

Course Description:

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relations and their applications; solve and apply linear systems; verify properties of geometric figures using analytic geometry; and investigate the trigonometry of right and acute triangles. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

Level: Academic	Credit Value: 1.0	Program Enhancement Fee:
Pre-requisite: MPM2D	Department: Mathematics	

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, 2010
- Mathematics 10 Nelson (Replacement Cost:\$85.00) }
- The Ontario Curriculum, Grades 9-10 Revised (2005): Mathematics
- Printed packages provided by the teacher
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Course Evaluation: Student Evaluation consists of three components...**1) Learning Skills & Work Habits:**

Students are evaluated on 6 Learning Skills & Work Habits. They are:

- Responsibility
- Organization
- Independent Work
- Collaboration
- Initiative
- Self-Regulation

These six attributes are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card. They **are not** included in the course mark, unless specified in the curriculum expectations.

2) Term Mark (Assessment of Learning):

Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum is assessed in four categories:

- Knowledge and Understanding 30%
- Thinking and Inquiry 20%
- Communication 10%
- Application 10%

Evaluation of these four categories generates the term mark. **This term mark accounts for 70% of the final mark.**

It is the student's responsibility to submit evidence of learning.

3) Final Evaluation (Assessment of Learning):

The final evaluation, administered at or towards the end of the course is based on the evidence shown to the right. The final evaluation accounts for 30% of the final mark.

The final evaluation consists of (out of 30%):
{ exam } 30%

Final Mark = 70% Term Mark + 30% Final Evaluation

Please retain this page in the front of your notebook for future reference.

Course Outline:

Unit	Description	Approximate Length	Major Unit Evaluation
1) Analytic Geometry	Students will learn to determine the point of intersection of two lines and solve systems of linear equations by substitution and by elimination. Students will learn to determine the midpoint and length of a line segment, the equation of a circle, verify geometric properties and solve problems involving the slope.	{ 13 days }	Test
2) Quadratic Relations	Students will investigate non-linear relations, quadratic relations and transformations. Students will learn applications of quadratic relations in vertex form and solve for the zeros of quadratic relations.	{ 10 days }	Test
3) Factoring of Quadratic Relations	Students will review exponents. Students will learn the product of two binomials, factoring, applications and solving quadratic equations.	{ 11 days }	Test
4) Writing Quadratic Equations in Vertex Form	Students will learn completing the square, the discriminant and using quadratic formula to solve quadratic equations	{ 10 days }	Test
5) Trigonometry	Students will learn similar triangles, the primary trigonometric ratios, angle of elevation and depression and to solve right triangles.	{ 12 days }	Test
5) The Sine Law and The Cosine Law	Students will learn the Sine Law and the Cosine Law and to solve problems modelled by triangles	{ 10 days }	{ Test

Note: The order of the units of study may change due to student needs and resources available during the course.

General Information

Refer to the agenda for Wexford CSA Academic Conduct & Evaluation policies.

How to seek extra help:

- 1) Speak to your subject teacher and book a time to meet (Students & Parents).
- 2) Speak to a Peer Helper
- 3) Use the reliable sources on the Internet.
- 4) Homework Help (Grades 7 – 10): <http://homeworkhelp.ilc.org>
- 5) Math Coach: <http://tdsb.na3.acrobat.com/mathcoach>
- 6) { Recommended Resource: • www.explorelearning.com
• www.math.com
• www.resources.elearningontario.com

