206 ALGEBRA II

COURSE DESCRIPTION

This course covers all of the topics in a traditional Algebra II course. The course focuses on the development of the following strands: problem solving, algebraic modeling, functions/graphing, systems of equations/inequalities, developing and following algorithms, probability, and mathematical reasoning. Emphasis is placed on understanding the connections between these strands and communicating mathematical concepts in a variety of ways.

ACADEMIC PLANNING

This course satisfies one of the four mathematics credits required for graduation.

PREREQUISITES: GEOMETRY FREQUENCY: SEMESTER/DAILY

STANDARDS: 2.2 Algebraic Concepts - C Functions

• 2.2.HS.C1-9: Functions

UNITS

- Polynomial Functions
- Functions
- Exponents
- Function Transformations
- Solving Polynomials

- Radicals
- Exponential Functions
- Rational Expressions
- Inequalities

OBJECTIVES

- Make sense of and persevere in solving complex and novel mathematical problems.
- Use effective mathematical reasoning to construct viable arguments and critique the reasoning of others.
- Communicate precisely when making mathematical statements and express answers with a degree of precision appropriate for the context of the problem/situation.
- Apply mathematical knowledge to analyze and model situations/relationships using multiple representations and appropriate tools in order to make decisions, solve problems, and draw conclusions.
- Make use of structure and repeated reasoning to gain a mathematical perspective and formulate generalized problem solving strategies.

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KEY RESOURCES

CK-12 and Edia

ASSESSMENTS & GRADING:

75% - Tests and Quizzes

15% - Classwork and Homework

10% - Midterm and Final Exam

ATTENDANCE POLICY

Twin Valley School District's attendance policy can be found in the <u>TVHS Student Handbook</u>.

ELECTRONIC DEVICE POLICY

Twin Valley School District's Electronic Device Policy can be found in <u>School Board Policy 237</u>. Additional information can be found in the <u>TVHS Student Handbook</u>.

ACCOMMODATIONS STATEMENT

The Twin Valley School District has a longstanding commitment to the inclusion of students requiring specially-designed instruction within the general education environment to the extent appropriate for the individual child. Twin Valley School District implements a co-teaching model at levels in which general and special education teachers plan and provide instruction within a general education class so that instruction is differentiated to meet the educational needs of all students. These co-taught classes increase learning opportunities and success within the least restrictive environment.

ACADEMIC POLICIES & PROCEDURES

Twin Valley School District values academic integrity. The following information regarding cheating/plagiarism can be found in the <u>TVHS Student Handbook</u>: "Students involved in cheating, plagiarism, and/or unauthorized copying of schoolwork or other educational material will receive no credit for the particular test or assignment, or other actions at the discretion of the teacher. More severe or involved offenses may result in disciplinary actions by the school administration." Additional High School Academic information can be found on their <u>Program of Studies Website</u>.