



OTTAWA  
CATHOLIC  
SCHOOL BOARD

## Grade 12 Mathematics for Work and Everyday Life MEL4E

Inspired education.  
Inspiring students.

**Prerequisite Course:** Mathematics for Work and Everyday Life, Grade 11, Workplace Preparation

**Description and Overall Expectations:** This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will investigate questions involving the use of statistics; apply the concept of probability to solve problems involving familiar situations; investigate accommodation costs, create household budgets, and prepare a personal income tax return; use proportional reasoning; estimate and measure; and apply geometric concepts to create designs. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Math Processes:** problem-solving, reasoning and proving, reflecting, selecting tools and computational strategies, connecting, representing, and communicating.

**Reasoning With Data:** collect, organize, represent, and make inferences from data using a variety of tools and strategies, and describe related applications; determine and represent probability, and identify and interpret its applications.

**Personal Finance:** gather, interpret, and compare information about owning or renting accommodation and about the associated costs; interpret, design, and adjust budgets for individuals and families described in case studies; demonstrate an understanding of the process of filing a personal income tax return, and describe applications of the mathematics of personal finance.

**Applications of Measurement:** determine and estimate measurements using the metric and imperial systems, and convert measures within and between systems; apply measurement concepts and skills to solve problems in measurement and design, to construct scale drawings and scale models, and to budget for a household improvement; identify and describe situations that involve proportional relationships and the possible consequences of errors in proportional reasoning, and solve problems involving proportional reasoning, arising in applications from work and everyday life.

**Course Resources:** See teacher and school for the list of key resources, digital tools, sites, passwords, including replacement cost for resources if lost or damaged.

**Catholic Graduate Expectations:** Our goal for all students is to experience an education based on our Catholic Graduate Expectations.

We work in community to develop graduates that are:

- Discerning Believers Formed in the Catholic Faith Community
- Effective Communicators
- Reflective and Creative Thinkers
- Self-Directed, Responsible, Life-Long Learners
- Collaborative Contributors
- Caring Family Members
- Responsible Citizens

<http://www.iceont.ca>

**Assessment, Evaluation and Reporting:** The primary purpose of assessment and evaluation is to improve student learning. Students will understand what is expected of them, using learning goals, and success criteria, based on the overall expectations. Feedback (self, peer, teacher) supports learning, and plays a critical role in academic achievement and success.

The development of learning skills and work habits is a key indicator of future success. The following learning skills and work habits will be developed, assessed, and reported during this course:

1. Responsibility fulfills responsibilities and commitments (*e.g. accepts and acts on feedback*)
2. Organization manages time to complete tasks and achieve goals (*e.g. meets goals, on time*)
3. Independent work uses class time appropriately to complete tasks (*e.g. monitors own learning*)
4. Collaboration works with others, promotes critical thinking (*e.g. provides feedback to peers*)
5. Initiative demonstrates curiosity and an interest in learning (*e.g. sets high goals*)
6. Self-Regulation sets goals, monitors progress towards achieving goals (*e.g. sets, reflects goals*)

Group work supports collaboration, an important 21<sup>st</sup> century skill. This will be assessed only as a learning skill. Homework may also be assessed as a learning skill. Evaluation completed in class will be based only on individual student work. Regular attendance is important to support group work, various forms of feedback, and to allow students to demonstrate evidence of their learning. Students are responsible for providing evidence of their own learning (with references where required), in class, within given timelines. Next steps in response to academic integrity issues, such as lack of work completion, plagiarism, or other forms of cheating, range from providing alternate opportunities, to a deduction of marks.

The achievement chart identifies four levels, based on achievement of the overall expectations:

- |         |   |           |
|---------|---|-----------|
| Level 1 | achievement falls below the provincial standard | (50-59%)  |
| Level 2 | achievement approaches the provincial standard  | (60-69%)  |
| Level 3 | achievement is at the provincial standard       | (70-79%)  |
| Level 4 | achievement surpasses the provincial standard   | (80-100%) |

The report card grade will be based on evidence of student performance, including observations, conversations and student products. Consideration will be given to more recent evidence (skill development) and the most consistent level of achievement.

#### **Mark Breakdown:**

Term Work (70%) will include a variety of rich assessment tasks designed to demonstrate students' development in their knowledge and understanding, thinking and inquiry, communication and application, of all overall expectations.

Summative evaluation (30%) takes place towards the end of the semester, is completed in class, and provides the final opportunity for students to demonstrate what they know, and the skills they have learned, based on the overall expectations. In Mathematics for Work and Everyday Life 4E, the summative evaluation will consist of a rich summative assessment task (30%).

**Awarding of Course Credit:** Students who demonstrate evidence of achievement of overall expectations, **and** earn a mark of 50% or greater, will earn one credit for the course with the following exception:

Students who do not complete their summative evaluation (exam and/or end of year performance task) will not earn their credit regardless of their mark.

#### **Student and Parent/Guardian Acknowledgement**

We have read the above course outline and are aware of the student responsibilities to attend class on a regular basis and to provide evidence of learning within the established timelines.

Student's Name (print): \_\_\_\_\_ Student's Signature: \_\_\_\_\_

Parent/Guardian Name (print): \_\_\_\_\_ Parent/Guardian Signature: \_\_\_\_\_