



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	12	College	MAP4CI	Grade 11

Course Description

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.

Ministry Website

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

	Unit of Study	Overall Expectations (essential understandings)	Assessment
70%	Geometry	<ul style="list-style-type: none"> Solve problems involving measurement and geometry and arising from real-world applications; Explain the significance of optimal dimensions in real-world applications, and determine optimal dimensions of two-dimensional shapes and three-dimensional figures; 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Exponents	<ul style="list-style-type: none"> Evaluate powers with rational exponents, simplify algebraic expressions involving exponents, and solve problems involving exponential equations graphically and using common bases; 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Graphical and Algebraic Modelling	<ul style="list-style-type: none"> Describe trends based on the interpretation of graphs, compare graphs using initial conditions and rates of change, and solve problems by modelling relationships graphically and algebraically Make connections between formulas and linear, quadratic, and exponential relations, solve problems using formulas arising from real-world applications, and describe applications of mathematical modelling in various occupations 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Financial Mathematics	<ul style="list-style-type: none"> Gather, interpret, and compare information about owning or renting accommodation, and solve problems involving the associated costs; Design, justify, and adjust budgets for individuals and families described in case studies, and describe applications of the mathematics of personal finance. 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Annuities	<ul style="list-style-type: none"> Demonstrate an understanding of annuities, including mortgages, and solve related problems using technology; 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Trigonometry	<ul style="list-style-type: none"> Solve problems using primary trigonometric ratios of acute and obtuse angles, the sine law, and the cosine law, including problems arising from real-world applications, and describe applications of trigonometry in various occupations. 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
	Statistics	<ul style="list-style-type: none"> Collect, analyse, and summarize two-variable data using a variety of tools and strategies, and interpret and draw conclusions from the data; Demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations. 	<ul style="list-style-type: none"> Variety of formative assessments in the form of quizzes and assignments Summative unit test (~10%)
30%	Final Exam	<ul style="list-style-type: none"> Will include all of the overall expectations listed within the units of study 	<ul style="list-style-type: none"> Summative Final Exam (30%)