



Royal West Academy

Course Outline

Course: Mathematics 504 Cultural Option

Teacher: V. Gagliano Room: 312

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Texts/workbooks: Math Help Services and Course Packs

Course description: Grade 11 CST Math covers: optimization, financial mathematics, graph theory, trigonometry, probability and voting procedures

Remediation: Day 2: Lunch; Day 5: Lunch

Materials Required: *Copy book* for homework solutions, *binder* (store notes and homework), pens, ruler, pencils, eraser, highlighter, scientific calculator (NOT GRAPHIC) (ideally with display).

Communication with Students/Parents: Communication via E-mail, google classroom and Mozaik. Announcements and grades will be posted on google classroom.

Parents and students are responsible for daily check to their email and google classroom.

To access google classroom students should add their parents as a “guardian” or parents can simply log into google classroom with their child’s login information.

Evaluation

TERM 1 (20% of year-end grade): August 29 th – November 4 th	Evaluation Methods	Timeline
Competency 1: Solves a situational problem	Situational problem tests and/or assignments	Generally, two to three per term
Competency 2: Uses mathematical reasoning	Class tests, quizzes, assignments and/or Math Help Services	Weekly to Bi-weekly

TERM 2 (20% of year-end grade): November 3 rd – February 2 nd	Evaluation Methods	Timeline
Competency 1: Solves a situational problem	Situational problem tests and/or assignments	Generally, two to three per term
Competency 2: Uses mathematical reasoning	Class tests, quizzes, assignments and/or Math Help Services Mid-Year Exam	Weekly to Bi-weekly January 23rd-28th Worth 50% of C2 Subject to change

TERM 3 (60% of year-end grade): February 5 th – June 21 st	Evaluation Methods	Timeline
Competency 1: Solves a situational problem	Situational problem tests and/or assignments	Generally, two to three per term
Competency 2: Uses mathematical reasoning	Class tests, quizzes, assignments and/or Math Help Services Final Exam	Weekly to Bi-weekly TBA

Note: Competency 1 is worth 30% of each term, Competency 2 is worth 70% of each term.

Evaluation methods, frequencies and values are subject to change.

End of the Year Results

Competency 1 (30% of final math mark)				
Term 1	Term 2	Term 3	=	70% of Final C1 Mark
20%	20%	60%		
EMSB Final Exam (June)			=	30% of Final C1 Mark*

Competency 2 (70% of final math mark)				
Term 1	Term 2	Term 3	=	70% of Final C2 Mark
20%	20%	60%		
EMSB Final Exam (June)			=	30% of Final C2 Mark*

*Subject to change

Classroom Rules

1. **Missed Evaluations:** If a student is going to miss an evaluation, a parent must email me prior to the evaluation, confirming they are aware their child will be absent for the test/quiz. The student will take the test during the next class, so they must be prepared upon their return.
2. **Class Preparedness:** Students are expected to come to class prepared with necessary supplies, including pencils, calculators, and notes. Repeated failure to come prepared will result in a detention.
3. **Class Time Conduct:** Students are not allowed to leave the classroom during class time. They are encouraged to bring a reusable water bottle to stay hydrated and use the bathroom during passing times.
4. **Evaluation Retakes:** Retakes for evaluations will not be granted.
5. **End of Class Protocol:** Students must remain seated until the bell rings. There will be no gathering around the door before dismissal.
6. **Evaluation Guidelines:** Students are not allowed to use a pen on evaluations. Please use a pencil for all test and quiz responses.
7. **Cell phones:** Cell phones are not allowed during school hours. Refer to the agenda for more information.

More Information

Classwork: Notes will be handed out by topic and to be stored in students' folder/binders. Notes will also be posted on google classroom. Students are responsible for keeping track of assessments dates and deadlines. Students **may** be granted extensions in the event of extenuating circumstances if they request one from the teacher **at least 2 days** in advance. Late submission of work will result in a 0%.

Absent from class: Students are responsible for all material covered when they are absent from class.

Absent for a test: Students must have a valid reason to miss a test. A note explaining the absence from the evaluation may be required when the student returns to school. A student who is absent because of an ECA activity must notify the teacher ahead of time. Repeated absences will be reported to the administration. ****All missed tests will be rewritten at the teacher's convenience. It is the student's responsibility to contact the teacher.**** If the following procedures are not followed a mark of 0 will be given for the test or evaluation.

Remediation: If results show that a student is experiencing difficulties, they may be obligated to attend remediation.

Math resources

- <http://www.khanacademy.org> → A website containing small videos on many different subjects, including mathematics.
- <http://learnquebec.ca> → An online website including slide shows on many different subjects and online tutoring. You need a password, provided by the homeroom teacher or the administration. There are also online tutoring sessions.
- <https://www.cemc.uwaterloo.ca/courseware> → It contains good math videos and practice exercises.
- Peer tutoring: A tutoring service organised by Mrs. DiPietro (room 226) where students tutor other students.

Summer School

In the event of a failed course, it is possible that the student may be required to attend summer school.

Topics:**Topic 1 – Graphs**

- Tree diagrams and networks
- Graph
- Connected graph
- Complete graph
- Paths
- Circuits
- Trees
- Directed graph
- Weighted graph
- Path of minimum value
- Tree of minimum value
- Chromatic number
- Critical path

Topic 2 – Systems of Equations and Inequalities

- Solving systems of equations
- Inequalities in the 1st degree with two variables
- System of inequalities
- Polygon of constraints
- The optimizing function
- Optimal solutions
- Linear programming and optimal solutions
- Solving an optimization problem

Topic 3 – Financial mathematics

- Exponential notation
- Laws of exponents
- Logarithm (definition and change of base)
- Interest rates
- Interest period
- Discounting
- Compounding

Topic 4 - Voting procedures

- Majority rule and plurality voting
- Borda count, Condorcet method, elimination method and approval voting
- Majority election

Topic 5 – Cosine Law and Equivalent Figures

- Cosine Law
- Area of a figure
- Volume of a solid
- Equivalent lines
- Equivalent plane figures
- Equivalent solids
- Comparing equivalent plane figures
- Comparing equivalent solids

Topic 6 – Probability

- Random experiment
- Probability of an event
- Theoretical, experimental and subjective probability
- Odds for and odds against
- Distinction between odds and probability
- Mathematical expectation (interprets and decision making)
- Fairness and optimizing gain or loss
- Mutually exclusive events
- Non-mutually exclusive events
- Independent and dependent events
- Conditional probability