Fairfax Collegiate

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Intro to Algebra II 9-12 Syllabus

Course Goals

1 Develop New Skills
Students develop their mathematical knowledge and abilities as they learn and practice new skills from their upcoming school year math course.

2 Review Prior Skills
Students gain confidence in their mathmatical abilities through practice and supportive feedback.

3 Build Confidence
Students become more confident in their mathematics abilities as they learn and practice both old and new topics, while having fun.

4 Make Connections
Students make connections between different mathematical topics, and between math and everyday situations that connect to the math they learn.

Course Topics

1 Functions
Students will identify the domain and range of a graphed function and on what intervals it is increasing and decreasing.

2 Quadratic Equations
Students will solve quadratic equations by factoring, square roots, and the quadratic formula.

3 Quadratic Functions
Students will graph quadratic functions in standard and vertex form. This topic also includes practical applications of quadratic functions.

4 Polynomial Functions
Students will classify polynomials, identify their function end behavior, and find their zeros and the multiplicity of each zero.

5 Exponents and Radical Expressions
Students will simplify, add, subtract, multiply, and divide radical expressions and use properties of exponents to simplify expressions.

6 Rational Expressions
Students will simplify, add, subtract, multiply, and divide rational expressions.

7 Series and Sequences
Students will identify arithmetic and geometric sequences, find their common difference or common ratio, compute terms in a sequence, and find the sums of arithmetic and geometric series.