Course Profile (Page 1)

Principles of Mathematics, Grade 10, Enriched
MPM2D3

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
Pre-requisite:	MPM1D3
Department:	Mathematics
Course Fees:	None

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools
- The Ontario Curriculum, Grades 9 and 10: Mathematics, 2005 (revised)
- Principles of Mathematics 10, McGraw-Hill Ryerson, 2008 (Replacement Cost: $95.00)

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	15%
• Application	35%

Evaluation of these four categories generates the term mark. The 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:

Exam	30 %

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

For a detailed description on Course Evaluation, see "How Did I Get That Mark!" at www.satec.on.ca

Course Conduct Policies: See Student Agenda.

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

Toronto District School Board

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Course Outline:

Unit	Description	Approximate Length	Major Unit Evaluation
Linear Systems	model and solve problems involving the intersection of two straight lines.	2 weeks	assignments, quizzes, tests
Analytic Geometry	solve problems using analytic geometry involving properties of lines and line segments.	2 weeks	assignments, quizzes, tests
Linear Programming	optimize systems of linear inequalities	1 week	assignments, quizzes, tests
Geometric Properties	verify geometric properties of triangles and quadrilaterals, using analytic geometry.	2 weeks	assignments, quizzes, tests
Quadratic Relations	determine the basic properties of quadratic relations; relate transformations of the graph of $y = x^2$ to the algebraic representation $y = a(x – h)^2 + k$;	3 weeks	assignments, quizzes, tests
Quadratic Expressions	expand and simplify second-degree polynomial expressions; factor polynomial expressions involving common factors, trinomials, and differences of squares.	2 weeks	assignments, quizzes, tests
Quadratic Equations	solve quadratic equations and interpret the solutions with respect to the corresponding relations; solve problems involving quadratic relations.	2 weeks	assignments, quizzes, tests
Trigonometry of Right Triangles	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.	2 weeks	assignments, quizzes, tests
Trigonometry of Acute Triangles	solve problems involving acute triangles, using the sine law and the cosine law.	2 weeks	assignments, quizzes, tests
Circle Geometry	determine characteristics of inscribed angles, central angles, angles in semicircles	1 week	

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

General Information:

Mathematics continually builds on previous lessons. Hence, daily attendance is important. Students are responsible for catching up on missed lessons and work.

It is expected that all students will write tests as a class group. If a student is unable to write the evaluation with the class, then the student must inform the teacher at least two school days in advance of the test so that alternate arrangements can be made.

Students who are absent on the day of the test due to illness or a family emergency must have their parents phone the math office at 416 396-3365 x20245 on the day of the test explaining why they will be absent. (Doctor's notes will be required from students who miss more than one scheduled test.) Alternate arrangements will be made for these students to write the test.

Students missing their tests or assignment deadlines due to unexplained absences will receive a mark of zero.

For more information on the missed test/assignment policies, please see the agenda.