DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE –Winter 2023

MA0081 (A3, B3): BASIC MATHEMATICS II–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.

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

CALENDAR DESCRIPTION:
This course is a modularized program of study which covers whole numbers, decimals, fractions, integers, introduction to algebra, and introduction to equations, metric measurement, dimensional geometry, and problem solving.

PREREQUISITE(S)/COREQUISITE:
MA0060 or equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:
Package of MA0081 modules, 2021;

DELIVERY MODE(S):
MA0081 is a modularized math course.

COURSE OBJECTIVES:
Introducing students to:
- Order of operations using whole numbers and decimals
- the concept of fraction and the related terminology
- basic operations using fractions and order of operations with fractions
- the concept of integers, basic operations using integers, and order of operations with integers
- the concept of phrases for a mathematical expression
- the concept of like terms, unlike terms, and collection them in an expression
- the steps to solve an equation and use of equations in real life word problems

- metric system of mass, distance, and volume and its conversion
- the concept of perimeter, area and volume, and its use in real life situation

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

- Simplify whole number and decimal expressions using the rules for order of operations
- Verify whether or not the fractions in a pair are equivalent
- Arrange a list of fractions in order of smallest to largest or vice versa
- Simplify complex fractions with basic operations in the numerator and/or denominator
- Solve real-life problems with fractions
- Evaluate integral expressions in which order of performing operations must be determined
- Identify the like terms of an expression and simplify the expression by collecting the like terms
- Solve equations using additive inverse and/or the division or multiplication property
- Solve real life word problems involving metric units, time, or temperature
- Find the perimeter and area of general and complex shapes
- Find the volume and surface area of basic pyramids and prisms

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.

Ma0081 Tentative Test Schedule

Test #	% towards final grade	Topics	Recommended Test Date	Date written	Mark
1	10%	Whole Numbers & Decimals	January 19		
2	10%	Intro to Fractions & Operations With Fractions	February 9		
Midterm Exam	20%	All the above	February 13		
3	10%	Intro to Integers & Intro to Algebra	March 7		
4	10%	Intro to Equations & Measurements	March 24		
5	10%	Dimensional Geometry	April 10		
Final Exam	40%	All of the Above	TBA (April 14-24) 3 hour exam		

***All tests must be completed by April 10th.**

***Midterm must be completed by February 27th.**