

Grade 12 Applied Math (40S)

Course Code: 3903

Credit Value: 1.0 credits

Instructor: **Mrs. L. Frohwerk**

Glenella School

Term I – 2025/2026

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Course Description:

Grade 12 Applied Mathematics (40S) is intended for students considering post-secondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. It builds upon the foundation knowledge and skills from Grade 10 Introduction to Applied and Pre-calculus Mathematics and Grade 11 Applied Mathematics.

Primary goals of Applied Mathematics are to have students develop critical-thinking skills through problem solving and model real-world situations mathematically to make predictions.

These goals may be attained in a number of ways. Students may collect data in experiments and activities and then develop mathematical concepts by analyzing that data. They are encouraged to learn and demonstrate effective communication skills through a variety of media. Students are expected to become proficient in both oral and written communication skills.

Applied Mathematics is designed to promote student flexibility and responsibility. Flexibility is encouraged by having students work on non-routine problems and projects. Responsibility is encouraged as students work individually and in cooperative groups to explore connections with other mathematical areas, school subjects, and real-life applications.

Technology is an integral part of both learning and assessment in Applied Mathematics. Graphing calculators, spreadsheets, or other computer software will be used by students for mathematical explorations, modelling, and problem solving.

Mark Distribution:

Final exam (Provincial) January 20, 2026 – 20%

Course Work – 80%

Each class we have is around 70 minutes, so a 12 hour unit on sinusoidal functions will take around 10 classes. This includes tests, lessons and work classes. You have to do your work and keep ahead.

Please note that the order that the units are studied may not follow the above listing.

Units of Study:

Possibility 1		
Unit	Outcomes	Suggested hours
Sinusoidal Functions	L1, R3	12
Compound Interest	L1, FM1, FM2	12
Probability	L1, L2, L3, P1, P2, P3	20
Polynomial Functions	L1, R1	12
Permutations and Combinations	L1, P4, P5, P6	12
Investments	L1, FM3	12
Design and Measurement	L1, D1	10
Research Project	L1, RP1	10
Exponential and Logarithmic Functions	L1, R2	10
Total		110

Course Work may include any/all of the following:

Projects may be given for certain units. They must be handed in as a whole assignment, and fully completed before marks will be given out. They may be used in place of a test.

Homework: You will be assigned work from your textbook. The chapter review must be completed to be allowed to write your test. If you do not have the review completed, then you will not be allowed to write the test. There will also be hand-in assignments that I will mark for each unit. These will be counted towards your course mark. Hand-in assignments will follow the missing work policy described in the class expectations section.

Tests will be given at the end most units. Some of the longer units may have more than one test. You must have the review for the unit completed before you write the test. You will receive a 10% deduction on your test mark if your review is not completed **before** you write your test. No exceptions. All tests will be written with the aid of a **one-sided** student created study sheet. No student should have an identical study sheet as someone else. If this occurs, neither student will be allowed to use the study sheet.

Final Exam is a provincial exam administered on January 20th, 2026 from 9:00- 12:00.

Class Expectations:

Students are expected to arrive for class on time and prepared (with all required materials).

- If a student must be absent from class, prior notice should be given and any missed work must be completed immediately after the student returns to class. It is the student's responsibility to ensure all missed work is completed.
- All assignments are to be completed to the best of the student's ability. Substandard work will not be accepted and the student will be required to redo the assignment properly.
- This is a senior 4 level course and students are expected to behave as responsible young adults. As principal duties may require my absence from class on occasion, students are expected to be able to work independently and with limited supervision. This includes being self-sufficient on occasions where I am unable to attend the start of class or am called away during scheduled class time.
- Do your best & be respectful!

Materials

- ✓ Binder & dividers
- ✓ Laptop and headphones*
- ✓ Scientific Calculator
- ✓ Pencils, eraser, ruler

Students will use Teams to access the videos for their notes and to access the digital textbook. They will need to bring it to every class.

Plagiarism/Cheating Policy:

The school handbook outlines the expectations in regards to academic dishonesty (If at any time you are unsure about an assignment it is the student's responsibility to ask for clarification), attendance and the use of technology.

1st offence- The student will receive a zero (0) on the assignment. A phone call/email will be sent to the parent/guardian.

2nd offence- A letter will also be sent home to the parent/guardian. The parent/guardian must sign the letter and return it to the school. The Student will receive a zero (0) on the assignment.

3rd offence- The student will receive a zero (0) on their assignment and they will be referred to the principle for further disciplinary action. A meeting will need to be arranged with the parent/guardian to address the severity of this issue.

Late Assignment Policy:

Assignments are expected to be handed in assignments on the due date. Late assignments will only be accepted by the teacher's discretion. It is up to the student to communicate with the teacher if they cannot complete the assignment on the expected due date.

Extra Help:

If a student requires extra help on a particular assignment/topic we covered in class, it is up to the student to request a meeting with the teacher.

Outline Confirmation and Contact Information:

Communication with parents is more important than ever and will be a priority. After you go over this outline with your student, be sure to date, sign and provide me with your contact information. Please clearly indicate which method of communication you would like me to contact you with, and which parent/guardian to address my inquiries to. If both every parent/guardian would like the information than feel free to include them. You can fill out the form below (add more spaces if needed), but I personally would prefer you send me an email (lfrohwerk@trsd.ca) with all the information so that I can ensure it is not misplaced.

I have read this outline over, and discussed it with my parent(s)/guardian(s) and understand what it contains. By getting these signatures, and appropriate contact information. Feel free to contact me via email at lfrohwerk@trsd.ca if you have any questions, or phone the school to arrange a meeting (352-4253).

Parent email(s): _____ best phone number for contact: _____

Parent/Guardian Signature

Students Signature

Date