

# **Royal West Academy**

# School Year (2025 -2026)

## **Course Outline**

Course: Mathematics 414 Cultural

Teacher: Mrs. R. Bensoussan Room: 312

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Texts/workbooks: Math Help Services and Course Notes

Grade 10 Cultural Math covers the following topics: Lines, Analytic

Course description: Geometry, Functions, Statistical Measures, Linear correlation, Similar

Figures, Trigonometry. (View below for more details)

Remediation: Day 3 – after school (3:00 – 4:15); Day : 6 Lunch (12:30 – 1:00)

Materials Required: *Copy book* for homework solutions, *binder* (store notes – 200page spiral graph notebook, homework, tests and quizzes), 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 <sup>th</sup> – November 4 <sup>th</sup> | Evaluation Methods        | Timeline                         |  |  |
|--|---------------------------|----------------------------------|--|--|
| Competency 1:  | Situational problem tests | Generally, two to three per term |  |  |
| Solves a situational problem   | and/or assignments        |                                  |  |  |
| Competency 2: Uses mathematical  | Class tests, quizzes,     | Weekly to Bi-weekly              |  |  |
| reasoning  | assignments and/or        |                                  |  |  |
|  | Math Help Services        |                                  |  |  |

| TERM 2 (20% of year-end grade):  November 3 <sup>rd</sup> – February 2 <sup>nd</sup> | Evaluation Methods   | Timeline   |
|--|--|--|
| Competency 1:<br>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 |  |
|  | Mid-Year Exam  | January 23 <sup>rd</sup> -28 <sup>th</sup> Worth 50% of C2 Subject to change |

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

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) |           |        | Competency 2 (70% of final math mark) |                                |  |           |           |        |   |                                |
|---------------------------------------|-----------|--------|---------------------------------------|--------------------------------|--|-----------|-----------|--------|---|--------------------------------|
| Term 1                                | Term 2    | Term 3 | =                                     | TBD % of Final Cl Mark         |  | Term 1    | Term 2    | Term 3 | = | TBD%<br>of Final<br>C2<br>Mark |
| 20%                                   | 20%       | 60%    |                                       |                                |  | 20%       | 20%       | 60 %   |   |                                |
| Final Exa                             | am (June) |        | =                                     | TBD%<br>of Final<br>C1<br>Mark |  | Final Exa | am (June) |        | = | TBD%<br>of Final<br>C2         |

#### 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.
- 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

<u>Classwork:</u> 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 exercices.
- 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 - Lines and Analytic Geometry

- Slope
- · Find the equation of a line functional form
- · General form of the equation of a line
- · Intercepts
- · Systems of equations
- · Particular cases of systems of equations
- · Parallel and perpendicular lines
- · Distance between two points
- Division point
- · Analytic proofs

# Topic 2 - From functions to modeling

- Real functions (notation, properties)
- Second-degree polynomial functions y = ax<sup>2</sup>
- Exponential functions y = acx
- · Step functions (interpret)
- Periodic functions (no equation)
- · Piecewise functions

# Topic 3 – Statistical measures and linear correlation

- Single-variable distribution
- · Measure of dispersion: mean deviation
- Stem-and-leaf plot
- Measures of position: percentile rank
- · Two-variable distributions
- Correlation (interpret, coefficient)
- Regression line

### Topic 4 - From congruent to similar figures

- Congruent/isometric triangles
- Similar triangles
- · Metric relations in right triangles

# Topic 5 - Trigonometry

- · Trigonometric ratios
- · Solving a right triangle
- · Sine law
- Area of a triangle (3 formulas)

<sup>\*</sup>Subjected to change order.