

**CATHOLIC DISTRICT SCHOOL BOARD OF EASTERN ONTARIO  
NOTRE DAME CATHOLIC HIGH SCHOOL**

**COURSE TITLE:** Calculus and Vectors  
**COURSE CODE:** MCV 4U

**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 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)

**UNITS OF STUDY/STRANDS** (not necessarily covered in this order)

- Rate of Change
- Derivatives and Their Application
- Geometry and Algebra of Vectors

**COURSE EVALUATION:**

Student Achievement will be based on individual demonstration for specific expectations. All major assignments will be evaluated using levels. For the purposes of reporting, the percentages grade range will correspond to the following levels as defined by the Catholic District School Board of Eastern Ontario:

Level	Mark Code	Level	Mark Code	Level	Mark Code	Level	Mark Code
4++	98/ 100						
4+	94	3+	79	2+	69	1+	59
4	86/ 90	3	75	2	65	1	55
4-	82	3-	72	2-	62	1-	52

**DETERMINING THE GRADE**

A student's overall grade will be obtained from the following:

**70% Summative Evaluation****Summative Evaluation:****Term Assessment Weighting**

All categories will be weighted equally

**70% Final Assessment Weighting**

Culminating Activity

Final Examination

**30%**

10

20

As per NDCHS policy, if the Culminating Activity and Final Exam are *not attempted*, no credit in this course will be granted.

**SCHOOL POLICIES****Late Assignment**

If a student fails to submit a summative assignment on the due date they will receive a completion contract. They will renegotiate a new due date with the subject teacher. The student will have their parent sign the contract and return it to the teacher the next day. If the contract is not returned, the classroom teacher will phone the parent. If the assignment gets submitted on the new date, the student

will receive a grade. If not, the student will report to study hall and the parent will be notified. If completed at a passable level, the assignment will receive a “pass”.

### **Academic Dishonesty**

If a student cheats on a test or plagiarizes a summative assignment, they will have to re-do the work in a supervised setting at their teacher’s convenience. The student will be notified and the vice-principal will create a file to track the incident. Should a second incident occur in any class, the student will receive a suspension and a grade of zero for that assignment.

### ***CLASSROOM EXPECTATIONS/STUDENT RESPONSIBILITIES:***

It has been shown that there is a direct relationship between effort and achievement. Mathematics is not a spectator sport and cannot be treated as such, therefore the student is expected to take responsibility for her/his achievement.

Each student in this math course is **expected** to:

1. Come to class with textbook, notebook, paper, **pencil**, eraser, ruler, **scientific** calculator.
2. Be on time for class. Lates contribute to lack of knowledge of the material presented, and may merit a detention.
3. Come to class wearing a complete uniform, as outlined under the school uniform guidelines.
4. Your homework should be attempted on a **regular** basis, properly identified in a well-maintained notebook. **Homework is essential to success in this course.**
5. Catch up on all work missed due to absence. This is **YOUR** responsibility.
6. Everyone has the right to silence while writing the test. There will be no talking during a quiz or test until everyone has finished. Talking to your peers, even if you are finished will result in a **zero** for that test.
7. Students are expected to be **present** for all their tests. Should a student be involved in a school approved extra-curricular activity on the day of the test, it becomes the **responsibility of the student** to inform the teacher **well in advance** so that arrangements may be made for a make-up test. Under no circumstances will a make-up test be given to a student who has skipped a test.
8. All tests, assignments (items submitted for evaluation) must be written in pencil (or typed) or it will **NOT** be evaluated, and may be required to be resubmitted.
9. Ask for help when experiencing any difficulty. I will willingly help you. I will have scheduled times available for extra help, please see me at the **start** of your difficulties.
10. **Any** missing assignment may affect your overall level of achievement

Students/ Parents/Guardians: Please be aware of the expectations set for your son/daughter in this course; both in and outside of the class time. Homework is a daily occurrence and is expected to be attempted. If you have any questions, please do not hesitate to contact me at Notre Dame: 253-4700 or via **email**. Cathy.Wyatt@cdsbeo.on.ca (see back note).

Sincerely,

*Cathy Wyatt*

