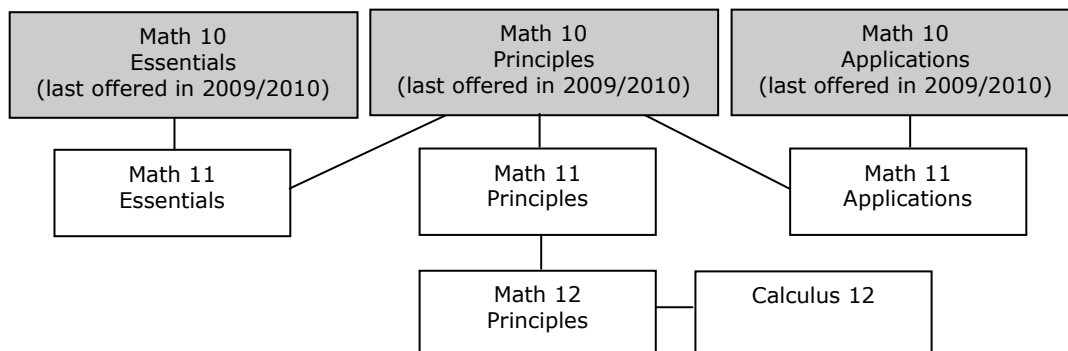


MATHEMATICS

GRADE 11 & 12 STUDENTS (GRADUATES OF 2011 & 2012):

Regardless of career plans every student benefits from a basic background in Mathematics that teaches computational skills, problem solving, and analytical thinking. Seycove offers a flexible math program, giving students of all grades and levels opportunities for success. Completion of Principles of Math 11, Applications of Math 11, or Essentials of Math 11 satisfies graduation requirements. Principles of Math 11 & 12 and Calculus 12 challenge those students pursuing Mathematics related careers. Principles of Math 11 is required for direct entry to many university programs.



Related Focus Areas: Trades and Technology, Science and Applied Science, Health and Human Service, Business and Applied Business

COURSES**MATHEMATICS 11 - PRINCIPLES (MA11)**

Principles of Mathematics 11 is a very demanding course and is primarily designed for students who are pursuing a university or college education. It is a prerequisite for Mathematics 12 Principles and Calculus. Mathematics 11 Principles builds on concepts introduced in Mathematics 10 Principles. The main topics are quadratic equations, geometry, linear inequalities and recognizing and manipulating different types of functions. Students attaining less than a C+ average in Principles 10 may want to consider Applications 11 or Essentials 11.

MATHEMATICS 11 - APPLICATIONS (AMA11)

The course content for Applications of Mathematics 11 is similar to that of Principles of Mathematics 11. The two courses vary chiefly in the extent to which the underlying mathematical theory is explored. Applications 11 focuses on practical uses of the topics studied. The pace of Applications 11 is slower to allow students more time to understand the concepts and to make connections between the mathematical ideas and various applications. Topics include creating and analyzing graphs, study of linear and non-linear functions, linear inequalities, financial math and circle geometry. There is a significant problem-solving component as the name of the course suggests. Students should be aware that Applications 11 will not replace Principles 11 for university entrance. A graphing calculator is required.

MATHEMATICS 11 - ESSENTIALS (EMA11)

This course consists primarily of career and personal planning mathematics. Related topics include income and debt, measurement technology, owning and operating a vehicle and personal income tax. The mathematical aspects of the course include relations, formulas and applications of probability. All of the above topics are studied using a problem-solving approach. A scientific calculator is required. Students cannot proceed directly from Essentials of Mathematics 11 to Principles of Mathematics 11. Essentials 11 satisfies the graduation math entrance requirement at Capilano University and UNBC (Faculties of Arts, Science, and Commerce only).

MATHEMATICS 12 - PRINCIPLES (MA12)**(Provincial Exam - Optional)**

Principles of Mathematics 12 includes the following topics: trigonometry, quadratic relations, exponential and logarithmic functions, sequences and series, permutations and combinations, and probability. Evaluation is based primarily on unit tests and the final examination. This is a challenging course designed for students who will proceed to post-secondary courses in Mathematics, Science or Business. Four hours of homework per week will be expected. Higher-level thinking skills (i.e. solving non-routine problems) comprise 25% of the course. A C+ or higher in Mathematics 11 is strongly recommended. A graphing calculator is required.

CALCULATOR POLICY:

The provincial final exam for Principles of Mathematics 12 requires the use of a graphing calculator. Students are strongly urged to purchase their own personal graphing calculator early in the course so that they can become familiar with its use in class and with homework. The Mathematics Department recommends the TI-83+ or TI84 graphing calculator (Texas Instruments). Students with other types and models of graphing calculators will be at a disadvantage because the textbook and provincial exam are based on Texas Instrument calculators.

MATHEMATICS 12 - CALCULUS (CALC12)

This course is designed to provide students with a foundational understanding of calculus so that they are better able to succeed in Calculus at the college or university level. Topics include limits of functions, continuity as a property of a function, derivatives, applications of derivatives, methods of integration, and applications of integration. Assessments include assignments, quizzes, and tests and a final exam in June. Students must have a TI83 or TI84 graphing calculator.