North Grenville District High School
Upper Canada District School Board

DATE: September 8, 2015

COURSE OUTLINE:

Course: MFM 2P1, Foundations of Mathematics, Applied

Prerequisite: *Foundations of Mathematics, Grade 9, Applied (MFM1P1) or Principles of Mathematics, Grade 9, Academic (MPM1D1)*

This course was designed with the Ontario Curriculum Policy Document
http://www.edu.gov.on.ca/eng/curriculum/secondary/

Teacher: Mr. C. Stewart
Principal: Mr. D. Cole

COURSE DESCRIPTION

This course enables students to consolidate their understanding of linear relations and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relations. Students will investigate similar triangles, the trigonometry of right triangles, and the measurement of three-dimensional figures. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

COURSE WEBSITE

Students and parents can access course information by going to www.ltngdhs.weebly.com and selecting MFM 2P from "Find Your Class".

AREAS/UNITS OF STUDY

Modelling Linear Relations	• manipulate and solve algebraic equations, as needed to solve problems; • graph a line and write the equation of a line from given information; • solve systems of two linear equations, and solve related problems that arise from realistic situations.
Measurement and Trigonometry	• use their knowledge of ratio and proportion to investigate similar triangles and solve problems related to similarity; • solve problems involving right triangles, using the primary trigonometric ratios and the Pythagorean theorem; • solve problems involving the surface areas and volumes of three-dimensional figures, and use the imperial and metric systems of measurement.
Quadratic Relations of the form $y=ax^2+bx+c$	• manipulate algebraic expressions, as needed to understand quadratic relations; • identify characteristics of quadratic relations; • solve problems by interpreting graphs of quadratic relations.

SAMPLE RESOURCE MATERIALS

Textbook: *Foundations of Mathematics 10, McGraw-Hill Ryerson, 2007*
Other: A scientific calculator is required. Students are encouraged to use available technologies, including their own, to support their learning. Some suggested apps, other software, websites and videos are available at http://ltngdhs.weebly.com/tools--resources.html.

ASSESSMENT, EVALUATION, and MARK BREAKDOWN

Term Report		Final Report	
Knowledge & Understanding	25%	Term Work	70%
Thinking/Inquiring/Problem Solving	25%	Culminating Task	10%
Communication	25%	Exam	20%
Application	25%		100%
	100%		

To ensure that assessment and evaluation are valid and reliable, and that they lead to improvement of student learning in Mathematics, strategies will be used that:

-address both what students learn and how well they learn
-are varied in nature, administered over a long period of time, and designed to provide opportunities for students to demonstrate the full range of their learning
-are appropriate for the learning activities used, the purpose of instruction, and the needs and experiences of the students
-are fair to all students
-ensure that each student is given clear directions for improvement
-promote students' ability to assess their own learning and set specific goals
-include the use of samples of students' work that provide evidence of their achievement

Additional Information concerning assessment practices, students and parents are encouraged to review http://ltngdhs.weebly.com/assessment.html.

CLASSROOM EXPECTATIONS

LESSONS & LEARNING OBJECTS: Details concerning what students are learning and objects (e.g., assignments, reading, videos, practice, etc.) that they can use to support their learning will be updated on a regular basis (also available by using the QR code, see right). Students are encouraged to use this table in keeping track of their learning in the course.

CLASSROOM EXPECTATIONS: Early in the semester, students and their teacher will co-create a class code that focuses on how we will continuously show respect for ourselves, others, and both the learning environment and process. The class code will be posted on the course webpage and will be re-visited on an ongoing basis for additions and/or revisions. Parents are encouraged to discuss the code with their son/daughter as to how it will assist them and their peers to learn Mathematics.

EXTRA HELP: Students who are having difficulties that aren't able to be resolved in class are encouraged to take advantage of extra help outside of class time. Assistance may be available from their MSIP teacher. Extra help will also be available, from the Math Department, over lunch: days, time(s), and room number(s) will be communicated to students in class, to parents electronically, and posted on the course webpage (http://ltngdhs.weebly.com/mfm-2p-semester-1.html).

INSTRUCTOR CONTACT INFORMATION

E-mail address: christopher.stewart@ucdsb.on.ca

School phone: (613) 258-3481

AGREEMENT – MFM 2P1

Parents/Guardians: Periodically, I like to send out e-mails regarding what students are learning, important dates, and other information. By providing your e-mail address, I can let you know what is happening in the course. Please return with your son/daughter to school or scan the completed form to christopher.stewart@ucdsb.on.ca. Thank you.

_____ _____
Student Name Student Signature

_____ _____
Parent/Guardian Name Parent/Guardian E-mail(s)

_____ _____
Parent/Guardian Phone Number(s) Parent/Guardian Signature

_____ M.S.I.P. pd. _____, Room #_____
Date

M.S.I.P Teacher _____

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