



Grade 12 Advanced Functions Course Information

ONLINE VERSION

Course Textbook: Advanced Functions 12 (McGraw-Hill Ryerson)

Course Code: MHF 4U

Rationale:

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students taking the Calculus and Vectors course as a prerequisite for a university program and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs

Prerequisite: Functions, Grade 11, University Preparation, or Mathematics for College Technology, Grade 12, College Preparation

The Ontario Curriculum, Grade 12: Mathematics, 2007

Course Overview:

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Polynomial Functions	Rational Functions	Trigonometry	Trigonometric Functions	Exponential and Logarithmic Functions	Combining Functions
<ul style="list-style-type: none"> characteristics of polynomial functions solving equations and inequalities factor and remainder theorems 	<ul style="list-style-type: none"> characteristics of rational functions graphing rational functions asymptotes 	<ul style="list-style-type: none"> radian measure graphing primary and reciprocal trig functions transformations 	<ul style="list-style-type: none"> trig functions solving equations solving problems Identities 	<ul style="list-style-type: none"> exponent laws laws of logarithms solve exponential and logarithmic equations 	<ul style="list-style-type: none"> consolidate characteristics of functions composition of functions graphing combinations of functions
Chapters 1 - 2	Chapter 3	Chapters 4 – 5	Chapters 4 – 5	Chapters 6 - 7	Chapter 8

Evaluation:

The Mathematics Department at Richmond Hill High School recognizes that assessment is a daily procedure. Teachers will monitor the learning skills component of the Provincial Report Card on a regular basis. These skills -- independence, teamwork, organization, work habits and initiative – will be assessed throughout the course. The students' final percentage grade will be calculated using the following guide:

ONLINE VERSION (2021 Semester 2)	Weight
Quizzes	42%
Assignments	15%
Unit Review Portfolios	24%
Summative Activities	14%
Participations/Efforts (Online)	5%
Total	100%

Attendance/Lates:

Students are expected to attend class each day. A lot of material is covered each period and it can be difficult to catch up if a student has repeated absences. Furthermore, the teacher establishes expectations with respect to the topics and their level of difficulty during class time. It is the student's responsibility to catch up on lessons and homework that have been missed. Ask your classmates for lessons and homework and the teacher can provide you with any handouts. Please also consult the math department's website at www.rhsmath.ca and follow the appropriate links.

If you know that you will be absent, you must let your teacher know **before hand**, especially if your absence is on the day of a quiz or test (see below).

Quizzes:

Tests are based on a unit of work and are always announced in advance. Quizzes may or may not be announced in advance. They cover only recently assigned work.

If you are going to be legitimately away on the day that a quiz or test is written **the student** must make arrangements with the teacher prior to the day of the absence. Failure to do so may result in a mark of **zero**. Please note that missing a quiz or test due to an appointment or field trip and informing the teacher after the fact is unacceptable.

If you are away due to unforeseen illness, you must bring a note, signed by a parent or guardian, indicating that they are aware that you have missed a math test and the reason for your absence. This is **different from the note that you provide for the office and should be addressed to me**. This note is to be received within 3 school days after your return to school. Again, failure to do so may result in a mark of zero. In the event of a legitimate absence due to illness, your test mark may be replaced by the final exam mark. You will need to speak to your teacher immediately upon your return.