



Northern Collegiate Institute and Vocational School

940 Michigan Ave, Sarnia On. Tel. (519) 542-5545

COURSE STATEMENT: MCV 4U

Welcome to MCV 4U. This is a summary sheet for parents / guardians and students which outlines our course evaluation and expectations.

Mission Statement

Northern Collegiate exists to provide students with opportunities to maximize their potential, gain self-worth and develop as contributing members of the community. We will achieve this by:

- promoting pride and responsibility
- ensuring relevant programs
- communicating openly and clearly
- modeling ongoing learning
- forming community partnerships

<u>TEXT:</u>	<u>Calculus and Vectors 12</u> , Erdman et al; McGraw-Hill Ryerson
<u>Course Name:</u>	<u>Calculus and Vectors, Grade 12, University Prep</u>
<u>Course Code:</u>	<u>MCV 4U</u>
<u>Credit Value:</u>	<u>1.0</u>
<u>Ministry Document:</u>	<u>The Ontario Curriculum Grades 11 and 12: Mathematics</u>
<u>Development Date:</u>	<u>2007</u>

Course Description:

This course builds on students' previous experience with functions and their developing an 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.

Note: The new Advanced Functions course (MHF4U) must be taken prior to or concurrently with Calculus and Vectors (MCV4U).

Overall and Specific Curriculum Expectations:

Refer to the Ministry of Education document entitled The Ontario Curriculum Grades 11 and 12: Mathematics which is available in the main office, from your teacher, or on the Ministry of Education website <http://www.edu.gov.on.ca/eng/curriculum/secondary/math.html>.

Course Content:

The Grade 12 university preparation course Calculus and Vectors is designed to prepare students for university programs, such as science, engineering, and economics that include a calculus or linear algebra course in the first year. Calculus is introduced in the Rate of Change strand by extending the numeric and graphical representation of rates of change introduced in the Advanced Functions course to include more abstract algebraic representations. The Derivatives and Their Applications strand provides students with the opportunity to develop the algebraic and problem-solving skills needed to solve problems associated with rates of change. Prior knowledge of geometry and trigonometry is used in the Geometry and Algebra of Vectors strand to develop vector concepts that can be used to solve interesting problems, including those arising from real-world applications.

Strands:

Rate of change, Derivatives and their Applications, and Geometry and Algebra of Vectors

Assessment and Evaluation:

There are four achievement categories of knowledge and skills that encompass all the curriculum expectations in the Ontario Curriculum for MHF 4U. The four categories and their value for the term are as follows:

Knowledge	30%
Thinking	20%
Communication	20%
Application	30%

Formative Assessment will be ongoing and is intended to provide students with feedback for improvement.

The breakdown of your mark will be based on your level of achievement as follows:

Term Work – 70%

The above achievement categories will be used to evaluate assessment activities.

Exam / Culminating Activity – 30%

Learning Skills

Provincial Report Cards will be marked with each student's performance in the five Learning Skills areas:

1. **Responsibility** 2. **Organization** 3. **Independent Work** 4. **Collaboration** 5. **Initiative** 6. **Self-Regulation**

These Learning Skills will be assessed regularly by your teacher. They are an important statistic to understand how well students perform in the class. These are not considered in the determination of the final grade. For each of the Learning Skills one of the following achievement letters will be given:

E = Excellent

G = Good

S = Satisfactory

N = Needs Improvement

Absences, Lates and Missed Assignments:

Evaluation activities are due on the date or within the time frame specified by the teacher. If a student misses an evaluation, the missed evaluation will normally be due or completed on the day of the student's return to school. Extenuating circumstances may warrant an extension or assignment of an alternative evaluation activity at the teacher's discretion. **If an assignment is late, 10% may be deducted per school day, up to a maximum of 50%.** Where an extension is not warranted, a mark of zero may be assigned.

ACADEMIC HONESTY

Plagiarism is the act of using someone else's words or ideas as though they were one's own. Students must honestly and accurately acknowledge any use of the work and/or ideas of others, whether they use work directly, paraphrase it, or create new combinations. Professional judgment of the teacher is taken into account to determine the degree of academic dishonesty and appropriate consequences.

Grade 9 – Students will be given the opportunity to rewrite the assessment to a maximum of up to 75%.

Grade 10 – Students will be given the opportunity to rewrite the assessment to a maximum of up to 50%.

Grade 11 - A mark of zero will be assigned. There will be no opportunity for the assessment to be re-evaluated.

Grade 12 – A mark of zero will be assigned. There will be no opportunity for the assessment to be re-evaluated.

Appeals Process: Appeals will be requested through the teacher to the administration if the situation is not resolved.

LATE POLICY

The staff and students of NCIVS recognize that deadlines need to be in place to help students develop time management skills and strategies. Where in the teacher's professional judgment it is appropriate to do so, a number of strategies may be used to help prevent and/or address late and missed assignments. After many of these strategies have been implemented and documented the teacher may deduct marks for a late assignment.

Students are expected to submit all assignments within the time frame specified by the teacher. Teachers will consider extenuating circumstances when assignments are late. If an assignment is late, **10% MAY** be deducted per school day, up to a maximum of **50%**. Once assignments have been returned to students, any late submissions **MAY** receive a mark of zero or the student may be given an alternative assignment.

Please sign and return this to your teacher by _____. Should you have any questions or concerns, please contact the teacher at 519-542-5545.

I have read and understand the handout on course expectations and evaluation policies.

Student Signature: _____ Parent/Guardian Signature: _____

Date: _____ Date: _____