

COURSE INFORMATION SHEET

DATE: SEPTEMBER 2007

SECONDARY SCHOOL: *Brebeuf College*

DEPARTMENT HEAD: *Michael Daoust*

TEACHER: *R. GREGORIS, E. LENA, L. MARTELLI, P. BRIGANTI*

DEPARTMENT: *Mathematics*



CURRICULUM POLICY DOCUMENT			
COURSE TITLE	Principles of Mathematics	COURSE CODE	MPM1D
PRE-REQUISITE	N.A.	GRADE & TYPE	9 Academic
FULL YEAR / SEMESTER	SEMESTER	CREDIT VALUE	1

COURSE DESCRIPTION (AS SPECIFIED IN MINISTRY OF EDUCATION POLICY DOCUMENT)

This course enables students to develop generalizations of mathematical ideas and methods through exploration of applications, the effective use of technology, and abstract reasoning. Students will investigate relationships to develop equations of straight lines in analytic geometry, explore relationships between volume and surface area of objects in measurement, and apply extended algebraic skills in problem solving. Students will engage in abstract extensions of core learning that will deepen their mathematical knowledge and enrich their understanding.

LISTED IN ORDER OF INSTRUCTIONAL DELIVERY

STRAND / UNIT TITLES	HOURS	OVERALL EXPECTATIONS / UNIT DESCRIPTION
Exploring Relationships	20	In this unit, both students and teachers will begin to explore both linear and non-linear relationships arising from meaningful problems. Students will develop numeric, graphic and algebraic skills as needed in the context of the activity. Various forms of assessment are built into all the activities.
Modelling Linear Relationships	40	In this unit, students and teachers will explore numerical, graphical and algebraic models (tables, graphs, equations) of linear relationships arising from meaningful problems. Students will develop numeric, graphic and algebraic skills as needed. Various forms of assessment are built into all the activities.
Exploring Relationships in Geometry	35	In this unit, students and teachers will explore and model relationships in measurement and geometry numerically and graphically in the context of optimization problems. This is an extension of the study of non-linear relationships introduced in Unit 1. Students will also explore geometric relationships using dynamic geometry software.
Making Connections	15	In this unit, students will engage in a few, large assessment activities. These activities will capture the essence of the grade 9 course. One activity will serve as a culminating assessment task, which will be used in conjunction with a final exam as a final assessment.

STUDENT EVALUATION CRITERIA				
TERM – 75%		FINAL – 25%		FINAL REPORT CARD GRADE CALCULATION – 100%
10 ≤ RELATIVE EMPHASIS / WEIGHTING ≤ 40		RELATIVE EMPHASIS / WEIGHTING		TERM TOTAL + FINAL TOTAL = REPORT CARD MARK
KNOWLEDGE/UNDERSTANDING	22.5	EQAO	5	
INQUIRY/THINKING	15	Exam	25	
COMMUNICATION	10			
APPLICATION	22.5			
EQAO	5			
TERM TOTAL	75	FINAL TOTAL	25	

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	
Papers/Reports	x	Venn Diagrams			
Multiple Choice	x	Presentations			

RESOURCES	
TEXTBOOK	9 Mathematics by Addison-Wesley
STUDENT MATERIALS	
EXCURSIONS	
COMPUTER USE	Yes. (TI-83 + Graphic Calculators are provided for student use as needed)
COURSE RELATED WEBSITES	

POLICIES & PROCEDURES	
PLAGIARISM	N.A.
LATE ASSIGNMENTS	Assignments accepted until the day returned by the teacher.
MISSED WORK	Teachers available before school at 8:30 AM every morning and after school upon request to help students.
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. On average 30 to 45 minutes of homework is assigned per day.
TEACHER CONTACTS	See missed work section above. Mid-term reports are issued in November and April. Early warning letters for failing students are issued in on two set dates as directed by administration. Letters of concern may be sent home at any time.
EXTRA HELP	See missed work (above).
REPORTING DATES	Final exam held at the end of the course.

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*.