

# **Royal West Academy**

## Course Outline

| Course:             | Introduction to Calculus / Differential Calculus  |              |  |  |
|---------------------|---|--------------|--|--|
| Teachers:           | Adam Wiltzer; awiltzer@emsb.qc.ca   | Room(s): 201 |  |  |
| _ /                 | Course notes provided by the teacher throughout the year  |              |  |  |
| Texts/workbooks:    | Texts/workbooks: Calculus: Single Variable Essential Calculus by James Stewart 2 <sup>nd</sup> edition  |              |  |  |
| Course description: | This course is offered to grade 11 students who have successfully completed Math 506. This course provides students with mathematical knowledge preparing them for mathematics courses offered in college.<br><u>Introduction to calculus: September-January</u><br>Topics include Complex Algebra, Imaginary Numbers, Trigonometric Identities Theory of Polynomials, Introduction to Linear Algebra<br><u>Differential Calculus: January-June</u><br>Topics include Definition of a limit, Derivatives, Curve sketching, Application of |              |  |  |
|                     | derivatives, Introduction to the anti-derivatives, differential e   | 0.11         |  |  |
|                     | derivatives, introduction to the anti-derivative, differential e  | quations.    |  |  |
| Remediation:        | Day 3: 7:45 – 8:25; Day 7: 12:26 – 1:06   |              |  |  |

Material Required: 1.5-inch binder or notebooks, dividers (4 to 5), scientific calculator, ruler, pencils, erasers, red or green pen.

Communication with Students/Parents: By email mostly or by phone.

## **Evaluation**

| Term 1 (50%) - August 29 <sup>th</sup> to November 4 <sup>th</sup>  |                    |                                 |  |  |
|---|--------------------|---------------------------------|--|--|
| <b>Competencies Targeted</b>  | Evaluation Methods | Timeline                        |  |  |
| Competency 2:   | Class Tests        | Mid and/or end of topic         |  |  |
| Uses mathematical reasoning   | Quizzes            | If applicable, 1 or 2 per topic |  |  |
| Competency 1:   |                    |                                 |  |  |
| Solves a situational problem  | Assignments        | 1-2 per topic                   |  |  |
| Term 2 (50%) - November 5 <sup>th</sup> to January 29 <sup>th</sup> |                    |                                 |  |  |
| <b>Competencies Targeted</b>  | Evaluation Methods | Timeline                        |  |  |
| Competency 2:   | Class Tests        | Mid and/or end of topic         |  |  |
| Uses mathematical reasoning   | Quizzes            | If applicable, 1 or 2 per topic |  |  |
|   |                    |                                 |  |  |
| Competency 1:   |                    |                                 |  |  |
| Solves a situational problem  | Assignments        | 1-2 per topic                   |  |  |
|   |                    |                                 |  |  |
|   |                    |                                 |  |  |
|   |                    |                                 |  |  |

| Term 3 (100%) - January 30 <sup>th</sup> to June 6 <sup>th</sup> |                    |                                 |  |
|--|--------------------|---------------------------------|--|
| Competencies Targeted  | Evaluation Methods | Timeline                        |  |
| Competency 2:  | Class Tests        | Mid and/or end of topic         |  |
| Uses mathematical reasoning                                      | Quizzes            | If applicable, 1 or 2 per topic |  |
| Competency 1:  |                    |                                 |  |
| Solves a situational problem                                     | Assignments        | 1-2 per topic                   |  |

### End of the Year Results

| Introduction to Calculus |                    |  |  |
|--------------------------|--------------------|--|--|
| Term 1                   | 50% of final mark  |  |  |
| Term 2                   | 50% of final mark  |  |  |
| Differential Calculus    |                    |  |  |
| Term 3                   | 100% of final mark |  |  |

## Additional Information / Specifications

<u>Absent from class</u>: Students will be given notes and examples covered in class therefore they are responsible for all material covered when absent from class.

**Absent for a test:** If a student is absent for a test, the parent must communicate with the teacher by email the morning of the test or provide a medical note as soon as the student returns to school. A student who is absent because of an ECA activity must give a written notice or an email to the teacher ahead of time. Repeated absences will be reported to the administration. **\*\*All missed tests will be written the next day or upon student return \*\*** If the following procedures are not followed a mark of 0 will be given for the test or evaluation.

#### Absent on a day an assignment is due:

- Absent on the day of: A scanned copy must be sent to the teacher before 12:30 on the day of absence.
- Absent for a longer period: If illness restricts working time, parents should email teacher advising them and a new due date will be discussed on a case-by-case basis.
- Late assignments: penalty of 20% per day (maximum of 3 days)
- Planned absence: Hand it in **<u>before</u>** the due date.

<u>Calculators</u>: Graphic calculators are <u>NOT ALLOWED</u> during evaluations. A regular scientific calculator should be used in class and during evaluations.

**Homework:** Students MUST do their homework. Even if homework is not checked regularly, it will help them complete assignments and tests.

## Students will have 2 math marks!