

**École Secondaire LAURIER MACDONALD High School**

**7355 Viau, Saint-Leonard  H1S 3C2**

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**COURSE STANDARDS AND PROCEDURES**

**COURSE**:

Mathematics 306

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

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| 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  **Topic 2 – Algebraic Expressions**  •Polynomial operations  •Manipulating algebraic expressions  •Expanding: multiplication of algebraic expressions  •Factorization: Finding the common factor |

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| 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  **Topic 4 – Equations and Inequalities**  •Solving inequalities |

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**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.

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| 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:**

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| **Term 1: 20% 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 ends November 3rd |
| *Communication to students and parents* | *Materials required* | |
| • Google classroom  • Progress Report  • First 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 | |

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| **Term 2: 20% 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 2 ends February 3rd |
| *Communication to students and parents* | *Materials required* | |
| • Google classroom  • 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 | |

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| **Term3:: 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 | Term 3 ends June 23 |
| *Communication to students and parents* | *Materials required* | |
| • Google classroom  • End of Year 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 | |

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| **Additional Information/Specifications** |
| Click here to enter text.  **☐** 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. |