



York Region District School Board
BUR OAK SECONDARY SCHOOL
Mathematics Department
Course Outline

COURSE:	Mathematics for College Technology, Grade 12
CODE:	MCT4C1
WORKBOOK:	Mathematics for College Technology 12 (\$15.00)
CREDIT VALUE:	One
PREREQUISITES:	MCF3M or MCR3U
DEPARTMENT HEAD:	B. Merchant
COURSE TEACHERS:	B. Merchant

COURSE DESCRIPTION:

This course enables students to extend their knowledge of functions. Students will investigate and apply properties of polynomial, exponential, and trigonometric functions; continue to represent functions numerically, graphically, and algebraically; develop facility in simplifying expressions and solving equations; and solve problems that address applications of algebra, trigonometry, vectors, and geometry. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for a variety of college technology programs.
<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. Exponential Equations
2. Polynomial Functions
3. Polynomial Equations
4. Trigonometry
5. Trigonometric Functions
6. Vectors
7. Geometry

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	25%
Communication	10%
Thinking & Inquiry	10%
Final Summative Assessment	10%
Final Exam	20%

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

STUDENT WELL BEING:

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 learning¹.
- 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 inclusivity².
 - Student ownership of learning, using a model of gradual release of responsibility, with awareness of student mental health and well-being³ throughout.

¹Modern 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.

²Equity 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.

³Well-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.

NOTES:

It is really important to us that you learn the material and that you enjoy and do well in the course. Please make every effort to keep up with the work, to be present and on time for class, and to participate every day.

Please bring a pencil, an eraser, a scientific calculator, a ruler, a protractor, a binder with lined paper and graph paper, and a textbook to class with you every day.

You will get homework on a regular basis. If you are having trouble with the homework or with ideas covered in class, please see your teacher for help.

If you know that you are going to be away on the day of an assessment, you must make arrangements prior to the assessment. If you are ill on the day of an assessment, one of your parents must leave a message with your teacher (905-202-1234) and provide verification of illness. You should be prepared to complete the assessment on the day you return.

Enjoy!