

High School Syllabus

Department: Mathematics
Course Title: Algebra 2

Course #: 40410X

DESCRIPTION OF COURSE: Students will learn the set of complex numbers and its use in expressions, equations, functions, and graphs. They will understand how to simplify expressions and how to graph linear, quadratic, exponential, polynomial, rational, and radical equations. Also, they will learn how to represent these solutions in graphic form and practice general procedures applicable to problem situations. Working individually with a partner or in small groups, students will demonstrate their knowledge by applying appropriate skills. In addition, students will hone their graphing calculator skills to solve more complex problems. Assessments will include activities, projects, oral presentations, quizzes, and tests requiring problem learning skills. Students will take the Algebra 2 final exam at the end of the course.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
Tools of Algebra	8 days	CC.2.1.HS.F.2,3,4,5 ; CC.2.2.HS.D.8,9 A1.1.1.1.1 A2.1.3.2.2
Functions, Equations, and Graphs	12 days	CC.2.2.HS.C.1,2,3,6 ; CC.2.2.HS.D.1,2 CC.2.2.HS.D.7
Linear Systems	10 days	CC.2.2.HS.C.5; CC.2.2.HS.D.10 CC.2.4.HS.B.2,3; A1.1.2.2.2 A1.1.3.2.2
Matrices	10 days	A1.1.1.1.1
Quadratic Equations and Functions	20 days	CC.2.1.HS.F.5,6,7; CC.2.2.HS.C.6 A1.1.1.5.2; A1.1.1.1.2; A2.1.1.1.1,2 A2.1.1.1.2,2; A2.2.1.1.4
Polynomials and Polynomial Functions	12 days	CC.2.2.HS.D.1,2,3,5,6
Radical Functions and Rational Exponents	20 days	CC.2.2.HS.C.4; A2.1.2.1.1,2,3; CC.2.1.HS.F.1,4
Exponential and Logarithmic Functions;	15 days	CC.2.2.HS.C.5; CC.2.2.HS.D.6 A2.1.1.2.1.1,2,3,4; A2.2.2.1.1,2,3,4 A2.2.1.1.1,2,3; A2.1.2.1.1,4
Rational Functions	10 days	CC.2.2.HS.C.5; CC.2.2.HS.D.6 A2.1.1.2.1.1,2,3,4; A2.2.2.1.1,2,3,4 A2.2.1.1.1,2,3; A2.1.2.1.1,4
Sequences	8 days	CC.2.2.HS.C.5; CC.2.2.HS.D.6 A2.1.1.2.1.1,2,3,4; A2.2.2.1.1,2,3,4

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
		A2.2.1.1.1,2,3; A2.1.2.1.1,4

RESOURCES: Algebra 2 Prentice Hall, 2008 edition
TI-83 Graphing Calculator is recommended

Rev.: 3/15