



École Secondaire LAURIER MACDONALD High School
7355 Viau, Saint-Leonard H1S 3C2
Tel: 514-374-6000 Fax: 514-374-7220



COURSE STANDARDS AND PROCEDURES

COURSE:: Mathematics 126

CLASS RESOURCES: Teacher notes, in-class handouts, Math Help Services, Math 3000 Workbook

COURSE DESCRIPTION: *This course reviews all the basic concepts that students need to master for success in the later years in the study of mathematics*

MYP AIMS ADDRESSED BY THE COURSE: What are the aims/objectives of the course? How do these relate to the MEES competencies?

- enjoy mathematics, develop curiosity and begin to appreciate its elegance and power
- develop an understanding of the principles and nature of mathematics
- communicate clearly and confidently in a variety of contexts
- develop logical, critical and creative thinking

MYP Course Aims	MEES Course Objectives
<ul style="list-style-type: none">• Knowing and understanding• Investigating patterns• Communicating• Applying mathematics in real-life contexts	<p>TERM 1</p> <p>Topic 1 -Natural Numbers</p> <ul style="list-style-type: none">• Numeration system• Reading and writing numbers• Number order• Addition and subtraction - properties• Multiplication and division - properties• Different types of quotients• Estimation and rounding• Properties of divisibility• Prime and composite numbers• Factorization• Exponential Notation• Common divisors and common multiples• Order of operations• Sequences of operations <p>Topic 2 – From Integers to the Cartesian Plane</p> <ul style="list-style-type: none">• Integers and order• Cartesian plane• Addition and subtraction• Multiplication and division• Exponentiations

MYP Course Aims	MEES Course Objectives
<ul style="list-style-type: none"> ● Knowing and understanding ● Investigating patterns ● Communicating ● Applying mathematics in real-life contexts 	<p>TERM 2</p> <p>Topic 3 – Fractions</p> <ul style="list-style-type: none"> • Fraction, percentage, mixed number • Equivalent fractions • Comparing fractions and common denominators • Addition and subtraction of fractions • Multiplication and reduction of fractions • Reciprocal of a fraction • Division of fractions • Integer exponents <p>Topic 4 – Decimal Numbers</p> <ul style="list-style-type: none"> • Decimal notation and decimal fraction • Place value and order • Percentage of a number • Converting one form of notation into another • Addition and subtraction of decimals • Multiplication and division of decimals • Multiplication and division by powers of 10 <p>Topic 5 - Statistics</p> <ul style="list-style-type: none"> • Tables • Bar graphs and broken-line graphs • Range • Average (arithmetic mean)
<ul style="list-style-type: none"> ● Knowing and understanding ● Investigating patterns ● Communicating ● Applying mathematics in real-life contexts 	<p>Term 3</p> <p>Topic 6 – Lines and Angles</p> <ul style="list-style-type: none"> • Angles • Parallel lines • Perpendicular lines • Perpendicular bisector and bisector • Complementary and supplementary angles • Angles formed by a transversal line <p>Topic 8 – Triangles and Quadrilaterals</p> <ul style="list-style-type: none"> • Polygons • Classification of triangles • Median and altitude • Sum of angles in a triangle • Quadrilateral and sum of angles in a quadrilateral • Properties of convex quadrilaterals • Perimeter • International system • Relationships between SI units and length • Area of a triangle, rectangle, square and parallelogram • Area of a rhombus and trapezoid • Relationships between SI units and area <p>Topic 9 - From Numerical Series to Equations</p> <ul style="list-style-type: none"> • Numerical series and patterns • Arithmetic progressions • Rule of a series and of an arithmetic progression • Numerical evaluation of an algebraic expression • Equations

FUNDAMENTAL IB CONCEPTS Relationships, Form and Logic are the key concepts that will be incorporated through the teaching of the various topics below.

KEY INSTRUCTIONAL STRATEGIES/APPROACHES TO LEARNING: Which ATLs will be addressed in the course and how? How will the content be delivered to the students?

Critical thinking skills

- Analyzing and evaluating issues and ideas
- Practice observing carefully in order to recognize problems
- Gather and organize relevant information to formulate an argument
- Practice visible thinking strategies and techniques
- Utilizing skills and knowledge in multiple contexts
- Apply skills and knowledge in unfamiliar situations
- Transfer current knowledge to learning of new technologies.

How will the content be delivered to the students?

- Warm up questions allows students to reflect on previous classes concepts and learning experiences
- Demonstrate proper mathematical notation within explanation of concepts.
- Formative assessments (pop quizzes, quizzes, homework assignments)
- Group discussions when faced with unfamiliar situations; students discuss appropriate strategies and situations
- Students combine and apply their mathematical knowledge when solving summative Situational Problems.

IB MYP LEARNER PROFILE: Inquirer, Thinker, Knowledgeable and Reflective are all attributes that will be developed through problem solving, making connections between concepts and drawing conclusions

FORMATIVE & SUMMATIVE ASSESSMENT INCLUDING MYP ASSESSMENT:

Term 1 (20% of School Course Grade)		
<i>Competencies targeted</i>	<i>Evaluation methods</i>	<i>Timeline</i>
Competency 1: Solves a situational problem (30% of term grade) Competency 2: Uses mathematical reasoning (70% of term grade)	May include but not limited to: - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem	Sept 1 – Nov 3
<i>Communication to students and parents</i>	<i>Materials required</i>	
<ul style="list-style-type: none"> • Mozaik Parent Portal • Progress Report • First Term Report Card • (communication on an as needed basis) 	<ul style="list-style-type: none"> • Notebook or lined paper, graph paper, binder for handouts and duo-tang for evaluations • Ruler, pencils, and eraser • Scientific calculator • Internet Access (Outside of the classroom: Home/Library/etc) 	

<i>IB MYP Criterion</i>	<i>Examples of assessment/feedback both formative and/or summative</i>
A: Knowing and understanding B: Investigating patterns C: Communicating D: Applying mathematics in real-life contexts	- Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem

Term 2 (20% of School Course Grade)		
<i>Competencies targeted</i>	<i>Evaluation methods</i>	<i>Timeline</i>
<ul style="list-style-type: none"> Knowing and understanding Investigating patterns Communicating Applying mathematics in real-life contexts 	May include but not limited to: - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem	Nov 4 – Feb 3
<i>Communication to students and parents</i>		<i>Materials required</i>
<ul style="list-style-type: none"> Mozaik Parent Portal Progress Report (April) Second Term Report Card (communication on an as needed basis) 		<ul style="list-style-type: none"> Notebook or lined paper, graph paper, binder for handouts and duo-tang for evaluations Ruler, pencils, and eraser Scientific calculator Internet Access (Outside of the classroom: Home/Library/etc)
<i>IB MYP Criterion</i>	<i>Examples of assessment/feedback both formative and/or summative</i>	
A: Knowing and understanding B: Investigating patterns C: Communicating D: Applying mathematics in real-life contexts	- Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem	

Term 3 (60% of School Course Grade)

<i>Competencies targeted</i>	<i>Evaluation methods</i>	<i>Timeline</i>
<ul style="list-style-type: none"> • Knowing and understanding • Investigating patterns • Communicating • Applying mathematics in real-life contexts 	May include but not limited to: <ul style="list-style-type: none"> - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem 	Feb 4-June 22
<i>Communication to students and parents</i>	<i>Materials required</i>	
<ul style="list-style-type: none"> • Mozaik Parent Portal • Progress Report (April) • Third Term Report Card • (communication on an as needed basis) 	<ul style="list-style-type: none"> • Notebook or lined paper, graph paper, binder for handouts and duo-tang for evaluations • Ruler, pencils, and eraser • Scientific calculator • Internet Access (Outside of the classroom: Home/Library/etc) 	
<i>IB MYP Criterion</i>	<i>Examples of assessment/feedback both formative and/or summative</i>	
A: Knowing and understanding B: Investigating patterns C: Communicating D: Applying mathematics in real-life contexts	<ul style="list-style-type: none"> - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem 	

Additional Information/Specifications

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- This course does not have a final exam. The final course grade comes entirely from the school course grade.
- This course has a final exam administered by the English Montreal School Board. The final course grade is determined by taking 70% of the school course grade and 30% of the school board exam.
- This course has a final exam administered by the *Ministère de l'Éducation et de l'Enseignement Supérieur* (MEES). The final course grade is determined by taking 50% of the school course grade and 50% of the MEES exam. Please note that the final course grade is subject to MEEs moderation.