**Our Lady of Lourdes Catholic High School**

**Course Overview**

**COURSE TITLE:** Functions and Applications, Grade 11, University/College Preparation

**COURSE CODE:** MCF 3M1

**CREDIT VALUE**: 1.0

**SCHOOL YEAR:** 2013-2014 Semester 1

**TEACHERS:** Mrs. L. Fry

**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; simplifying expressions; solve equations; and solve problems relating to applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**HOW THIS COURSE SUPPORTS THE ONTARIO CATHOLIC GRADUATE EXPECTATIONS**:

Students will apply Christian values to pose and solve problems, to make logical decisions, and to become critical thinkers who share their abilities for the benefit of all in their classroom and school community. A supportive mathematics classroom provides a caring and sensitive environment where the dignity and value of all students is respected and affirmed as they grow in confidence in their mathematical abilities. Mathematical investigations will promote a respect for God’s Creation and an understanding of the need to use resources wisely. Please see the Course Calendar / Agenda Book for a listing of the Ontario Catholic Graduate Expectations

**UNIT TITLES (Approximate Time and Sequence):**

|  |  |
| --- | --- |
| Quadratic Functions | 10 |
| Factoring Quadratic Expressions | 11 |
| Representing Quadratic Functions |  08 |
| Trigonometry |  08 |
| Sine Functions | 10 |
| Exponential Functions | 10 |
| Personal Finance Part I | 07 |
| Personal Finance Part II | 07 |

**EVALUATION**:

Evaluation is based on overall expectations of the course. These can be found at http:www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html

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| --- | --- |
| **COURSE GRADE WEIGHTING**:Term Work 70%Culminating Activity 30% (includes exam)  | **CATEGORY WEIGHTING:**Knowledge and Understanding 40%Thinking / Inquiry / Problem Solving 10%Applications / Making Connections 40%Communications 10% |

Students will be assessed using a variety of techniques: including: unit tests, quizzes, assignments, investigations and a formal final exam.

#### LATE/MISSED EVALUATI0NS

Students are expected to complete and/or submit all assessment and evaluation activities on the date determined by the teacher. **The teacher (and/or principal when necessary) will decide if a late activity will be accepted for evaluation purposes or only for formative assessment with no level/mark recorded for grading. Please refer to the student handbook regarding the late policy.**

**CHEATING AND PLAGIARISM:**

Please see information regarding this topic in the Catholic Student Planners.

**GENERAL COURSE INFORMATION**:

\_ Learning Skills: regular attendance, working independently, teamwork, organization, work habits, initiative, risk-taking, time-management, perseverance, questioning, curiosity and a love of learning are all essential to success in this course.

\_ A scientific calculator and graph paper are required.

# APPROPRIATE USE OF GRAPHING CALCULATORS

Students will be provided with graphing calculators to be used at school only. In keeping with Board Policy on Telecommunications: Any malicious attempt to harm or destroy the calculator is prohibited and may result in financial compensation and/or other disciplinary action consistent with the School Code of Behaviour, Board Policy and/or the Education Act. Likewise, **theft or loss, through negligence, of the calculator will result in a cost replacement by the student/parents of $150.00.**

## Graphing calculator number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Textbook number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PARENT / GUARDIAN / STUDENT SIGNATURE;**

My signature below indicates that I have read and understood the course overview.

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Parent / Guardian Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

**This signed course overview document must be kept in the student notebook.**

***If you have any questions or concerns please contact me at the school 836-2170 extension 103317 or email me at lfry@wellingtoncdsb.ca.***

Assessment Results:

Each student is asked to record his/her assessment results using the chart below. Parents/Guardians are encouraged to refer to this chart as one method of monitoring the student's progress. All unit tests/quizzes should be corrected by the student and kept in the student's notebook.

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| --- | --- | --- | --- | --- |
| Date / Item | K/U | Applications | Communication | TIPS |
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