École Secondaire LAURIER MACDONALD High School
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COURSE STANDARDS AND PROCEDURES

COURSE:
   Mathematics 306

CLASS RESOURCES: Teacher notes, in-class handouts, Math Help Services and MHS interactive workbook

COURSE DESCRIPTION: *Overview of the course's content and objectives, and how they will be addressed through the course content and curriculum*.

This course is designed to cover a variation of topics in Math to prepare students for many different paths in life; i.e. Statistics, Science, Commerce, Design, Programming to mention a few. At the completion of Math 306, students can potentially enter the scientific Math stream (Math 426) if they maintain a final grade of at least 75%.

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

MYP Course Aims	MEES Course Objectives
-Knowing and understanding -Investigating patterns -Communicating -Applying mathematics in real-life contexts	**TERM 1** **Topic 1 – Numbers and Pythagorean Theorem** •Set of numbers •Measures of the side of a right triangle •Exponential notation •Laws of exponents •Scientific notation **Topic 2 – Algebraic Expressions** •Polynomial operations •Manipulating algebraic expressions •Expanding: multiplication of algebraic expressions •Factorization: Finding the common factor

MYP Course Aims	MEES Course Objectives
-Knowing and understanding -Investigating patterns -Communicating -Applying mathematics in real-life contexts	**TERM 2** **Topic 3 – Relations and Functions** •Relation, inverse and function •Independent and dependent variables •Types of representation •Properties of functions in context •Polynomial function of degree 0 or 1 •Rate of change •Solving first-degree equations in one variable •Finding the rule of a polynomial function of degree 1 •Modeling a situation using a polynomial function of degree 0 or 1 •Inverse variation function **Topic 4 – Equations and Inequalities** •System of equations •Constructing a system of equations •Solving a system of equations: graph, table of values •Solving a system of equations: method of comparison •Inequalities •Rule for transforming inequalities •Solving inequalities **Topic 5 – Spatial Sense** •Parallel projection •Central projection •Description and construction of objects

MYP Course Aims	MEES Course Objectives
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MYP Course Aims	MEES Course Objectives

FUNDAMENTAL IB CONCEPTS: Identify the MYP fundamental concepts (communication, intercultural awareness and holistic learning) specific to the subject and explain how they will be incorporated.

Measurement
Models
Patterns
Quantity
Change
Equivalence
Representation
Simplification
Generalization

KEY INSTRUCTIONAL STRATEGIES/APPROACHES TO LEARNING:

Which ATLs will be addressed in the course and how?

Critical thinking skills

• Analyzing and evaluating issues and ideas

• Practice observing carefully in order to recognize problems

• 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 that allow 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, Math help services 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: Identify which profile attributes will be addressed in the course and how.
Communicators, Inquirers/Thinkers, Caring

FORMATIVE & SUMMATIVE ASSESSMENT INCLUDING MYP ASSESSMENT:

Term 1 and Term 2: 20% each of final grade		
Competencies targeted	*Evaluation methods*	*Timeline*
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	Term 1: Sept 1 – Nov3 Term 2: Nov 4- Jan 26
Communication to students and parents	*Materials required*	
• Google classroom • Progress Report • First and Second Term Report Card • (communication on an as needed basis)	• 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)	
IB MYP Criterion	*Examples of assessment/feedback both formative and/or summative*	
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 final grade)		
Competencies targeted	*Evaluation methods*	*Timeline*
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	Jan 26 - June 21
Communication to students and parents	*Materials required*	
• Google classroom • Third Term Report Card • (communication on an as needed basis)	• 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)	
IB MYP Criterion	*Examples of assessment/feedback both formative and/or summative*	
A: Knowing and understanding B: Investigating patterns C: Communicating D: Applying mathematics in real-life contexts	- 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.

[x]   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.