



MISSISSAUGA SECONDARY SCHOOL

Grade 12 Calculus and Vectors

Course Overview

Course Code: MCV4U0

Credit Value: 1.0

Pre-requisite: MHF4U0

Resource: Calculus and Vectors 12
Workbook
(\$10 replacement)

Course Description:

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 three-dimensional 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 modeling 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.*

Course Breakdown:

Unit 1: Geometry and Algebra of Vectors

Unit 3: Derivatives and Their Applications

Unit 2: Rate of Change

Evaluation Breakdown:

70% (Term)	Knowledge & Understanding:	25%	The following assessment & evaluation instruments may be utilized to evaluate students on the four categories of knowledge and skill: <ul style="list-style-type: none"> • Tests & Quizzes • Assignments • Projects & Presentations
	Application:	25%	
	Communication:	5%	
	T.I.P.S. : (Thinking, Inquiring, Problem Solving)	15%	
30% (Summative)	Final Exam:	30%	
<p><u>Note:</u> The following Learning Skills will be assessed and recorded on the student's report card:</p> <p>• <i>Working Independently</i> • <i>Organization</i> • <i>Teamwork</i> • <i>Work Habits/Homework</i> • <i>Initiative</i></p>			

* For more information, please refer to the Ontario Ministry of Education Grade 12 Curriculum Outline at:

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

Attendance & Punctuality:

Regular attendance to scheduled classes, and active participation in learning activities, will provide students with the experiences necessary to successfully complete this credit. Attending classes on time will ensure that there are no gaps in the student’s learning. Furthermore, it will also demonstrate commitment to learning, and respect for self & others. Please refer to the student agenda for more information regarding the Attendance and Punctuality Policy.

Homework:

Consistent homework completion is essential for student success. Although students will be given some class time to initiate their homework, they should expect an average of 30 minutes of homework each night. At the beginning of each unit or chapter, students will be given a homework outline. Consequently, students will have the opportunity to plan effectively, manage time efficiently, and work ahead, if possible. Lastly, homework will be monitored periodically, according to your teacher’s instruction.

Missed Evaluation:

Students will be given ample notice regarding the scheduled date for an evaluation. Students who know ahead of time that they will be absent for the evaluation, must discuss the situation with their teacher **beforehand**. Students who are unexpectedly absent for an evaluation for a legitimate reason (i.e. illness) must provide their teacher with a Mississauga Secondary School, Math Department, “REASON FOR ABSENCE” Form, which is available online at the course Angel site, as well as the MSS website (www.msslions.ca). A **completed** form must be submitted to your teacher **upon return**. All completed forms will be retained on file. If approved, the student will be given an opportunity to write an alternate evaluation on the immediate Thursday, during the student’s lunch period, in the specified classroom. For more details, please refer to the Math Department Information Board, which is located in the Math Forum area between Rooms 303 & 304.

Deadlines:

Students will be given ample notice regarding due dates for assignments. Students are expected to submit work to their teacher **on time**. Please refer to the student agenda for more information concerning the Deadlines Policy.

Extra Help:

Extra help is available to the student in many forms. Firstly, students are encouraged to seek assistance from their teacher, at the appropriate time during the regularly scheduled class. If further assistance is required, students may meet with their teacher during the office time specified by their teacher. **Please record it below**.

Teacher Name: _____	<u>Teacher Assistance Availability:</u>				
	Mon. _____	Tues. _____	Wed. _____	Thur. _____	Fri. _____
	OR				
	Day 1: _____	Day 2: _____	Day 3: _____		
(Complete above as directed by your teacher)					

I have read the Course Overview for MCV4U0.

Student Signature

Parent/Guardian Signature