NORTHWESTERN POLYTECHNIC

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – Fall 2024

MA0110 (A2): 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:	James Iverson	**PHONE:**	780-539-2850
OFFICE:	C407	**E-MAIL:**	jiverson@nwpolytech.ca
OFFICE HOURS:	Monday and Thursday 2:30-3:30PM 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.

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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.**

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EVALUATIONS:

Assignments	10%
Section Tests (Best 4 out of 5)	40%
Midterm	20%
Final	30%

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:

Math 0110 consists of 8 units divides into 5 sections		Tentative Exam dates
A.	Numbers and Roots & Exponents (Ch 1 and 2)	**September 26**
B.	Polynomials (Ch 3)	**October 11**
C.	Relations and Functions & Linear Functions (Ch 4 and 7)	**October 30**
Midterm Exam (20%)		**November 5**
E.	Measurement & Trigonometry (Ch 5 and 6)	**November 28**
F.	Systems of Equations (Ch 8)	**December 10**

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STUDENT RESPONSIBILITIES:

In addition, the following guidelines will maintain an effective learning environment for everyone. We ask the cooperation of all students in the following areas of the classroom environment:

1. Take responsibility for your learning.
2. Attendance: Regular attendance and class participation is expected of all students and is crucial to good performance in the course. You may be debarred from the final exam if your absences exceed 15% of class days (10 lecture classes).
3. Exams must be written on the days announced in class.
4. If an emergency prevents attendance on an exam day, students must contact me before the end of the exam (as soon as possible) via phone or email, students may be asked to provide documentation to justify their absence.
5. No unspecified electronic devices will be permitted during exams. This includes phones, watches etc.
6. Complete daily homework. At least 1.5 hours of study per day outside of class time is required to stay caught up.
7. Behaviors that interfere with learning are not acceptable.
8. Communicate all requests regarding appointments, etc. via email.

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.