Waterloo-Oxford District Secondary School
Mathematics Department

STUDENT COURSE OUTLINE
MPM 1DI-02 2019-2020

Textbook: McGraw-Hill Ryerson Principles of Mathematics 9 Replacement cost $90.00
Mrs. L. Behnke http://teachers.wrdsb.ca/behnke/

First Term Report Card Distribution: *Semester 1*: November 21
Parent Teacher Night: *Semester 1*: October 23
Final Reports ready: *Semester 1*: February 13

Units of Study (Strands)

Unit	Title	Essential Skills
1 – 4%	Grade 8 Review Number Sense Strand	
2– 10%	Polynomials Algebra Strand	• Use exponent laws appropriately • Collect like terms • Add and subtract polynomials • Expand and simplify polynomial expressions (distributive property)
3– 10%	Solving Equations Algebra Strand	• Solve simple and multi-step equations (including equations with fractions) • Rearrange formulas involving variables in the first degree • Solve word problems that can be modelled with an equation with one variable
4– 7%	Linear Relations Linear Relations Strand	• interpret the meanings of points on a scatter plot • describe trends and relationships in data and make inferences from the data • construct tables of values, graphs and equations to represent linear relations of situations • construct tables of values, scatter plots and lines or curves of best fit for collected data • identify properties of linear relations and apply these to determine if a relation is linear • determine the equation of a line of best fit • determine an unknown value of a linear relation using a table of values, the equation, or by interpolating or extrapolating from a graph • describe a situation to explain the events illustrated on a graph or vice-versa
5– 8%	Analytic Geometry I Analytic Geometry Strand	• Compare the properties of direct and partial variation • Determine and use various formulas for slope • Understand that slope is a rate of change • Determine if a relation is linear or non-linear
6– 10%	Analytic Geometry II Analytic Geometry Strand	• Identify the equation of a horizontal and vertical line • Graph a line in $y = mx + b$ form • Identify a linear equation in standard form • Graph a line using intercepts • Understand the properties of parallel and perpendicular lines • Find an equation of a line given: Slope and y-intercept, Slope and a point, Two points • Graph two lines on a grid and determine the point of intersection • Interpret the meaning of the point of intersection in a real-world context
7– 8%	Geometry Geometry Strand	• Describe the properties and relationships of the interior and exterior angles of polygons • Describe the properties of polygons (e.g., midpoints, diagonals, etc.) • Illustrate a statement about a geometric property by demonstrating with multiple examples OR deny the statement based on a counter example. • Solve problems involving the above situations.
8– 5%	2D Measurement Measurement Strand	• Solve problems involving the areas and perimeters of composite and 2-D shapes • Determine maximum area and minimum perimeter of a rectangle given fixed information
9– 8%	3D Measurement Measurement Strand	• Use the formulas for the volume and surface area of a prism, pyramid, cone and sphere • Solve problems involving the surface areas and volumes prisms, pyramids, cylinders, cones, and spheres including composite figures • Determine minimum surface area and maximum volume of square-based prisms and cylinders • Solve word problems involving the max/min of geometric shapes

Examination: *Semester 1*: January 27, 2020
EQAO: *Semester 1*: January 20-21, 2020 (2 in class periods)

Evaluation:

Course Work	70 %
Exam	20 %
EQAO	10%
TOTAL	100 %

EXPECTATIONS:

1. **Homework**

Mathematical skills are developed in the classroom and are strengthened during homework and study sessions; difficulties must be discussed with your teacher – individually or in either small group or full class situations. Be conscientious about doing your homework. Be sure to check your answers and see your teacher early about difficulties; do not let them drag on until the end of a unit

2. **Extra Help**

I am happy to provide extra help in your math classroom every day at lunch. If you require help before or after school, please make arrangements with me ahead of time.

3. **Policy regarding missed Tests and Quizzes**

Students are expected to write the test or quiz on the **FIRST DAY** back to school. See your teacher to write your test.

All **unit tests** are considered **major components** of the course and must be completed to earn this credit:

In the event a student fails to follow through on a missed unit test, the teacher will:

a) Speak with the student to negotiate a new test date.
b) Communicate with the student's parent or guardian about the missed test.

Tests not completed after the negotiated date will be designated as incomplete. The essential learning skills required for this test will still need to be demonstrated in order to earn the course credit.

Failure to complete non-major quizzes and assignments or missing them for any invalid reason MAY result in a mark of zero.

4. **Policy regarding Attendance and Lates**

The Waterloo-Oxford District Secondary School policy states that all students are expected to attend all classes and arrive on time. Excessive absences may contribute, directly or indirectly to the student losing the credit.

When the bell rings students should be in their seats ready to begin class. If a student arrives late he/ she should sit down quietly and join the class. After the third late a detention will be assigned in the office or with the teacher where the student is expected to catch up on math work.

5. **Supplies**

Bring to class with you EVERY DAY:

- Scientific Calculator
- Chromebook
- 3 ring binder with paper
- pencil, eraser and ruler
- textbook

**Note Calculators may NOT be shared during assessments and will NOT be lent to you by the teacher.

The use of cellphones, audio- or video-recording devices, digital music players or e-mail or text messaging devices during the assessment is prohibited.

6. **Class notes:** Class notes will be available on Mrs. Behnke's web-site (http://teachers.wrdsb.ca/behnke) which can also be accessed through the school website at: http://wod.wrdsb.ca/academics/mathematics. It is your responsibility to write the note out and be caught up for the next class if you are away. Please see me if you have any questions about the posted lessons and/or notes.