



Joplin High School
Algebra II A
Mathematics
2012 - 2013
Full Course Year for 1 Credit
Syllabus and Expectations

Instructor: Ms. Taylor
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Course Description:

Algebra IIA is a mathematics course designed to help students understand the algebra concepts necessary to work and live in a technical world. The course reinforces basic algebra concepts, utilizes problem-solving exercises to develop and refine those skills, and includes new algebra concepts. This course, along with Math Applications, Algebra I and Geometry A will provide students with the skills necessary to enter a college, technical school, or to seek employment. This course is not designed for students intending to take Trigonometry and / or Math Analysis.

Prerequisites:

Successful completion of Algebra I.

Major Course Objectives:

Use equations and systems of equations to model and formulate solutions to real-world problems.

Course Goals and Topics Covered in the Course:

Students will:

- solve linear equations and inequalities.
- graph linear equations and inequalities.
- write equations of lines.
- use and solve systems of linear equations and inequalities with two variables.
- solve problems involving proportion.
- generalize patterns using explicitly or recursively defined functions.
- understand and compare the properties of linear, exponential, and quadratic functions (including domain and range).
- describe the effects of parameter changes on quadratic functions.
- use and solve equivalent forms of equations and inequalities (piecewise and quadratic).
- analyze quadratic functions by investigating rates of change, intercepts, and zeros.

- apply properties of exponents to simplify expressions or solve equations.
- describe and use algebraic manipulatives, including factoring and rules of integer exponents.
- select, create, and use appropriate graphical representation of data.
- apply statistical concepts to solve problems.
- describe the concept of sample space and probability distribution.
- compare and contrast various forms of representations of patterns.
- identify quantitative relationships and determine types of functions that might model the situation to solve the problem.

Required Textbook and Recommended Readings:

None

Special Resources (Including INTERNET RESOURCES):

TBA

Supplies and Fees:

Laptops, calculator, pencils and paper.

Evaluation Of Course (Includes grading percentage, participation)

A. Grading Scale

90 -100% A
 80 - 89% B
 70 - 79% C
 60 - 69% D
 0 - 59% F

B. Grade Distribution per Activity (percentage or points)

10% Homework, 20% Activities and Participation, 60% Tests and Quizzes, 10% Final Exam

C. Class Participation and Expectations:

Attend class equipped and prepared; turn in class work when assigned and on time; be attentive; take notes when appropriate.

D. Special Projects, Writing Activities, and Assessments

Unit test, quizzes, class work, homework, semester final, occasional projects.

E. Academic Dishonesty Policy

See policy in Student Handbook.

F. Late Work/Make-up Work

See policy in Student Handbook; late work will be accepted up to the end of the current unit.

G. Tutoring and Extra Help

Tutoring will be available both before and after school with a math teacher from either campus. A schedule of teachers and days will be posted.

Calendar Of Events/Tentative Schedule For Units Of Study