

COURSE INFORMATION SHEET

DATE: SEPTEMBER , 2007
SECONDARY SCHOOL: Brebeuf College
DEPARTMENT HEAD: Mr. Michael Daoust
TEACHER: Mr. Philip Briganti
DEPARTMENT: Mathematics



CURRICULUM POLICY DOCUMENT			
COURSE TITLE	Functions	COURSE CODE	MCF3M1
PRE-REQUISITE	MPM 2D1	GRADE & TYPE	11Academic
FULL YEAR / SEMESTER	Semester	CREDIT VALUE	1

COURSE DESCRIPTION		
<p>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 modelling 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.</p>		
STRAND / UNIT TITLES	HOUR	OVERALL EXPECTATIONS / UNIT DESCRIPTION
QUADRATIC FUNCTIONS	50	<p>By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. expand and simplify quadratic expressions, solve quadratic equations, and relate the roots of a quadratic equation to the corresponding graph; 2. demonstrate an understanding of functions, and make connections between the numeric, graphical, and algebraic representations of quadratic functions; 3. solve problems involving quadratic functions, including problems arising from real-world applications.
EXPONENTIAL FUNCTIONS	30	<p>By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. simplify and evaluate numerical expressions involving exponents, and make connections between the numeric, graphical, and algebraic representations of exponential functions; 2. identify and represent exponential functions, and solve problems involving exponential functions, including problems arising from real-world applications; 3. demonstrate an understanding of compound interest and annuities, and solve related problems.

TRIGONOMETRIC FUNCTIONS	30	<p>By the end of this course, students will:</p> <ol style="list-style-type: none"> 1. solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications; 2. demonstrate an understanding of periodic relationships and the sine function, and make connections between the numeric, graphical, and algebraic representations of sine functions; 3. identify and represent sine functions, and solve problems involving sine functions, including problems arising from real-world applications.
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STUDENT EVALUATION CRITERIA

TERM – 70%		FINAL – 30%		FINAL REPORT CARD GRADE CALCULATION – 100%				
$10 \leq$ RELATIVE EMPHASIS / WEIGHTING ≤ 40		RELATIVE EMPHASIS / WEIGHTING		TERM TOTAL + FINAL TOTAL = CARD MARK				
KNOWLEDGE/UNDERSTANDING	22.5				TERM TOTAL + FINAL TOTAL = CARD MARK			
INQUIRY/THINKING	15					TERM TOTAL + FINAL TOTAL = CARD MARK		
COMMUNICATION	10						TERM TOTAL + FINAL TOTAL = CARD MARK	
APPLICATION	22.5							TERM TOTAL + FINAL TOTAL = CARD MARK
TERM TOTAL	70	FINAL TOTAL	30					

ASSESSMENT FORMAT USED

WRITTEN		PERFORMANCE		OTHER	
e.g. Slogan		e.g. Manipulative Skills		e.g. Teacher Observation	x
Short Answer	x	Extended Investigations	x	Interviews	
Open/Free Response		Projects	x	Portfolios	
Essay/Journal		Concept Mapping		Skills Checklist	x
Papers/Reports	x	Venn Diagrams			
Multiple Choice	x	Presentations			

RESOURCES	
TEXTBOOK	Functions and Applications (Nelson)
STUDENT MATERIALS	TI 83 + graphic calculator
EXCURSIONS	
COMPUTER USE	
COURSE RELATED WEBSITES	

POLICIES & PROCEDURES	
PLAGIARISM	n/a
LATE ASSIGNMENTS	Assignments shall be accepted up until the day that they are returned by the teacher.
MISSED WORK	Teacher will be available after school upon request to help students catch up on missed work.
ABSENCES	A signed note from a parent is required by the Office when returning from an absence. Students are expected to catch up on missed work upon return to school..
HOMEWORK	Homework is assigned every night to consolidate and extend student learning.
TEACHER CONTACTS	Mid-terms are issued in November and April Early warning letters for failing students are issued in Early October or early March Letters of concern are sent any time
EXTRA HELP	See missed work section
REPORTING DATES	Final exams are held in January or June

LEARNING SKILLS CRITERIA	
IN EACH REPORTING PERIOD, REPORT ON THE QUALITY OF THE LEARNING SKILLS DEMONSTRATED BY THE STUDENT IN EACH OF THE CATEGORIES IDENTIFIED ON THE REPORT CARD USING THE FOLLOWING LETTER SYMBOLS.	
E–EXCELLENT	G–GOOD
S–SATISFACTORY	N–NEEDS IMPROVEMENT
SKILL: WORKS INDEPENDENTLY	
INDICATORS:	
<ul style="list-style-type: none"> • accomplishes tasks independently • accepts responsibility for completing tasks • follows instructions • regularly completes assignments on time and with care • demonstrates self-direction in learning • independently selects, evaluates, and uses appropriate learning materials, resources, and activities 	<ul style="list-style-type: none"> • demonstrates persistence in bringing tasks to completion • uses time effectively • uses prior knowledge and experience to solve problems and make decisions • reflects on learning experiences
SKILL: ORGANIZATION	
INDICATORS:	
<ul style="list-style-type: none"> • organizes work when faced with a number of tasks • devises and follows a coherent plan to complete a task • follows specific steps to reach goals or to make improvements • revises steps and strategies when necessary to achieve a goal 	<ul style="list-style-type: none"> • manages and uses time effectively and creatively • demonstrates ability to organize and manage information • follows an effective process for inquiry and research • uses appropriate information technologies to organize information and tasks
SKILL: INITIATIVE	
INDICATORS:	
<ul style="list-style-type: none"> • seeks out new opportunities for learning • responds to challenges and takes risks • demonstrates interest and curiosity about concepts, objects, events, and resources • seeks necessary and additional information in print, electronic, and media resources • identifies problems to solve, conducts investigations, and generates questions for further inquiry • requires little prompting to complete a task, displaying self-motivation and self-direction 	<ul style="list-style-type: none"> • approaches new learning situations with confidence and a positive attitude • develops original ideas and devises innovative procedures • attempts a variety of learning activities • seeks assistance when needed • uses information technologies in creative ways to improve learning for self or others
SKILL: TEAMWORK	
INDICATORS:	
<ul style="list-style-type: none"> • works willingly and cooperatively with others • shares resources, materials, and equipment with others • responds and is sensitive to the needs and welfare of others • solves problems collaboratively • accepts various roles, including leadership roles • takes responsibility for his or her own share of the work to be done • works to help achieve the goals of the group or the class • helps to motivate others, encouraging them to participate • contributes information and ideas to solve problems and make decisions 	<ul style="list-style-type: none"> • questions the ideas of the group to seek clarification, test thinking, or reach agreement • shows respect for the ideas and opinions of others in the group or class • listens attentively, without interrupting • in discussions, paraphrases points of view and asks questions to clarify meaning and promote understanding • recognizes the contribution of group members by means of encouragement, support, or praise • seeks consensus and negotiates agreement before making decisions
SKILL: WORK HABITS/HOMEWORK	
INDICATORS:	
<ul style="list-style-type: none"> • completes homework on time and with care • puts forth consistent effort • follows directions • shows attention to detail • uses materials and equipment effectively 	<ul style="list-style-type: none"> • begins work promptly and uses time effectively • perseveres with complex projects that require sustained effort • applies effective study practices

NOTE: The above chart is a reformatting of the skills identified in the Ministry of Education's *Guide to the Provincial Report Card, Grades 9 – 12 : Appendix C: pages 27 to 29* .