

**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 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?

|  |  |
| --- | --- |
| 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 |

|  |  |
| --- | --- |
| 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 |

|  |  |
| --- | --- |
| MYP Course Aims | MEES Course Objectives |
| -Knowing and understanding-Investigating patterns-Communicating-Applying mathematics in real-life contexts | **TERM 3:****Topic 6 – Area of Solids**•Right circular cone and sphere•Decomposable solids•Lateral area and total area**Topic 7 – Volume of solids**•Area and volume•Choice of unit of measure for volume•Capacity•Volume of a right prism and cylinder•Volume of a right pyramid, cone and ball•Volume of a decomposable solid•Cube root**Topic 8 - Statistics**•Sampling methods•Table of condensed data•Table with data grouped into classes•Types of graphs•measures of central tendency |

**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 SimplificationGeneralization |

 **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: 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 understandingB: Investigating patternsC: CommunicatingD: Applying mathematics in real-life contexts | - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem |

|  |
| --- |
| **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 understandingB: Investigating patternsC: CommunicatingD: Applying mathematics in real-life contexts | - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem |

|  |
| --- |
| **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 understandingB: Investigating patternsC: CommunicatingD: Applying mathematics in real-life contexts | - Tests - Quizzes - Assignments/Pop-Quizzes - Situational Problem |

|  |
| --- |
| **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. |