St. Michael Catholic Secondary School

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We believe that each one, created in the image and likeness of God, is called by name into the Dufferin-Peel community to realize the Ontario Catholic School Graduate Expectations to the fullest extent possible as we all journey from the early years to vocation.

COURSE OUTLINE

Department:	Mathematics

Course:	Functions, Grade 11, University Prep
Course Code:	MCR3U1

Common Course Calendar	**Course Description:**
	This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; investigate inverse functions; and develop facility in determining equivalent algebraic expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems.
	Prerequisite: MPM 2D1 ~ The mathematics department highly recommends a minimum average of 65% or higher be obtained in all prerequisite courses.

Ministry/ICE Curriculum Documents Strand	Catholic Graduate Expectation Indicators for each Strand
Characteristics of Functions • Representing Functions • Solving Problems Involving Quadratic Functions • Determining Equivalent Algebraic Expressions **Exponential Functions** • Representing Exponential Functions • Connecting Graphs and Equations of Exponential Functions • Solving Problems Involving Exponential Functions **Discrete Functions** • Representing Sequences • Investigating Arithmetic and Geometric Sequences and Series • Sovling Problems Involving Financial Applications **Trigonometric Functions** • Determining and Applying Trigonometric Ratios • Connecting Graphs and Equations of Sinusoidal Functions • Solving Problems Involving Sinusoidal Functions	**An Effective Communicator who:** • Reads, understands and uses written materials effectively • Presents information and ideas clearly and honestly and with sensitivity to others **A Reflective and Creative Thinker who:** • Recognizes there is more grace in our world than sin and that hope is essential in facing all challenges • Thinks reflectively and creatively to evaluate situations and solve problems **A Self-directed, Responsible, Life Long Learner who:** • Demonstrates a confident and positive sense of self and respect for the dignity and welfare of others • Responds to, manages and constructively influences change in a discerning manner • Applies effective communication, decision-making, problem-solving, time and resource management skills **A Collaborative Contributor who:** • Develops one's God-given potential and makes a meaningful contribution to society • Achieves excellence, originality, and integrity in one's own work and supports these qualities in the work of others **A Responsible Citizen who:** • Acts morally and legally as a person formed in Catholic traditions • Accepts accountability for one's own actions

Assessment and Evaluation:

Category Weightings	Weight %
Knowledge/Understanding	30%
Application	30%
Thinking	20%
Communication	20%

Final Summative Assessments	Overall Weighting
Term Work	70%
Exam	30%

Learning Skills and Work Habits will also be assessed and reported on. For More information please refer to Growing Success pg. 11.http://www.edu.gov.on.ca/eng/policyfunding/growsuccess.pdf

Resources and Supplies Needed

►Textbook: Functions 11. Nelson. ISBN 0-17-633203-0

Please Note: Students are assigned a textbook at the beginning of the year. Each student is responsible for his/her assigned textbook and must return the assigned textbook in good condition at the end of the year. Failure to do so will result in a payment of **$120 cash, debit or credit card.**

►Scientific Calculator or NSpire CAS graphing calculator, Pencil, Eraser, Paper, Graph Paper, Binder

Please Note: The Math Department suggests that you invest in a graphing calculator to use in and out of the classroom. Prices vary, depending on where you purchase your calculator, however, if you invest in the graphing calculator now it will carry you through high school and college/university. Graphing calculators are available for in-class use for those students who do not purchase their own. Graphing calculator use on tests is at the discretion of the teacher.

Assessment and Evaluation Policy – additional details may be found in the student agenda book

►Student Absences

Regular attendance on the part of students is vital to the learning process. Teachers will not be able to measure the achievement of curriculum expectation of students who miss assessment and evaluation opportunities.

Type of Absence	Communication	Next Steps
Illness	The parent/guardian will contact the school as per the school's attendance policy indicating that he/she is aware of the missed evaluation.	On the day of his/her return, the student and teacher will make arrangements to address the missed evaluation in a timely manner.
Appointments	In advance, the student will advise the teacher of the upcoming absence which will be verified by the parent/guardian as per the school's attendance policy.	In advance, the student and teacher will make arrangements to make up the missed evaluation.
School-related	In advance, the student will advise the teacher of the upcoming school related absence.	In advance, the student and teacher will make arrangements to make up the missed evaluation.
Prolonged	The parent/guardian will advise the school of the prolonged absence as soon as possible.	In advance, where possible, the student and teacher, in consultation with the administrator, will make arrangements to address the missed evaluations.

In the event that the student does not make up the missed evaluation(s), a zero may be assigned.
If it is determined that the evaluation(s) has/have been missed as a result of a skip or truancy, a zero may be assigned.

The parent/guardian and student should review the student handbook for absences related to the 30% final and for any additional information.

►Submission of Assignments

Timelines for submission of assignments are established to encourage students to manage their time and to take responsibility for their learning. Timelines are also established to allow teachers to effectively deliver curriculum, support students, and manage the evaluation of assignments. It is important, therefore, that students work towards completing all assignments.

Due Date	Late Submissions	Closure Date
A due date is set by the teacher.	Once the due date has passed, a maximum 10% mark deduction may be used.	Once the closure date has passed, a zero may be recorded for assignments not submitted.
	The Learning skills section of the report card will reflect observations regarding late and missed assignments.	

►Homework Policy

Homework is assigned on a daily basis. Students and parents should expect a maximum of 20 minutes of homework a night.

Student success in math requires an ongoing review and practice of material. Extra help is available - ask your teacher how you can receive extra help.

Please feel free to contact the teacher at 905-951-8935

I have read the above information:

_____   _____

            Student Signature   Parent / Guardian Signature