

Algebra 2 (Advanced course)

Knowledge Content

This course is mainly designed for students who wish to progress to higher-level AP or IB maths courses. Additional topics to those listed in the Algebra 2 (Standard course) are covered at an accelerated pace and greater depth. A wide range of topics are covered, including:

- Equations and Inequalities
- Linear Equations and Functions
- Systems of Linear Equations and Inequalities
- Matrices and Determinants
- Quadratic Functions
- Polynomials and Polynomial Functions
- Powers Roots and Radicals
- Exponential and Logarithmic Functions
- Rational Equations and Functions
- Trigonometric Ratios and Functions
- Probability and Statistics.

Skills Content

In relation to the topics listed above, students will develop skills that enable them to:

- Apply a wide variety of mathematical concepts, processes, and skills to solve a broad range of problems in mathematics and everyday situations
- Understand and apply basic and advanced properties of the concepts of numbers
- Understand and apply basic concepts of statistics and probability
- Use graphing calculators effectively and efficiently to define and solve various types of problems
- Use algebraic methods to represent, analyse, and solve abstract and practical mathematical situations.

Assessment

- Quizzes
- Tests
- Chapter tests
- Class participation
- Homework assignments.

Examinations

Two internal end of semester examinations (December and June).

Resources

– Larson, R., Boswell, L., Kanold, T.D. and Stiff, L., *Algebra 2*. Evanston, Illinois: McDougal Littell, 2001.

Prerequisites

Algebra 1 or equivalent.

Credits

One Credit.