9th Grade Math Course Descriptions

Algebra Readiness (Grade 9)

This is a remedial course for freshmen students who are not ready to take Algebra I. The course includes the study of the pre-algebraic skills and concepts described in the Mathematics Framework for California Public Schools. The nine topics covered are whole numbers, operations on whole numbers, rational numbers, operations on rational numbers, symbolic notation, equations and functions, the coordinate plane, graphing proportional relationships, and algebra. Elective credit earned for this course will not count towards the Math graduation requirement.

ALGEBRA I (Graduation Requirement; Grades 9, 10, 11, 12)

Algebra I is the first-year of the college-preparatory mathematics sequence. Class includes the study and operation of real numbers, solving equations, graphing, factorization, quadratic functions, and real-world problem solving.

Algebra Support (Grades 9, 10)

This class is offered in conjunction with Algebra I. It is intended for students whose skills are below grade level. It provides a variety of support for the Algebra I curriculum including a review of prerequisite skills and review activities that enhance the learning of Algebra. Elective credit earned for this course will not count towards the Math graduation requirement.

GEOMETRY (Grades 9, 10, 11, 12)

Prerequisite: Completion of Algebra I with a grade of C or better or department recommendation. Open to 9th-graders that have earned a B or better in a formal full-year algebra course in the 8th grade.

Geometry is a rigorous college-prep course required by all 4-year colleges. Geometrical concepts are discovered by and taught to students through guided lessons. Topics covered include inductive and deductive reasoning, angles, polygons, congruent triangles, constructions, circles, right triangles, similarity, solids, logic, and introductory trigonometry.

A.S. ALGEBRA II (Grades 9, 10, 11)

Prerequisite: "B" or higher in Geometry

A math elective, Advanced Standing Algebra II is a **challenging** college-prep class. Concepts and skills from Algebra I are taken to a more sophisticated level and several new topics are introduced. Students develop skills as well as an understanding of the applications of linear, quadratic, exponential and logarithmic equations, determinants, systems of equations, exponential and logarithmic functions, conic sections, series and probability. Special emphasis is placed on mathematical modeling.

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Math Department Comments

The math department is flexible and willing to try to meet the needs of each individual student within the parameters of school and district policy. If you have questions, please contact Michele Breen, Math Department Chair at mbreen@seq.org or Gregg Whitnah, Math Department Co-Chair, at gwhitnah@seq.org.

Sequoia Union High School District Policy:
*While the Sequoia Union High School District will accept the acceleration of students through a **WASC accredited, UC approved online or summer program,** not all summer or online courses are of similar quality. Sequoia Union High School District students who take Geometry or Algebra during the school year receive 139 hours of classroom instruction and do an average of 30 minutes of homework for each hour of instruction, for a total of 208.5 hours. Because some online and summer courses offer much less instructional time and lack the advantage of a classroom instructor who is able to re-teach and offer individual support in the moment, students participating in abbreviated programs will be at a disadvantage when proceeding through a four-year high school math pathway.*

The M-A Math department supports the SUHSD acceleration policy. We strongly discourage students from trying to accelerate levels over the summer. School-year classroom instruction helps to promote the foundations of successful mathematical practices and skills.