Waterloo Collegiate Institute

MPM 1DI: Grade 9 Academic Mathematics

Course Outline 2014-2015

Welcome

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 9 math this year!

Course Code

MPM1DI

Guideline

The Ontario Curriculum Grades 9 and 10: Mathematics (Revised 2005)

Textbook

Nelson: Mathematics 9 (Zimmer, Kirkpatrick et al.)

Course Description

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

Overall Expectations

By the end of this course, students will:

- demonstrate an understanding of the exponent rules of multiplication and division, and apply them to simplify expressions

- manipulate numerical and polynomial expressions, and solve first-degree equations

- apply data-management techniques to investigate relationships between two variables

- demonstrate an understanding of the characteristics of a linear relation

- connect various representations of a linear relation

- determine the relationship between the form of an equation and the shape of its graph with respect to linearity and non-linearity

- determine, through investigation, the properties of the slope and y-intercept of a linear relation

- solve problems involving linear relations

- determine, through investigation, the optimal values of various measurements

- solve problems involving the measurements of two-dimensional shapes and the surface areas and volumes of three-dimensional figures

- verify, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems

Evaluation and Essential course Components

Tests, Quizzes, Assignments	70%
EQAO Assessment of Mathematics (5% - Booklet 1, 5% - Booklet 2)	10%
Summative Assessments/Final Exam	20%

Topics

Unit	Topic	Approximate Periods
1	Rational Numbers and Exponents	13
2	Algebra	10
3	Equations	13
4	Graphing Relations	12
5	The Equation of a Straight Line	12
6	Geometry	11
7	Measurement	14

Tests and Quizzes

Missing tests or quizzes for reasons other than <u>illness or emergencies</u> 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 <u>illness or emergency</u>, 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)

Missing Assignment Recovery Support (MARS)

A program to support our Grade 9 students. This support program is a strategy that can be used to help students complete missing MAJOR assignments. Students will be told ahead of time which assignments are considered major. This program requires the student to go to the Student Success room for the first half of their lunch period and complete the missing assignment. Students will attend every day until this assignment is finished. This is a mandatory program. Please see parent letter for more details.

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. Regular extra help hours will be posted in the classroom. If regular schedules times do not suit students should meet with me to arrange a time to come in.

Contact

Phone: 519-884-9590 mailbox#4410

Email: evelyn_greer@gmail.com

Website: greerwci.weebly.com

Signatures

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

_____   _____
Student   Parent/Guardian

_____   _____
Date   Date

Mrs. J. Horst
Waterloo Collegiate Institute, Math Department