



# WCI Course Outline 2014-2015

## MCF 3MI: Grade 11 functions and applications.

<b>Welcome</b>	I am extremely pleased to welcome you to WCI and to my class. I look forward to getting to know you as we work our way through Grade 11 math this year!
<b>Course Code</b>	MCF 3MI
<b>Guideline</b>	The Ontario Curriculum Grades 11 and 12: Mathematics (Revised 2005)
<b>Textbook</b>	<u>Nelson: Functions and Applications 11</u>
<b>Course Description</b>	This course introduces basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric, and exponential functions and their use in modelling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.
<b>Overall Expectations</b>	By the end of this course, students will: <ul style="list-style-type: none"><li>• expand and simplify quadratic expressions, solve quadratic equations, and relate the roots of a quadratic equation to the corresponding graph;</li><li>• demonstrate an understanding of functions, and make connections between the numeric, graphical, and algebraic representations of quadratic functions;</li><li>• solve problems involving quadratic functions, including problems arising from real-world applications.</li><li>• simplify and evaluate numerical expressions involving exponents, and make connections between the numeric, graphical, and algebraic representations of exponential functions;</li><li>• identify and represent exponential functions, and solve problems involving exponential functions, including problems arising from real-world applications;</li><li>• demonstrate an understanding of compound interest and annuities, and solve related problems.</li><li>• solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications;</li><li>• demonstrate an understanding of periodic relationships and the sine function, and make connections between the numeric, graphical, and algebraic representations of sine functions;</li><li>• identify and represent sine functions, and solve problems involving sine functions, including problems arising from real-world applications.</li></ul>

<b>Evaluation and Essential course Components</b>	Tests, Quizzes, Assignments	70%
	Summative Assessments/Final Exam	30%

<b>Topics</b>	<b>Unit</b>	<b>Topic</b>
	1	Prerequisite Algebraic Skills
	2	Triangle Trigonometry
	3	Solving Quadratic Equations
	4	The Concept of a Function
	5	Quadratic Functions
	6	Exponential Functions
	7	Periodic Functions

- 8 Financial Applications of Exponential Functions
- 9 Exam Review and Summative Activities

**Tests and Quizzes**

Missing tests or quizzes for reasons other than illness or emergencies is unacceptable. Students involved in extra-curricular activities, medical appointments, etc., are expected to arrange an alternate time to write their test/quiz **BEFORE** their absence. If students are absent on a test day due to illness or emergency, they will write their test on their first day back to class. A doctor's or parental note may be requested to verify these situations.

**Late Work Policy**

At WCI the expectation is that students will submit all required work by the assigned due date as evidence of their learning. Students who fail to meet a due date for an essential course component will be subject to the completion policy found the student planner. Failure to submit this work, despite these interventions, will be recorded as incomplete and may result in a loss of credit.

*"The appropriate consequence for failing to complete an assignment is completing the assignment"*  
(Reeves, 2004)

**Cheating/Plagiarism Policy**

At WCI the expectation is that students will submit their own original work for the purpose of demonstrating their learning. In the event that cheating or plagiarism occurs, the following consequences may be implemented, in consultation with administration, depending on the situation:

- The student may be required to redo all or part of the assignment or assessment.
- The student may be required to complete an alternate assignment of assessment.
- The student's work may be treated as a missed assignment.
- There may be other consequences that are determined to be appropriate, including disciplinary consequences as outlined in the Cheating/Plagiarism section of the student planner.

**Learning Skills**

The development of learning skills and work habits is an integral part of a student's learning. The achievement of these skills is officially reported on the Provincial Report Card. The evaluation of learning skills and work habits is reported as follows: E-Excellent, G-Good, S-Satisfactory, and N-Needs Improvement. For a full description of the six Learning Skills; Responsibility, Organization, Independent Work, Collaboration, Initiative, and Self-Regulation, please see the WCI Student Planner.

**Extra Help**

I am happy to provide extra help to any students who are interested. Students should meet with me to arrange a time to come in.

**Contact**

**Phone: 519-884-9590 mailbox #TBA**

**Email: [evelyn\\_greer@wrdsb.on.ca](mailto:evelyn_greer@wrdsb.on.ca)**

**Website: <http://greerwci.weebly.com>**



**Signatures**

Please sign below indicating you have read and understood this course outline.

\_\_\_\_\_

Student

\_\_\_\_\_

Parent/Guardian

\_\_\_\_\_

Date

\_\_\_\_\_

Date