Foundations of College Mathematics, Grade 12
MAP4C1

Course Description:

This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyse data using statistical methods; solve problems involving applications of geometry and trigonometry; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades.

Level:	College
Credit Value:	1.0
Pre-requisite:	MBF3C
Department:	Mathematics
Course Fees:	None

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools
- The Ontario Curriculum Document, Grades 11 and 12: Mathematics, 2007 (revised)
- TIPS4RM, Ontario Mathematics Coordinators Association

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	35%
• Thinking and Inquiry	15%
• 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:

Summative Project	15 %
Exam	15 %

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
Working with Data	Collect, analyse, and summarize one-variable data using a variety of tools and strategies, and interpret and draw conclusions from the data; demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations.	2 week	assignments, tests, and quizzes
Two Variables Data Analysis	Collect, analyse, and summarize two-variable data using a variety of tools and strategies, and interpret and draw conclusions from the data; demonstrate an understanding of the applications of data management used by the media and the advertising industry and in various occupations; describe trends based on the interpretation of graphs, compare graphs using initial conditions and rates of change, and solve problems by modelling relationships graphically and algebraically	3 weeks	assignments, tests, and quizzes
Exponentials	Evaluate powers with rational exponents, simplify algebraic expressions involving exponents, and solve problems involving exponential equations graphically and using common bases.	3 weeks	assignments, tests, and quizzes
Personal Finance	Demonstrate an understanding of annuities, including mortgages, and solve related problems using technology; gather, interpret, and compare information about owning or renting accommodation, and solve problems involving the associated costs; design, justify, and adjust budgets for individuals and families described in case studies, and describe applications of the mathematics of personal finance.	3 weeks	assignments, tests, and quizzes
Geometry	Solve problems involving measurement and geometry and arising from real-world applications; explain the significance of optimal dimensions in real-world applications, and determine optimal dimensions of two-dimensional shapes and three-dimensional figures.	3 weeks	assignments, tests, and quizzes
Trigonometry	solve problems using primary trigonometric ratios of acute and obtuse angles, the sine law, and the cosine law, including problems arising from real-world applications, and describe applications of trigonometry in various occupations.	3 weeks	assignments, tests, and quizzes
Culmulating Activity	An overall culmulative project accountable for 15% of the final grade.	1 week	Project

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

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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.