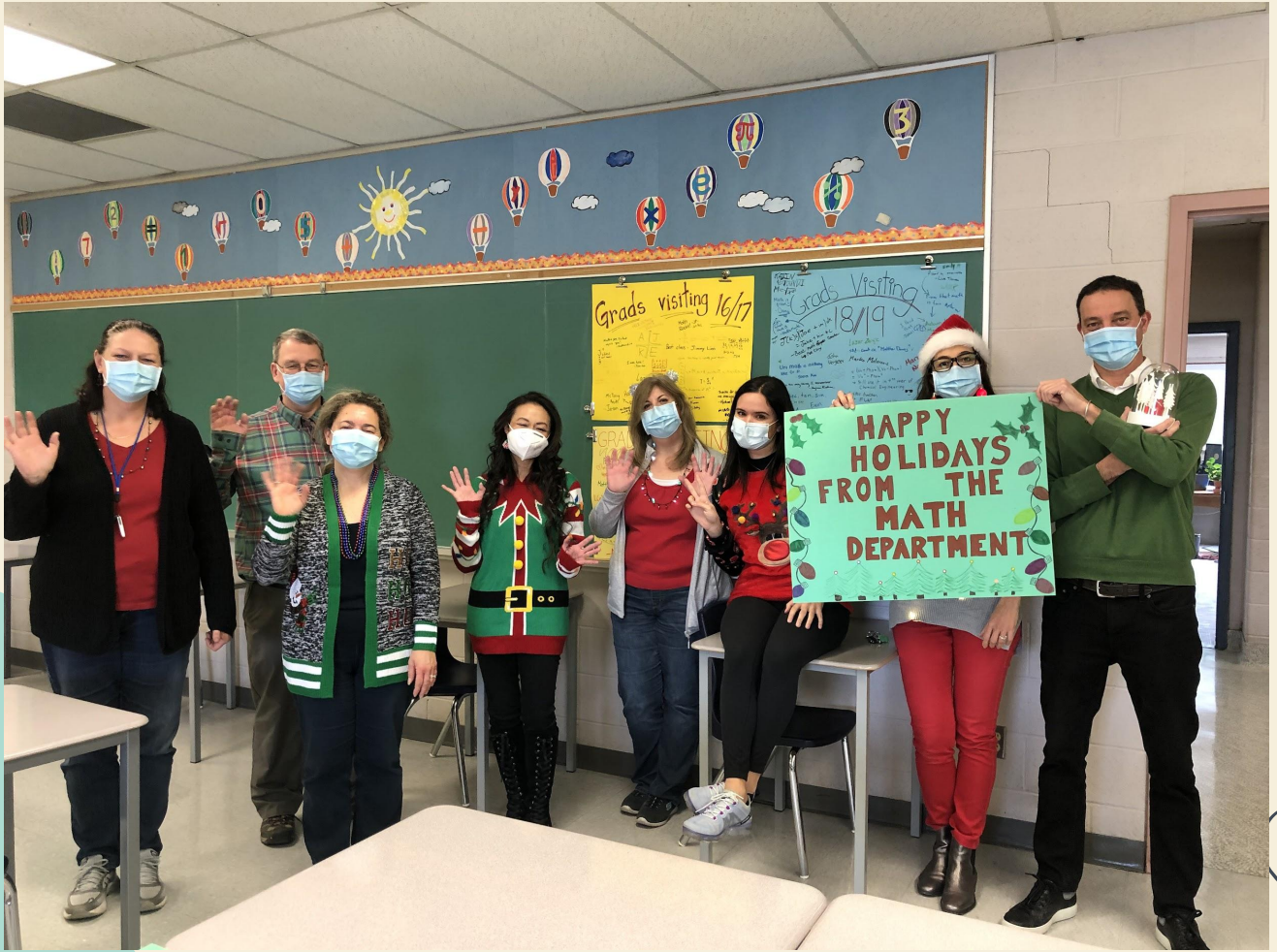
Welcome to the Mathematics Department!

CURRICULUM NIGHT


Grads visiting 16/17
Grads Visiting 18/19
HAPPY HOLIDAYS FROM THE MATH DEPARTMENT

MATH CURRICULUM

SPECIFIC CURRICULUM INFORMATION CAN BE FOUND ON THE MINISTRY OF EDUCATION ONTARIO WEBSITES

The descriptions provided in these slides are summarized/abbreviated.

http://www.edu.gov.on.ca/eng/curriculum/secondary/math.html

The 2021 curriculum documents are found at

https://www.dcp.edu.gov.on.ca/en/curriculum/secondary-mathematics

Grade 9 and 10

There are two levels in grades 9 and 10 math:

Locally developed and academic pathway/destreamed

Locally Developed 9

DEVELOPING AND CONSOLIDATING MONEY SENSE

DEVELOPING AND CONSOLIDATING CONCEPTS IN MEASUREMENT

DEVELOPING CONCEPTS IN PROPORTIONAL REASONING

Grade 9 Math MTH1W1

This course enables students to consolidate, and continue to develop, an understanding of mathematical concepts related to number sense and operations, algebra, measurement, geometry, data, probability, and financial literacy.

Locally Developed 10

Extending Money Sense

Extending Understanding of Measurement

Extending Understanding of Proportional Reasoning

Grade 11 Functions MCR3u1

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; investigate inverse functions; and develop facility in determining equivalent algebraic expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems. Prerequisite: Principles of Mathematics, Grade 10, Academic

Functions and Applications, Grade 11 University/College Preparation MCF3M

This course introduces basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric, and exponential functions and their use in modelling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

Foundations for College Mathematics, Grade 11 College Preparation MBF3C

This course enables students to broaden their understanding of mathematics as a problemsolving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; develop their ability to reason by collecting, analysing, and evaluating data involving one variable; connect probability and statistics; and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve problems and communicate their thinking. Prerequisite: Foundations of Mathematics, Grade 10, Applied

Mathematics for Work and Everyday Life, Grade 11 Workplace Preparation MEL3E

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will solve problems associated with earning money, paying taxes, and making purchases; apply calculations of simple and compound interest in saving, investing, and borrowing; and calculate the costs of transportation and travel in a variety of situations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

Advanced Functions, Grade 12 University Preparation MHF4U

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students taking the Calculus and Vectors course as a prerequisite for a university program and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs.

Calculus and Vectors, Grade 12 University Preparation MCV4U1

This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors and representations of lines and planes in threedimensional space: broaden their understanding of rates of change to include the derivatives of polynomial, sinusoidal, exponential, rational, and radical functions: and apply these concepts and skills to the modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who choose to pursue careers in fields such as science, engineering, economics, and some areas of business, including those students who will be required to take a university-level calculus, linear algebra, or physics course. Note: The new Advanced Functions course (MHF4U) must be taken prior to or concurrently with Calculus and Vectors (MCV4U).

Mathematics of Data Management, Grade 12 University Preparation MDM4U

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analysing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. Students planning to enter university programs in business, the social sciences, and the humanities will find this course of particular interest. Prerequisite: Functions, Grade 11, University Preparation, or Functions and Applications, Grade 11, University/College Preparation

Foundations for College Mathematics, Grade 12 College Preparation MAP4C

This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyse data using statistical methods; solve problems involving applications of geometry and trigonometry; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades. Prerequisite: Foundations for College Mathematics, Grade 11, College Preparation, or Functions and Applications, Grade 11, University/College Preparation

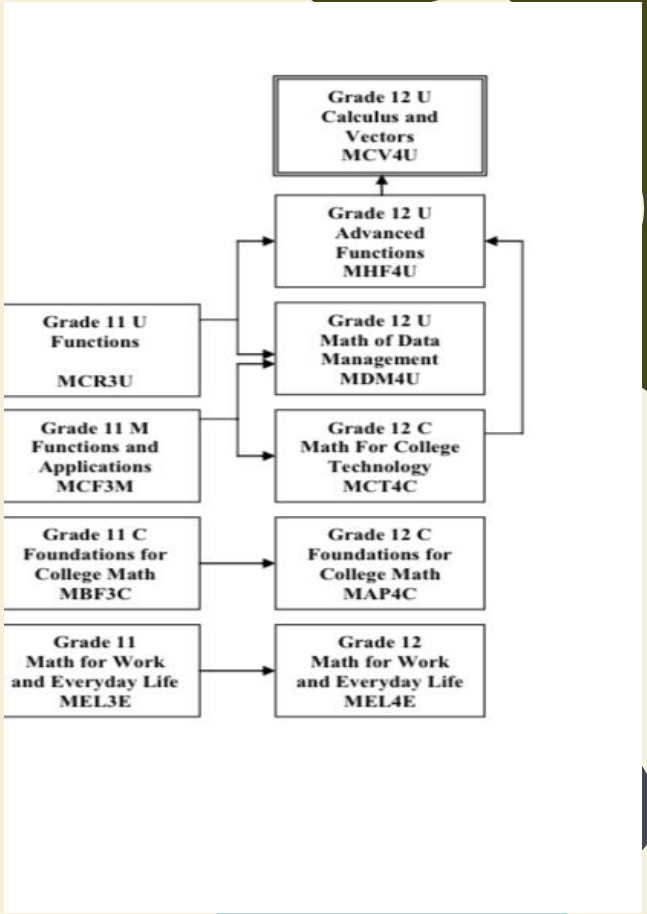
Mathematics for Work and Everyday Life, Grade 12 Workplace Preparation MEL4E

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will investigate questions involving the use of statistics: apply the concept of probability to solve problems involving familiar situations: investigate accommodation costs, create household budgets, and prepare a personal income tax return: use proportional reasoning: estimate and measure: and apply geometric concepts to create designs. Students will consolidate their mathematical skills as they solve problems and communicate their thinking. Prerequisite: Mathematics for Work and Everyday Life, Grade 11, Workplace Preparation

Which math courses to take in grade 11 or 12?

Recommendations for which courses to take for post-secondary education can be found on post-secondary websites.

Guidance can also help you!



ECI Mathematics Department is here to help!

The mathematics department provides extra help and support throughout each year!

Questions?

Still have questions?

Students can drop by Room 232 and ask Ms Tzeng, ACL of Mathematics at ECI
Parents/guardians can email: Margaret.tzeng@tdsb.on.ca and ask for a phone call