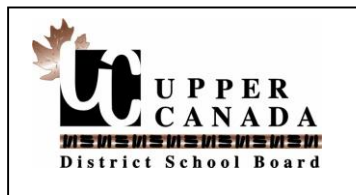


North Grenville District High School

Upper Canada District School Board

DATE: September 8, 2015



COURSE OUTLINE:

Course: MAP 4C1, Foundations of College Mathematics, Grade 12

Prerequisite: Grade 11 University/College or College Preparation Mathematics

Credit Value: 1

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 broaden their understanding of real-world applications of mathematics. Students will analyze data using statistical methods; solve problems involving applications of geometry and trigonometry; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades" (p135, [The Ontario Curriculum: Grades 11 and 12-Mathematics, Revised 2007](#)).

COURSE WEBSITE

Students and parents can access course information by going to www.ltngdhs.weebly.com and selecting MAP 4C from "Find Your Class".



AREAS/UNITS OF STUDY

Mathematical Models	<ul style="list-style-type: none">-evaluate powers with rational exponents, simplify algebraic expressions involving exponents, and solve problems involving exponential equations graphically and using common bases;-describe trends based on the interpretation of graphs, compare graphs using initial conditions and rates of change, and solve problems by modelling relationships graphically and algebraically; and-make connections between formulas and linear, quadratic, and exponential relations, solve problems using formulas arising from real-world applications, and describe applications of mathematical modelling in various occupations
Personal Finance	<ul style="list-style-type: none">-demonstrate an understanding of annuities, including mortgages, and solve related problems using technology;-gather, interpret, and compare information about owning or renting accommodation, and solve problems involving the associated costs; and-design, justify, and adjust budgets for individuals and families described in case studies, and describe applications of the mathematics of personal finance
Geometry & Trigonometry	<ul style="list-style-type: none">-solve problems involving measurement and geometry and arising from real-world applications;-explain the significance of optimal dimensions in real-world applications, and determine optimal dimensions of two-dimensional shapes and three-dimensional figures; and-solve problems using primary trigonometric ratios of acute and obtuse angles, the sine law, and the cosine law, including problems arising from real-world applications, and describe applications of trigonometry in various occupations
Data Management	<ul style="list-style-type: none">-collect, analyze, and summarize two-variable data using a variety of tools and strategies, and interpret and draw conclusions from the data; and-demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations

SAMPLE RESOURCE MATERIALS

Textbook: *Foundations for College Mathematics 12*, McGraw-Hill Ryerson, 2009

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	<u>20%</u>
Application	<u>25%</u>		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, readings, videos, practice, etc.) that they can use to support their learning will be updated [regularly](#) (also available using the QR code, see right) on the course webpage. 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](#).

INSTRUCTOR CONTACT INFORMATION

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

School phone: (613) 258-3481



AGREEMENT – MAP 4C1

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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