

Mathematics and Science Course Descriptions

Mathematics Course Descriptions

Applied Algebra 1 CC

Topics include a review of fractions, decimals, percent and integers, number theory, basic operations with monomials and polynomials, solving multi-step equations, ratio and proportion, graphing linear equations, and problem solving techniques. Geometric topics such as angle relationships, classification of polygons, area, and volume will be introduced.

- **Evaluation:** Local final exam

Applied Algebra 2 CC

Topics include a review of skills learned in Applied Algebra 1 CC, basic operations with radicals, solving multi-step equations, solving systems of equations both linear and quadratic, factoring, graphing both linear, quadratic equations and exponential, probability, statistics, and problem solving techniques. Geometric topics such as angle relationships, surface area, and volume will be explored in greater detail.

- **Evaluation:** Local final exam or Algebra I CC Regents Exam

Algebra CC

This course covers all of the topics required to take the CC Algebra Regents exam, which is required by New York State for all students. Topics include number theory, basic operations with monomials, polynomials and radicals, solving multi-step equations, solving systems of equations both linear and quadratic, factoring, ratio and proportion, graphing both linear, quadratic equations and exponential, probability, statistics, and problem solving techniques. Geometric topics such as angle relationships, classification of polygons, surface area, and volume will be explored in greater depth.

- **Evaluation:** Local final exam or Algebra I CC Regents Exam

Geometry CC

Within this course, students will have the opportunity to make conjectures about geometric situations and prove in various ways, both formal and informal, that their conclusion follows logically from their hypothesis. This course is designed to employ an integrated approach to the study of geometric relationships. Integrating synthetic, transformational, and coordinate approaches to geometry, students will justify geometric relationships and properties of geometric figures. Congruence and similarity of triangles will be established using appropriate theorems. A major emphasis of this course will be to establish and verify geometric relationships. Properties of transformations, triangles, quadrilaterals, circles and basic trigonometry will receive particular attention.

- **Evaluation:** Local final exam or Geometry CC Regents Exam

Applied Geometry CC

This course is designed to expose the student to the fundamental principles of geometry. Topics covered will include basic terms of geometry, parallel and perpendicular lines, properties and relationships of triangles and quadrilaterals, an introduction to trigonometry, transformations and properties of a circle. Geometric proofs will be incorporated within each unit.

- **Evaluation:** Local final exam

Intermediate Algebra

This course covers algebra topics such as factoring, exponents, radicals, operations with algebraic fractions, quadratic/absolute value/radical/fractional equations, inequalities, complex fractions, parabolas, operations in the complex system, and systems of equations. The course will also cover topics such as basic trigonometric ratios/applications, transformations, and probability and statistics.

- **Evaluation:** Local final exam

Algebra 2 CC

Building on their work with linear, quadratic, and exponential functions students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms.

- **Evaluation:** Local final exam or Algebra II CC Regents Exam

Science Descriptions – next page.

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Science Course Descriptions

Living Environment 1

Topics covered include ecology, unity and diversity among living things, maintenance of living things, and human physiology.

- **Evaluation:** Local final exam

Living Environment 2

Topics covered are reproduction and development, genetics, and evolution.

- **Evaluation:** Living Environment Regents Exam

Living Environment

Topics covered include ecology, unity and diversity among living things, maintenance of living things, human physiology, reproduction and development, genetics and evolution.

- **Evaluation:** Living Environment Regents Exam

Earth Science *

The application of earth science concepts and skills such as observation, measurement, graphing, mapping, and classification are emphasized. Topics include geology, weather, energy in the earth, pollution problems, and motions of earth and stars.

- **Evaluation:** Earth Science Regents Exam

Chemistry

This course presents a modern view of chemistry using problem-solving approaches and mathematical skills.

- **Evaluation:** Chemistry Regents Exam

***All students taking the Earth Science Regents Exam must take the performance test.** A student who does not take the performance test will not be allowed, under any circumstances, to take the Regents Exam. Those students who are only taking the Walk-in Regents Exam will have to take the performance test on Monday, August 12, 2019, at Proctor High School. A letter will be sent to the student's home address indicating the time they must report for the performance test.