

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

COURSE TITLE:	Functions and Applications
COURSE CODE:	MCF3M
LEVEL OF DIFFICULTY:	University/College Preparation
SUGGESTED PREREQUISITE:	MPM 2D or MFM2P
NUMBER OF SCHEDULED HOURS:	110
FACILITATOR/WRITER	Mr. G. Cordick
DATE OF PREPARATION:	Feb 2007
MINISTRY GUIDELINES:	The Ontario Curriculum Grade 11 Revised, 2006
TEXTS:	Functions and Applications 11 (Nelson)

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 modeling 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.

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

- Quadratic Functions
- Exponential Functions
- Trigonometric Functions

COURSE EXPECTATIONS:

- expand and simplify quadratic expressions, solve quadratic equations, and relate the roots of a quadratic equation to the corresponding graph;
- demonstrate an understanding of functions, and make connections between the numeric, graphical, and algebraic representations of quadratic functions;
- solve problems involving quadratic functions, including those arising from real-world applications.
- simplify and evaluate numerical expressions involving exponents, and make connections between the numeric, graphical, and algebraic representations of exponential functions;
- identify and represent exponential functions, and solve problems involving exponential functions, including those arising from real-world applications;
- demonstrate an understanding of compound interest and annuities, and solve related problems.
- solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications;
- demonstrate an understanding of periodic relationships and the sine function, and make connections between the numeric, graphical, and algebraic representations of sine functions;
- identify and represent sine functions, and solve problems involving sine functions, including those arising from real-world applications.

How This Course Supports the Ontario Catholic School Graduate Expectations

This course encourages the Catholic learner to develop his/her God-given gifts and abilities to promote growth toward personal responsibility in preparation for a chosen career path. Throughout this course, emphasis should be placed on moral, ethical, and realistic decision-making in an effort to build responsible citizenship. The classroom environment should instill a spirit of cooperation, rather than competition amongst students, and foster a collaborative sense of community. This course provides many opportunities for students to work effectively as interdependent team members and to acknowledge and respect others for their opinions.

COURSE EVALUATION:

Course Assessment

Student Achievement will be based on the achievement chart categories outlined below and in individual demonstration for specific expectations. Achievement chart categories will be posted in the classroom for greater awareness and understanding of assessment. All major assignments will be evaluated using levels. Grades will be determined using the students' most consistent and most recent level of achievements. 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+	95-100	3+	77-79	2+	67-69	1+	57-59
4	87-94	3	73-76	2	63-66	1	53-56
4-	80-86	3-	70-72	2-	60-62	1-	50-52

The achievement chart identifies four categories of knowledge and skills in Mathematics: Knowledge, Thinking and Inquiry, Communication and Application. The achievement chart provides a standard province-wide method for teachers to use in assessing and evaluating their students' achievement. Each achievement chart has descriptions of the levels of achievement for each of the four categories of knowledge and skills. Level three is the provincial standard; level four indicated a level of aptitude beyond the standard; level two indicates the student is slightly below provincial standard; and level one indicates a limited understanding of material. The achievement chart helps determine, towards the end of the course, the student's most consistent level of achievement of the curriculum expectations as reflected in his or her course work.

POLICIES

Late Policy

Please see school website www.ndchs.com for the current late policy guideline.

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 parent 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.

Culminating Activity

A Culminating Activity provides an opportunity for students to synthesize and demonstrate the full breadth of their understanding of overall expectations. The task is completed over more than one class period, involves all four categories of the achievement chart, and is authentic and related to the "real world". Student work to be assessed must demonstrate individual achievement.

70% SUMMATIVE EVALUATION

Summative Evaluation:

Term Assessment Weighting

All categories will be weighted equally

30% CULMINATION

70%	Final Assessment Weighting	30%
	Culminating Activity	15
	Final Examination	15

CLASSROOM EXPECTATIONS:

1. Come to class with a binder, textbook, pencil, paper, and scientific calculator.
2. Be on time for class. Lates contribute to lack of knowledge of the material presented, may merit a detention.
3. Come to class wearing a complete uniform, as outlined under the school uniform guidelines. Uniform issues will be dealt with by administration. Your return to class will be considered a late for attendance purposes.
4. Keep the classroom in order; i.e. no writing on desks, **no food**, no school bags or jackets, and no interference with possessions of others or the school.
5. Maintain a notebook in a three ring binder. Notes should be dated, and homework identified and attempted.
6. Catch up on all work missed due to absence. This is **YOUR** responsibility.
7. All tests, assignments (items submitted for evaluation) must be written in **pencil** (or typed) or it will **NOT** be evaluated, and will be required to be resubmitted.
8. There is no talking during a test or quiz. Talking during this time period, even if you are finished will result in a zero.
9. Test days are important. There are **no** chances to re-write a test for illegitimate absences. If you'll be missing a scheduled test day for a school approved activity arrangements must be made in advance to schedule an alternate time to write the test.
10. Assignments are due right at the **beginning** of class of the established due date.
11. Ask for help when experiencing difficulty. I am always willing to help. Arrangements can be made for help at lunch hour or after school

I, _____ (student) have read and understood the expectations outlined in the Functions and Applications Outline.

Parents/Guardians: Please be aware of the expectations set for your son/daughter in this course. If you have any questions, please do not hesitate to contact me at Notre Dame: 253-4700 or via **email**. (see back note).

Sincerely,
Glen Cordick

Student Signature:

Parent/Guardian Signature: _____

Date: _____

Daytime Phone Number: _____

Comments: