

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – Winter 2025

MA0110 (A3): Mathematics Grade 10-C Equivalent – 5 (7.5-0-0) 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)539-2234
OFFICE:	A205A	E-MAIL:	dlachance@nwpolytech.ca
OFFICE HOURS:	TBD or by appointment		

CALENDAR DESCRIPTION:

This course covers measurement including surface area and volume, introduction to trigonometry, numbers, roots and exponents, polynomial multiplication and factoring, relations and functions, linear functions, and systems of equations.

PREREQUISITE(S):

Complete 1 of the following:

- MA0091 – Basic Mathematics III (5)
- Equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:

Package of MA0110 modules, 2022;

Non-graphing scientific calculator (TI-30XIIS recommended);

Internet access for MyClass and additional material.

DELIVERY MODE(S):

- **On-campus (attend on-campus, in-person)** – This type of course will be delivered on campus in a specific location which will be indicated on the student timetable. Students are expected to fully attend in person.
- Use of D2L is required

LEARNING OUTCOMES:

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

- Convert measurement between SI units and imperial units
- Solve problems, using SI and imperial units, that involve the surface area and volume of general and complex 3-D object
- Solve similar right triangles using proportions, trigonometric ratios, and/or Pythagorean theorem
- Calculate prime factors, greatest common factor, and /or nth root by applying in real life situations
- Simplify expressions with integral and rational exponents using the rules for order of operations
- Factor a polynomial expression using greatest common factor, product and sum, and/or difference of two squares
- Determine the domain and range of a relation, and prove if a relation is a function
- Determine the equation of a line if a graph, a point and the slope, two points, or slope and y-intercept is given
- Graph a linear functions by constructing a table of values, determining and plotting x and y-intercepts, or using slope and y-intercepts
- Solve systems of linear equations with two unknown using graphing, substitution, or elimination

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.alberta.ca>.

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. **Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

EVALUATIONS:

Homework	8%
Unit Tests	32%
Midterm	25%
Final Exam (cumulative)	35%

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit IF your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	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:

Assignment 1 (Roots): Jan. 17

Assignment 2 (Polynomials): Feb. 11

Assignment 3 (Measurements): Mar. 12

Assignment 4 (Functions): Apr. 1

Test 1 (Units 1&2): Jan. 27

Test 2 (Units 3&5): Feb. 27

Midterm: March 3

Test 3 (Unit 6&4): Mar. 20

Test 4 (Units 7&8): Apr. 9

Final Exam: TBD(Apr. 14-23)

STUDENT RESPONSIBILITIES:

In addition to the Student Rights and Responsibilities as set out in the Northwestern Polytechnic website

(<https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69>), the following guidelines will maintain an effective learning environment for everyone:

- Attendance: Regular attendance and class participation is expected of all students and is crucial to good performance in the course. Class interruption due to habitual late arrival or leaving early will not be permitted. You may be debarred from the final exam if your absences exceed 15% of class days (10 lecture classes).
- Check myClass as well as NWP email on a regular basis.
- Assignments and lab reports must be submitted on time.
- Exams must be written on the days announced in class.
 - If an emergency prevents attendance on an exam day, students must contact me as soon as possible via phone or email, and may be asked to provide documentation to justify their absence.
- No unspecified electronic devices will be permitted during exams.
- Complete daily homework. At least 1 hour of study per day outside of class time is required.
- Behaviors that interfere with learning are not acceptable.
- Take responsibility for your learning.

STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available

at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

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