

## DEPARTMENT OF ACADEMIC UPGRADING

### COURSE OUTLINE –Fall 2022

#### MA0060 (A2, B2, C2): BASIC MATHEMATICS I–5 (0-0-7.5) HS 112.5 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

#### Ma0060 A2

|                      |                       |                |                       |
|----------------------|-----------------------|----------------|-----------------------|
| <b>INSTRUCTOR:</b>   | Sheryl Heikel         | <b>PHONE:</b>  | (780) 539-2059        |
| <b>OFFICE:</b>       | C417                  | <b>E-MAIL:</b> | sheikel@nwpolytech.ca |
| <b>OFFICE HOURS:</b> | TBD or by appointment |                |                       |

#### Ma0060 B2 C2

|                      |                       |                |                         |
|----------------------|-----------------------|----------------|-------------------------|
| <b>INSTRUCTOR:</b>   | Doris LaChance        | <b>PHONE:</b>  | (780)539-2810 or 2234   |
| <b>OFFICE:</b>       | A205 or C202          | <b>E-MAIL:</b> | dlachance@nwpolytech.ca |
| <b>OFFICE HOURS:</b> | TBD or by appointment |                |                         |

#### CALENDAR DESCRIPTION:

This course is a modularized program of study which covers a review of reading, writing and rounding of whole numbers, if required, as well as whole number multiplication and division. Problem-solving is emphasized throughout, and squares, square roots, and the order of operations are introduced.

#### PREREQUISITE(S)/COREQUISITE:

Appropriate math placement test score and EN0080 placement

#### REQUIRED TEXT/RESOURCE MATERIALS:

Tobey, John; et al. STEPPING IT UP Preparing for College Math. Toronto: Pearson, 2011.

#### DELIVERY MODE(S):

MA0060 is a modularized math course.

## COURSE OBJECTIVES:

Introducing students to:

- The concept of whole numbers
- Arithmetic manipulation of numbers
- The concept of expression, exponents, and order of operations
- Problem-solving skills and the application of numbers

## LEARNING OUTCOMES:

As a result of taking this course, students will gain the ability to:

- Write and read standard numbers in expanded or word form
- Add several single-digit or several-digit numbers
- Identify the associative & commutative property and zero identity of addition
- Subtract whole numbers when borrowing is necessary or not necessary
- Verify the answer to a subtraction problem
- Multiply a several-digit number by a single-digit or a several-digit number
- Perform division by a one-digit or two-or-more digit number
- Use multiplication to verify a division answer
- Perform several arithmetic operations in the proper order
- Apply arithmetic manipulation (+, -, ×, ÷) to real-life situations
- Use estimation skills to answer to real-life situations

## TRANSFERABILITY: N/A

## EVALUATIONS:

|                                   |      |
|-----------------------------------|------|
| 4 section tests (best 4 out of 5) | 40 % |
| Midterm                           | 20 % |
| Final Exam                        | 40 % |

\*\*Note: Even though 50% is a passing mark, a mark of at least 60% is recommended for success in future courses.

## GRADING CRITERIA:

| Alpha Grade | 4-point Equivalent | Percentage Guidelines |  | Alpha Grade | 4-point Equivalent | Percentage Guidelines |
|-------------|--------------------|-----------------------|--|-------------|--------------------|-----------------------|
| A+          | 4.0                | 90-100                |  | C+          | 2.3                | 67-69                 |
| A           | 4.0                | 85-89                 |  | C           | 2.0                | 63-66                 |
| A-          | 3.7                | 80-84                 |  | C-          | 1.7                | 60-62                 |
| B+          | 3.3                | 77-79                 |  | D+          | 1.3                | 55-59                 |
| B           | 3.0                | 73-76                 |  | D           | 1.0                | 50-54                 |
| B-          | 2.7                | 70-72                 |  | F           | 0.0                | 00-49                 |

## COURSE SCHEDULE/TENTATIVE TIMELINE:

See table on last page.

## STUDENT RESPONSIBILITIES:

In addition to the Student Rights and Responsibilities as set out in the Northwestern Polytechnic website, the following guidelines will maintain an effective learning environment for everyone:

- Regular attendance is expected of all students in all mathematics courses. Your success in math is directly linked to your attendance. Attendance will be taken daily.
- Students are expected to be punctual. Arrive on time for classes and remain for the duration of scheduled classes.
- Refrain from disruptive talking or socializing during class time.
- Be respectful of others regarding food or beverages in the classroom. Clean up your eating area and dispose of garbage.
- Recycle paper, bottles, and cans in the appropriate containers.
- Children are not permitted in the classrooms.
- Students are expected to notify the instructor of any extenuating circumstances.
- Students are expected to turn off cell phones during class time or in labs. No unspecified electronic devices will be allowed in exams.

## STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the Northwestern Polytechnic Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the Northwestern Polytechnic Policy on Student Misconduct: Plagiarism and Cheating at <https://www.nwpolytech.ca/about/administration/policies/index.html>

\*\*Note: all Academic and Administrative policies are available on the same page.

### *How to use the book:*

1. Read the title of each chapter, table of contents page, and title of each section. You will observe a progressive growth of operations/concepts.
2. Read and thoroughly understand the concepts and terminology of a section.
3. Understand and do each example very carefully using the terminology.  
**If difficulties arise, meet with your instructor.**
4. Match each question in an exercise with the corresponding examples before the exercise.  
*If difficulties arise, return in your module and rework the examples.*
5. Attempt the exercise questions and check the answers before moving on to the next section. **If difficulties arise, meet with your instructor.**
6. Review the terminology of the module(s) before taking any test/exam.

# Ma0060 Tentative Test Schedule for Fall 2022

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| Test #     | % towards final grade | Topics   | Recommended Test Date                         | Date written | Mark |
|------------|-----------------------|--|---|--------------|------|
| 1          | 10 %                  | Understanding Whole Numbers<br>&<br>Adding Whole Numbers                         | September 21                                  |              |      |
| 2          | 10 %                  | Subtracting Whole Numbers<br>Times tables from 0-12<br>Multiplying Whole Numbers | October 18                                    |              |      |
| 3          | 10 %                  | Times tables from 0-12<br>&<br>Dividing Whole Numbers                            | October 31                                    |              |      |
| Midterm    | 20 %                  | All of the above.  | MUST be written on<br>or before<br>November 3 |              |      |
| 4          | 10 %                  | Exponents & Order of Operations<br>&<br>Rounding and Estimating                  | November 23                                   |              |      |
| 5          | 10 %                  | Solving Applied Problems<br>Involving Whole Numbers                              | December 8                                    |              |      |
| Final Exam | 40 %                  | All of the above   | TBA<br>(Dec. 13-22)<br>3 hour exam            |              |      |

**\*\*\*All tests must be completed by December 8th.**