ST. MICHAEL CATHOLIC HIGH SCHOOL
PRINCIPLES OF MATHEMATICS – GRADE 10 ACADEMIC
MPM2D

<u>SOURCE POLICY DOCUMENT</u>:
Ministry of Education and Training:
The Ontario Curriculum, Grades 9 and 10 Mathematics, 2005.

<u>CREDIT VALUE</u>: 1.0

<u>COURSE DESCRIPTION</u>:
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.

<u>ITEMS NECESSARY FOR THE COURSE</u>
Every day the following items should be brought to class:

- ➢ 3 ring binder with **LINED** and **GRAPH PAPER**
- ➢ textbook
- ➢ Scientific calculator (you will need one for grade 10, 11 and 12 – a fraction button will help!)
- ➢ Pencil(s), eraser, ruler

<u>TEXTBOOK</u>: MHR: Principles of Mathematics 10
<u>TEACHER</u>: Mr. N. White
<u>TERM</u>: Semester 1, 2023-24

<u>UNIT TITLES</u>:
Unit 1: Linear Systems
Unit 2: Quadratic Relations 1
Unit 3: Quadratic Relations 2
Unit 4: Right-Triangle Trigonometry
Unit 5: Quadratic Relations 3
Unit 6: Acute Triangle Trigonometry
Unit 7: Analytic Geometry

EVALUATION OF STUDENT ACHIEVEMENT:

Course Grade Weighting

Term Work: 70%

Evaluation consists of:

a) <u>Unit Tests</u> - at the end of each strand unit. Testing techniques include a variety of formats.

b) <u>Assignments; Homework</u> - these may or may not require a significant amount of individual work both at home and in class

c) <u>Unit Summative Assessment Tasks</u> - Individual and group performance skills will be assessed using traditional and performance based tasks, over a period of a few/several days. At the end of specific units, and at the end of the course, students will demonstrate their achievement of the expectations of the course. They will do this by solving problems which require them to:

Form conjectures; Model situations; Gather, organize and display data; Carry out pencil and paper routines; Identify necessary conditions in a problem and being aware of what can be ignored in a problem; Communicate reasoning and results; Demonstrate their skills using technology towards specific application(s).

Final Evaluation: 30%

Evaluation Consists of:

a) A Final Summative Assessment - (10-20%)

b) Final Examination (10-20%)

ACHIEVEMENT CATEGORIES:

The categories represent four broad areas of knowledge and skills within which the expectations for any given mathematics course are organized. The categories of knowledge and skills are described as follows:

Knowledge and Understanding – subject specific content acquired in each course and the comprehension of its meaning and significance

Thinking – the use of critical and creative thinking skills and/or processes (planning skills, processing skills and critical/creative thinking processes)

Communication - The conveying of meaning through various oral, written, and visual forms.

Application - The use of knowledge and skills to make connections within and between various contexts.

LEARNING SKILLS

Students will also be evaluated on their learning skills, which include the following:

- ➢ Responsibility
- ➢ Organization
- ➢ Independent Work
- ➢ Collaboration
- ➢ Initiative
- ➢ Self-Regulation

Website

www.nowyoudothemath.weebly.com (go to the course codes at the top and click on MPM2D).

GENERAL EXPECTATIONS:

Be Here

The best way to learn the material is to be in class and present for the lessons.
If you aren't here it is **YOUR** responsibility to get caught up! The best place to do that is the website. Lessons are typically posted minutes after class is completed. Therefore, there is no excuse not to be caught up when you return to school. If you don't have a computer or internet at home, please indicate that at the end of the course outline so I am aware from the beginning.

TESTS will be announced at least **THREE** days in advance of when they are to be written. If a student is legitimately absent, with parental/guardian knowledge, the day of a test, s/he must be prepared to write the test **the day they return** to school.

A missed test without reason results in a mark of zero. Should the student be involved in a school approved activity on the day of a test, it becomes the **responsibility of the student** to inform the teacher well in advance so that arrangements can be made. If absent for a summative task, the student must arrange a time to complete this activity or a mark of zero will result.

Be Punctual

Detentions will be assigned as per school policy for lateness. Three late arrivals constitute a detention followed by one for every subsequent arrival. If you aren't prepared when you arrive for class and have to go back to your locker, that counts as a late. Come prepared and in proper uniform to class always!

Be Proactive

You are responsible for your own achievement in this class.

Homework

Homework completion is essential for success. Take advantage of extra help offered at lunchtime – speak to me in advance and I will arrange to meet with you! Homework is to be kept separately in either a coil notebook or duotang so it can be collected periodically. It MUST be at school every day so it can be collected.

Keep Up-to-date

The course website is available to see missed work and notes and check test dates. Use it to keep yourself informed. Course notes will NOT be photocopied if you miss class, it is your responsibility to use the website.

Be Respectful

Show respect to your peers, to your teacher, and to yourself. Remember where you are, and what you are trying to achieve. Electronics are not to be brought to class unless stated. If I see them I will take them and you can pick them up at the office at the end of the day.

Take care of your resources. Please cover textbooks. If you damage a textbook, you will have to pay for all or a portion of replacing it.
  - Graffiti – mild ($5), moderate ($15), severe (cost of textbook $95)
  - Water/Beverage Damage – cost of book
  - Pages ripped or removed – mild ($5), severe (cost of textbook)
  - Textbook cover damage – folds, gashes, rips, etc... ($5 - $10)
  - Lost book or wrong book returned (cost of textbook)

If you damage a graphing calculator, you will have to pay to replace it ($150)!!!

Dear Parent/Guardian

Please review this course outline as well as the course website, sign below indicating you have done so, and have your son/daughter return this sheet. It is my hope that you involve yourself in your child's learning.

It is very important that your son/daughter has these expectations to motivate him/herself to complete his/her daily work in the classroom and at home. Please feel free to contact the school if you have any questions about the course, your son/daughter's progress or any other concerns.

Thank you for your support,

Nick White
613-258-7232

Website: www.nowyoudothemath.weebly.com (go to the course codes at the top and click on MPM2D). This page should be live in the next day or so.
Email: nick.white@cdsbeo.on.ca