Cameron Heights Collegiate Institute

301 Charles Street E., Kitchener, Ontario N2G 2P8 (519)-578-8330 www.chci.wrdsb.on.ca

Subject	Grade	Level	Code	Prerequisite
Mathematics	11	University/ College	MCF3MI	10 Academic or 10 Applied

Course Description

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.

Ministry Website

http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf

	Unit of Study	Overall Expectations (essential understandings)	Assessment
70%	**Quadratic Functions**	• Demonstrate an understanding of functions, and make connections between the numeric, graphical, and algebraic representations of quadratic functions • Solve problems involving quadratic functions, including problems arising from real-world applications	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
	Quadratic Equations	• Expand and simplify quadratic expressions, solve quadratic equations, and relate the roots of a quadratic equation to the corresponding graph	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
	Trigonometry	• Solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
	Exponential Functions	• Identify and represent exponential functions, and solve problems involving exponential functions, including problems arising from real-world applications	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
	Periodic Functions	• Demonstrate an understanding of periodic relationships and the sine law function, and make connections between the numeric, graphical and algebraic representations of sine functions	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
	Financial Applications	• Demonstrate an understanding of compound interest and annuities, and solve related problems	• Variety of formative assessments in the form of quizzes and assignments (~1-2%) • Summative unit test (~10%)
30%	**Final Exam**	• Will include all of the overall expectations listed within the units of study	• Summative Final Exam (30%)