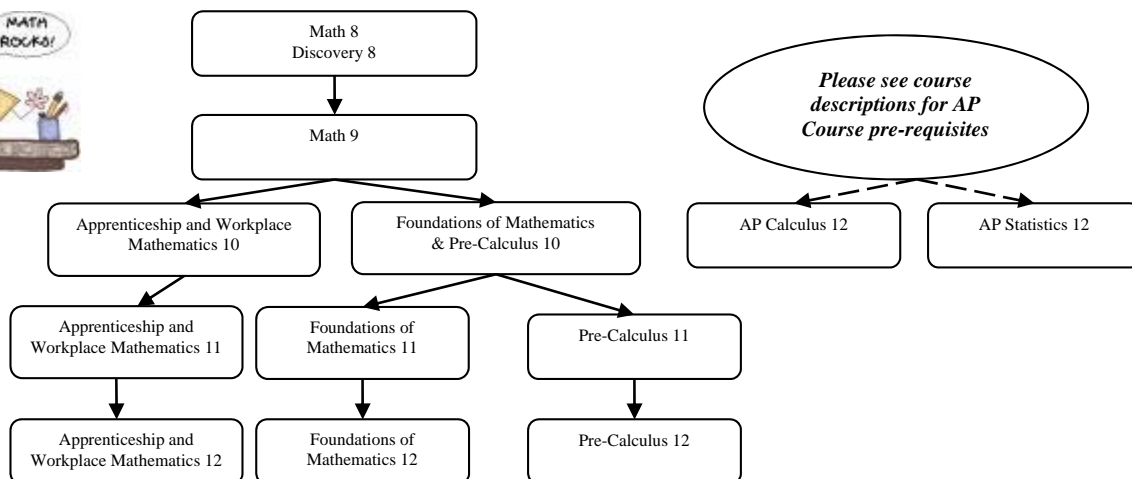


Mathematics



SCIMATICS 8 (Mathematics and Science cohort)

Students will take Math and Science from the same teacher. The course will utilize a variety of learning strategies including laboratory work, projects, and individual and small group work. Students will also receive several field experiences to enhance their learning in both curricular areas. Math topics will include algebra, geometry, graphing, and an introduction to trigonometry, while the Science component will include: cells and systems, optics, fluids and dynamics, and water systems on Earth.

DISCOVERY SCIMATICS 8 HONOURS (Math and Science Honours)

The Alpha Discovery program is an accelerated honours program. It is designed for students who are interested in and capable of pursuing a more challenging course of study. Classroom instruction and activities focus on the examination of broad themes or ideas that are relevant to many areas of study in both Science and Mathematics. Students will cover the Science 8 and Science 9 curriculum in one year. The Math 8 curriculum will be covered with in-depth enrichment exercises. Hands-on classroom activities, and projects are significant) and guest presenters are significant components of the program. This course may include dissection of preserved or fresh biological specimens. If you have any questions or, if for any reason you would prefer your son or daughter not participate in this experience, please contact the classroom teacher.

FOUNDATIONS OF MATH 9

This is the standard Mathematics course for entrance into all three of the senior mathematics pathways. The course includes the study of algebra, geometry and graphing, and an introduction to trigonometry.

FOUNDATIONS OF MATH HONOURS 9

This course has the same learning outcomes and texts as the Principles and Foundations courses but also include a significant enrichment component. Students explore non-routine problems and prepare to participate in Mathematics competitions.

FOUNDATIONS OF MATH & PRE-CALCULUS 10

This course is intended for students who wish to continue their education after graduation in the fields of Science, Engineering, Language Arts, Fine Arts and other courses offered at post-secondary degree and diploma granting institutions. The basis of this course is both theoretical and applied mathematics focussing on algebra, number systems, relations and functions, and measurement. (The Honours course includes an enrichment component). *This course has a compulsory provincial exam that is worth 20% of the mark.*

FOUNDATIONS OF MATH & PRE-CALCULUS 10 HONOURS

This course is intended for students who wish to continue their education after graduation in the fields of Science, Engineering, Language Arts, Fine Arts and other courses offered at post-secondary degree and diploma granting institutions. The basis of this course is both theoretical and applied mathematics focussing on algebra, number systems, relations and functions, and measurement. (The Honours course includes an enrichment component). *This course has a compulsory provincial exam that is worth 20% of the mark.*

APPRENTICESHIP & WORKPLACE MATHEMATICS 10

Through more exploratory and real-world applications, this pathway introduces concepts of measurement systems, number systems and algebra. The intent for this course is to provide a strong basis of numerical knowledge for those wishing to continue their post-secondary education in apprenticeship and trade institutions. Apprenticeship and Workplace Mathematics 11 meets the graduation requirements as set out in Ministry of Education documents. *This course has a compulsory provincial exam that is worth 20% of the mark.*

FOUNDATIONS OF MATHEMATICS 11

Foundations of Mathematics is intended for students who wish to continue their post-secondary education in Language Arts or Fine Arts. It has a focus on measurement, relations and functions, algebra and number systems. Foundations of Mathematics 11 completes the graduation requirements for Mathematics.

PRE-CALCULUS 11

Pre-calculus 11 provides students with opportunities to explore the concepts introduced in Foundations and Pre-Calculus Math 10 in more depth. This course is intended for students who are interested in enrolling in such programs as business, science, engineering and human kinetics. Students studying this course experience a rigorous analysis of all the elementary functions, number systems, curve-sketching and algebra and those who successfully master the course content may register to take Pre-Calculus 12.

APPRENTICESHIP & WORKPLACE MATHEMATICS 11

This pathway is strongly recommended for students who are planning on entering the workforce directly after high school, or who are planning on pursuing a career in the trades industries. It provides a practical, contextual focus that encourages students to develop their mathematical knowledge, skills, and attitudes in the context of their lives and possible careers. Topics covered include trigonometry, rate of change, graphical analysis, geometry, measurement, banking and budgets. This course satisfies the Ministry of Education's mathematics graduation requirement

FOUNDATIONS OF MATHEMATICS 12

This course is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in the arts or the humanities. Topics in this course involve the study of puzzles, compound interest and investment portfolios, set theory, probability, polynomial exponential logarithmic and sinusoidal functions, current events in math.

PRE-CALCULUS 12

This course is for students who will study calculus in a post-secondary institution in such areas as Mathematics, Sciences, or Engineering. This course includes the following topics: combinatorics, binomial expansion, composite functions, transformations of graphs, exponential and logarithmic functions, polynomial factoring, radical and rational functions, trigonometry, equations and identities.

AP CALCULUS 12 AB

A.P. Calculus is a university level calculus course. This course is intended for students who are concurrently taking, or have completed, Mathematics 12. Topics include differentiation, integration and their applications. The pre-requisite is Pre-Calculus 11 and the student must either have already completed Pre-Calculus 12 or be taking it concurrently.

AP STATISTICS 12

In colleges and universities, a large number of students take a statistics course. Courses similar to AP. Statistics are required for study in such fields as business, the social sciences, and health sciences. Knowledge of statistics is required for students intending to do research. A.P. Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Pre-requisite is Foundations of Mathematics and Pre-Calculus 10 or Pre-Calculus 11.

APPRENTICESHIP & WORKPLACE MATHEMATICS 12

This course is specifically designed to provide students with the mathematical understandings and critical-thinking skills identified for a career in the trades industries, or for direct entry into the work force. Topics include the following topics: purchasing vehicles, small business liability, polygons, geometric transformations, number puzzles, precision and accuracy of instruments, probability, linear relations, central tendency, sine and cosine law.