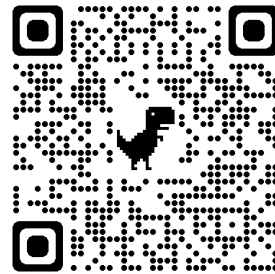# GRADE 12 APPLIED MATHEMATICS
COURSE OUTLINE

Term 3: **22 January – 21 March**, 2024
Mr. Rick F.
mrf_teach@hotmail.com

Final Exam: Thursday, 21 March

We live in a rapidly changing world. Mathematics is playing more and more a role in our everyday lives. A firm foundation in mathematics is now an essential part of living in today's fast - paced society. On this Grade 12 Applied Mathematics course you will learn several of the key skills needed for an increasingly technological world.

Grade 12 Applied Mathematics is intended for students considering any science related 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. Technology is an integral part of both learning and assessment in Applied Mathematics. Graphing calculators, spreadsheets, or other computer software will be used continually by students for mathematical explorations, modelling, and problem solving.

Unit Label	Subject	Class Hours
A	Probability, Permutations and Combinations	25
B	Personal Finance	14
C	Functions	20
D	Statistics	15
~~E~~	~~Permutations and Combinations (in Unit A)~~	14
F	Sinusoidal (Periodic) Functions	15
G	Design and Measurement	20
H	Research Project	0
	Total	110 hrs

On-Time. Notice that 110 hours is necessary for this course. This is a quick paced course! Disruption of your class through late arrivals too frequently does not promote effective learning. Late arrivals and extended breaks just complicate timely delivery of the course.

Extra Assistance. I am more than readily available at short notice for any and all students for additional assistance provided they are industrious and earnest. Ample additional support is available on the course website at: **mrfteachmb.com**

Computer Lab/ Programs. No special programs are required for the course. There is limited access to computers. Use of Mathematics-related Apps on personal devices is encouraged (except for tests and final exam)

Attendance. Attendance and tardiness are recorded daily and processed by the office and funding agencies. Making up missed work and notes is your responsibility. There is more than sufficient means to readily locate what you have missed.

Revised:

Supplemental Materials / Equipment: A scientific calculator is required; the calculators with the 50 to 100 different functions. A **$14 - $20** calculator that features **Multi-Line Display** or equivalent is especially desirable. A phone or tablet is highly desirable for this course. Teacher will instruct you on suitable Math Apps you might download to your mobile device.

Textbook. There is no text book for the course. Each unit has its own prepared set of class notes and workbooks for students to interact with.

Assessment and Evaluation. Assessment is based on Homework, weekly Thursday Quizzes, Mid-Terms Test and a Final Exam. This particular Applied Course is not subject to the Provincial Exam process.

Item	Approx. Weight Factor
Homework (~ 20 Assignments)	25%
Thursday Quizzes (~ x 6)	30%
Mid-Term Test (x 1)	15%
Final Exam (x 1)	25%
Study Notes (Cheat Sheet)	5%

Lates. There will be approximately 20 (+/-) assignments; often they will be done in class. Assignments that are seven or more days late from the due date will likely be subject to a maximum mark of 50%. Missing a weekly quiz may be subject to considerable penalty as well.

Food/Drink. Food is not permitted in the classroom. Drinks are permitted provided they have a secure lid.

Cell Phones and Related Devices. Use of social media / texting is **not permitted** in class. Silence it, store it away (vibrate in pocket) and check it at the break. Smart phones and related devices can be very powerful tools in a mathematics class and there are some wonderful apps we will explore. Despite that the smart phones have a wonderful calculator students will need to have a **proper handheld scientific calculator** in the classroom, a few class calculators are available.

Emergencies / Office Number. Reception is at 953-2800. It will be useful to share this number with child care facilities and immediate family for emergencies only.

Study Notes. You are required to make a single sheet of study notes ('Cheat Sheet') and revise it throughout the course. The single sheet of study notes is allowed on all quizzes and tests and the **Final Exam**. Composing and revising your thoughts onto a single sheet of paper is a very powerful way to learn.

Conclusion. We are all in this together. Given that few students have done the Grades 10 and 11 Applied it will be a lot of work for all of us; myself included. But I am prepared to deliver a rewarding Grade 12 Applied Mathematics course with your eager and enthusiastic participation.

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Date   Instructor