COURSE:	Grade 12 Data Management **(Google Classroom key: ??????)**
CODE:	MDM4U1
TEXTBOOK:	Data Management 12, McGraw-Hill Ryerson ($90.00)
CREDIT VALUE:	One
PREREQUISITES:	11U Functions (MCR3U1) or 11M Functions & Applications (MCF3M1)
DEPARTMENT HEAD:	B. Merchant
COURSE TEACHERS:	I. Tam	Tel: 905-202-1234 (x 5010)	Email: ian.tam@yrdsb.ca
	Office hours: Periods 2, 4, after school

COURSE DESCRIPTION:

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analysing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. Students planning to enter university programs in business, the social sciences, and the humanities will find this course of particular interest.

~Source: The Ontario Curriculum, Grades 11 and 12, Mathematics (Revised), 2007
http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf

COURSE EXPECTATIONS:

This course is based on curriculum expectations found in the Ontario Curriculum: *Grades 11 and 12 Mathematics 2007 (Revised)*. A copy of this document is available in the Math Office as well as on-line at: *http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf.*

COURSE TOPICS:

1) Probability: sample spaces… dependent events… mutually exclusive events
2) Combinatorics: permutations… combinations… binomial theorem… probability
3) Probability distributions: binomial… geometric… hypergeometric… expectation
4) Statistics: cause & effect… bias & sampling… measures of central tendency… measures of spread… normal distribution… confidence intervals… hypothesis testing

ASSESSMENT AND EVALUATION:

Assessment *for/as* Learning may include, but is not limited to the following: diagnostic assessments, quizzes, conversations, observations, exit cards, cooperative learning strategies.

Assessment *of* Learning may include, but is not limited to the following: critical thinking problem sets, performance tasks, culminating projects, presentations, assignments, tests.

Knowledge & Understanding	25%
Application	20%
Communication	10%
Thinking	15%
Culminating project	10%
Final Exam	20%

Refer to the *Bur Oak Secondary School Assessment, Evaluation and Communication Policy*

<u>STUDENT WELL BEING</u>:
The Mathematics Department is committed to providing programming which accommodates students of all backgrounds. The department actively promotes classroom environments in which deep learning occurs, and in which the mental health and well-being of students is a priority.

- Teachers as "lead learners" will pay consistent attention to equity, inclusivity and mental health, while overall well-being will be at the forefront of modern learning[1].
- The role of students:
    - Honouring principles of differentiation in instruction, assessment and evaluation.
    - Student voice and involvement in the assessment process with emphasis on equity and inclusivity[2].
    - Student ownership of learning, using a model of gradual release of responsibility, with awareness of student mental health and well-being[3] throughout.

[1]Modern Learning is authentic and relevant deep learning that enables learners to create, connect, communicate, and share their learning with the world and be future ready.

[2]Equity and inclusive education:
- is a foundation of excellence;
- meets individual needs;
- identifies and eliminates barriers;
- promotes a sense of belonging;
- involves the broad community;
- builds on and enhances previous and existing initiatives;
- is demonstrated throughout the system.

[3]Well-being is a positive sense of self, spirit and belonging that we feel when our cognitive, emotional, social and physical needs are being met. Healthy development of the mind, body and spirit is contingent on balance and interconnectedness.

<u>NOTES:</u>
Learning is dependent on the degree of engagement with course content. Students are encouraged to participate by being punctual, present in class, reflecting on the course material, and sharing their thinking with their peers.

Homework is a part of the continuum of ideas discussed in class, and should be treated as such. Homework is assigned on a regular basis, and may include solving problems, theorizing, summarizing, and reflecting on the day's ideas. Students having difficulty with homework or with course concepts, are encouraged to speak with their teacher.

Students expecting to be absent on the day of an evaluation must make prior arrangements with their teacher. Students who are absent on the day of an assessment due to illness must contact the Bur Oak Secondary School attendance office (905-202-1234). Upon their return to class, such students may be required to provide a doctor's note explaining their prior absence. Students should also expect to write the evaluation on the day of their return.