COURSE STANDARDS AND PROCEDURES

COURSE:
Mathematics 504 Secondary 5 Math CST

CLASS RESOURCES: *Math Help Service workbook, Teacher notes, in class handouts, Math Help Service, Google Classroom*

COURSE DESCRIPTION:
Secondary 5 Math CST

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** **Chapter 1 - Systems of Equations and Inequalities** - Solving systems of equations - Inequalities in 1st degree with two variables - System of inequalities - Polygon of constraints - The optimizing functions - Optimal solutions - linear programming and optimal solutions - Solving an optimization problem -
- Knowing and Understanding - Investigating patterns - Communicating - Applying mathematics in real life contexts	**TERM 2** **Chapter 2 - Financial mathematics** - Exponential notation - Laws of exponents - Logarithm (definition and change of base) - Interest rates - Interest period - Discounting - Compounding **Chapter 3 – Graphs (continues in Term 3)** - Tree diagrams and networks - Graph - Connected graph - Complete graph

	- Path - Circuit - Tree - Directed graph - Weighted graph - Path of minimum value - Path of maximum value - Tree of minimum value - Chromatic number - Critical Path
- Knowing and Understanding - Investigating patterns - Communicating - Applying mathematics in real life contexts	**TERM 3** **Chapter 4: Social theory - Voting Procedures** - Voting Procedures - Majority rule and plurality voting - Borda count, condorcet method, elimination method and approval voting - Majority election **Chapter 5: Equivalent Figures and Cosine Law** - Cosine Law - Area of a Figure - Volume of a Solid - Equivalent Lines - Equivalent plane figures - Equivalent solids - Comparing equivalent plane figures and solids **Chapter 6: Probability** - Randon Experiment - Probability of an event - Theoretical, experimental and subjective probability - Odds for and against - Math Expectation - Conditional Probability - Fairness - Mutually exclusive and non-mutually exclusive events - Independent and dependent events

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.
- Concepts: Form, Relationships, Logic
- How: Providing concrete examples

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?
    <u>Which ATLs will be addressed in the course and how?</u>

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

<u>How will the content be delivered to the students?</u>

- Homework quizzes allow students to reflect on previous classes concepts and learning experiences.
- Demonstrate proper mathematical notation within explanation of concepts.
- Formative assessments (Homework quizzes, quizzes, tests)
- 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.
- Attributes: Communicators, Inquirers/Thinkers, Caring
  How:
- Teaching focused on effective teamwork and collaboration
- Teaching through inquiry
- Teaching differentiated to meet the needs of all learners

FORMATIVE & SUMMATIVE ASSESSMENT INCLUDING MYP ASSESSMENT:

Term 1 (20% of School Course 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 - Homework quizzes - Situational Problem	Sept 1, 2023 – Nov 2, 2023

Communication to students and parents	Materials required
- Mozaik Parent Portal - Progress Report - 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 - Homework quizzes - Situational Problem

Term 2 (20% of School Course 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 - Homework Quizzes - Situational Problem - MIDYEAR EXAM	Nov 3, 2023- Feb 2, 2024

Communication to students and parents	Materials required
- Mozaik Parent Portal - Progress Report (April) - 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 - Homework quizzes - Situational Problem

Term 3 (60% of School Course 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 - Homework Quizzes - Situational Problem - FINAL EXAM	Feb 3, 2024- June 21, 2024
Communication to students and parents	Materials required	
- Mozaik Parent Portal - 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 - Homework Quizzes - Situational Problem	

Additional Information/Specifications
☐   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.