.2	March April
Write a system of linear inequalities in two variables to model a graph	A1.1.3.2	March April
Keystone Review (all of Algebra 1A and Algebra 1B)	Click or tap here to enter text.	April May

ASSESSMENTS

PSSA Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: Suggested but not limited to:
Observations, Evaluate written work, Evaluate oral response, student self-evaluation, Cooperative learning, Homework, Classroom Diagnostic Tool

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: Suggested but not limited to: Performance Assessment, Quizzes, and Chapter/Units Tests