Foundations of Mathematics
MFM2P1

Course Description:

This course enables students to consolidate their understanding of linear relations and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relations. Students will investigate similar triangles, the trigonometry of right triangles, and the measurement of three-dimensional figures. Students will consolidate their mathematical skills as they solve problems and communicate their thinking..

Level:	Applied
Credit Value:	1.0
Pre-requisite:	Grade
Co-requisite:	
Department:	Mathematics
Course Fees:	$0

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools
- The Ontario Curriculum Document Grades 9 and 10 Mathematics Revised 2005
- TIPS4RM

Course Evaluation: Student Evaluation consists of three components…

1) Learning Skills & Work Habits:

Students are evaluated on 6 Learning Skills & Work Habits. The 6 essential skills 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 Understanding   40%
- Thinking and Inquiry   15%
- Communication   15%
- Application   30%

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:

Culminating Task   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.

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Course Outline:

Unit	Description	Approximate Length	Unit Evaluation
Similar Triangles	Students will use their knowledge of ratio and proportion to investigate similar triangles and solve problems related to similarity.	2 weeks	assignments, tests, quizzes
Trigonometry	Solve problems involving right triangles, using the primary trigonometric ratios and the Pythagorean theorem; .	3 weeks	assignments, tests, quizzes
Equations of Lines	Graph a line and write the equation of a line from given information.	3 weeks	assignments, tests, quizzes
Graphical Models & Solutions	Identify characteristics of quadratic relations; solve problems by interpreting graphs of quadratic relations.	2 weeks	assignments, tests, quizzes
Linear Systems	Manipulate and solve algebraic equations, as needed to solve problems; solve systems of two linear equations, and solve related problems that arise from realistic situations.	3 . weeks	assignments, tests, quizzes
Intro to Quadratics	Identify characteristics of quadratic relations; solve problems by interpreting graphs of quadratic relations.		assignments, tests, quizzes
Quadratics in Standard Form	Manipulate algebraic expressions, as needed to understand quadratic relations;	3 weeks	assignments, tests, quizzes
Surface Area & Volume	Solve problems involving the surface areas and volumes of three-dimensional figures, and use the imperial and metric systems of measurement	2 weeks	assignments, tests, quizzes

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.