

Course Description:

This course enables students to broaden their understanding of mathematics as a problemsolving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; develop their ability to reason by collecting, analysing, and evaluating data involving one variable; connect probability and statistics; and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

| | | |
|-----------------------------|--------------------------------|---------------------------------|
| Level: College | Credit Value: 1.0 | Program Enhancement Fee: |
| Pre-requisite: MFM2P | Department: Mathematics | None |

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools, 2010
- The Ontario Curriculum, Grades 11 & 12: Mathematics, 2007 revised
- Foundations for College Mathematics 11. McGraw-Hill Ryerson (Replacement Cost:\$75.00)

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 | • Collaboration |
| • Organization | • Initiative |
| • Independent Work | • 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 | 25% |
| • Thinking and Inquiry | 10% |
| • Communication | 10% |
| • Application | 25% |

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.

Foundations for College Mathematics

Course Profile

CrsCde

| Course Outline: | | Approximate Length | Major Unit Evaluation |
|---|---|---------------------------|------------------------------|
| Unit | Description | | |
| 1. TRANSFORMATIONS OF QUADRATIC RELATIONS | In this unit students will learn how to make connections between the numeric, graphical, and algebraic representations of quadratic relations, and use the connections to solve problems. Students will learn the key characteristics of the quadratic models and the role of their transformations. | 15 days | UNIT TEST |
| 2. APPLICATIONS OF QUADRATIC MODELS | In this unit students will learn how to appropriately use quadratic models in solving real life application problems. Students will be able to choose the right strategy and the right form of quadratic models to solve such problems. | 15 days | UNIT TEST |
| 3. EXPONENTIAL RELATIONS | In this unit students will develop an understanding of exponents, and make connections between the numeric, graphical, and algebraic representations of exponential relations. By the end of this unit, students will know how to describe and represent exponential relations, and solve problems involving exponential relations arising from real-world applications. | 15 days | UNIT TEST |
| 4. COMPOUND INTEREST | In this unit students will learn how to compare simple and compound interest, relate compound interest to exponential growth, and solve problems involving compound interest. | 15 days | UNIT TEST |
| 5. PERSONAL FINANCE | In this unit students will learn how to compare services available from financial institutions, and solve problems involving the cost of making purchases on credit. By the end of this unit students will know how to interpret information about owning and operating a vehicle, and solve problems involving the associated costs. | 8 days | PROJECT |
| 6. GEOMETRY AND TRIGONOMETRY | In this unit students will learn how to represent, in a variety of ways, two-dimensional shapes and three-dimensional figures arising from real-world applications, and solve design problems. This unit will also prepare students to solve problems involving trigonometry in acute triangles using the sine law and the cosine law, including problems arising from real-world applications. | 15 days | UNIT TEST |
| 7. DATA MANAGEMENT | In this unit students will learn how to solve problems involving one-variable data by collecting, organizing, analysing, and evaluating data. By the end of the unit, students will know how to determine and represent probability, and identify and interpret its applications. | 7 days | PROJECT |

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) Speak to your Guidance Counsellor (Students & Parents), who can guide you to other sources.

RECOMMENDED INTERNET RESOURCES

www.explorellearning.com

ca.ixl.com

www.khanacademy.org

Homework is assigned on a regular basis. Homework completion and regular attendance are key to being successful in this course.