



West Carleton Secondary School

MHF4U – Advanced Functions

Course Outline - 2013 – 2014

Mr. Emmell – Office: 212A
 stephen.emmell@ocdsb.ca
 www.emmell.org

EVALUATION

Term Work (see below)	70%
Final Exam	20%
Summative Assessment	10%

COURSE EXPECTATIONS

Polynomial and Rational Functions: [22%]

Units	Weight	Description of Expectations
1	10%	PR1 identify and describe some key features of polynomial functions, and make connections between the numeric, graphical, and algebraic representations of polynomial functions
2	12%	PR2 identify and describe some key features of the graphs of rational functions, and represent rational functions graphically
		PR3 solve problems involving polynomial and simple rational equations graphically and algebraically
		PR4 demonstrate an understanding of solving polynomial and simple rational inequalities

Trigonometric Functions: [18%]

Units	Weight	Description of Expectations
3	10%	T1 demonstrate an understanding of the meaning and application of radian measure
		T2 make connections between trigonometric ratios and the graphical and algebraic representations of the corresponding trigonometric functions and between trigonometric functions and their reciprocals, and use these connections to solve problems
4	8%	T3 solve problems involving trigonometric equations and prove trigonometric identities

Exponential and Logarithmic Functions: [10%]

Units	Weight	Description of Expectations
5	10%	EL1 demonstrate an understanding of the relationship between exponential expressions and logarithmic expressions, evaluate logarithms, and apply the laws of logarithms to simplify numeric expressions
		EL2 identify and describe some key features of the graphs of logarithmic functions, make connections among the numeric, graphical, and algebraic representations of logarithmic functions, and solve related problems graphically
		EL3 solve exponential and simple logarithmic equations in one variable algebraically, including those in problems arising from real-world applications

Characteristics of Functions: [20%]

Units	Weight	Description of Expectations
6	10%	F1 demonstrate an understanding of average and instantaneous rate of change, and determine, numerically and graphically, and interpret the average rate of change of a function over a given interval and the instantaneous rate of change of a function at a given point
7	10%	F2 determine functions that result from the addition, subtraction, multiplication, and division of two functions and from the composition of two functions, describe some properties of the resulting functions, and solve related problems
		F3 compare the characteristics of functions, and solve problems by modelling and reasoning with functions, including problems with solutions that are not accessible by standard algebraic techniques

* Weights are subject to change – they will reflect the amount of time spent on each expectation.

POLICIES AND PROCEDURES

Students have been provided with a copy of the West Carleton Secondary School Assessment and Evaluation Policies and Procedures as laid out by OCDSB.

Attendance:

If a student is absent from class, he or she will consult the teacher to determine assignments missed, will complete these assignments, and will request extra help if necessary.

Homework:

Homework will be assigned on a daily basis. Completion of homework is necessary to achieve success in the course. The amount of homework increases as the level increases.

Checking your homework with the answers at the back of the textbook is essential!

Test Policy:

If your child is aware that he/she will miss a test due to an appointment/sports event etc., it is the student's responsibility to let the teacher know **AHEAD** of time. The student will then make arrangements with the teacher to write the test **AHEAD** of time. Department policy requires that students verify any absences from tests with a note from a parent, guardian or a doctor. **The student will be expected to write the missed test after school on the first Wednesday of the month.**

Students may be given a one-time opportunity to replace **ONE** unit test with a make-up test near the end of the semester. In order to qualify for this opportunity the student will be asked to do extra review for that unit. The dates will be announced ahead of time.

IMPORTANT NOTE: If a student writes a compensation test, then that test will **not** qualify for a make-up test at the end of the semester.

Summative Evaluations

All mathematics students are required by the Ontario Ministry of Education to perform a rich assessment task towards the end of the semester. Specific dates for these evaluations will be announced by the classroom teacher. **This is part of the 30% summative evaluation; 20% for the exam and 10% for the summative. Students cannot miss either evaluation unless they have a medical certificate.**

Math Help

Students should contact their teacher to arrange additional math help outside of class time if needed. It is recommended students seek extra help for any topics they find difficult. Math is a subject that builds on previous concepts and ignoring a problem area will only lead to greater difficulty later in the course.

Thank You
West Carleton Mathematics Department