



DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2021

MA0110 (A2) - Mathematics Grade 10-C Equivalent - 5 (0-0-7.5) HS 112.5 Hours for 15 Weeks

Grande Prairie Regional College respectfully acknowledges that we are located on Treaty 8 territory, the traditional homeland and gathering place for many diverse Indigenous peoples. We are honoured to be on the ancestral lands of the Cree, Dene/Beaver and Métis, whose histories, languages, and cultures continue to influence our vibrant community. We are grateful to have the opportunity to work, learn, and live on this land.

INSTRUCTOR: Sheryl Heikel **PHONE:** (780) 539-5029

OFFICE: C417 **E-MAIL:** sheikel@gprc.ab.ca

OFFICE HOURS: Wednesdays 2:45 - 3:45 pm Fridays noon - 12:45 pm
or by appointment

CALENDAR DESCRIPTION:

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

PREREQUISITE(S)/COREQUISITE:

MA0091 or equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:

Text Book: Package of MA0110 modules, 2017;
Scientific calculator, loose leaf paper or note book; a pencil, an eraser, a geometry set.

DELIVERY MODE:

- This is a **lecture based course** with a lot of emphasis on students' participation. First, background concepts and rules are reviewed, examples will be done in the class with students' participation. Several related problems are assigned daily to reinforce new ideas and skills. Students are expected to spend approximately one hour on homework daily.
- There will be five tests, a midterm exam, and a final exam scheduled at the end of the semester. You must revise and review the material thoroughly before taking test(s) / exam. When writing a test, be sure to show all of your work on the test paper. Marks are given for the method as well as the final answer. Even though 50% is a passing mark, a mark of **at least 60% in any module(s) test** is recommended.
- **One lowest test mark out of 5 test marks will be ignored. Best 4 test marks out of 5 test mark will be used for the final grade.**
- Upon completion of the first five units, a midterm test will be written on or before **Wednesday, November 3**. If you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all eight units, you will write a three hour final exam. Be sure to leave time to prepare for this important exam! It is worth a large percentage of your final grade.
- **Do not hesitate to ask for help. Consult your instructor immediately if you find yourself falling behind the lecture delivery.**

COURSE OBJECTIVES:

This course introduces students to:

- SI units and imperial units and their conversion
- real life problems, using SI and imperial units, that involve surface area and volume of complex figures
- primary trigonometric ratios and their use in real life situations
- general root of a number and its use in real life situation
- powers with integral and rational exponents and basic operations using the rules for order of operations
- the concept of factoring a polynomial expressions with two, three, and four terms
- the concept of relation and how to convey it, and explain if the relation is a function
- equation of a linear function and its graphing
- the concept of system of equation and how to solve it

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: N/A

EVALUATION CRITERIA:

Your final mark is determined by:

4 section tests	32 %
Midterm	30 %
Final Exam	38 %

GRADING CRITERIA:

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A ⁺	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A ⁻	3.7	80 – 84	FIRST CLASS STANDING
B ⁺	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B ⁻	2.7	70 – 72	
C ⁺	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C ⁻	1.7	60 – 62	
D ⁺	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

Test Schedule for Fall 2021 MA0110

Topics / Tests / Exams

Test #1	% towards the Final Exam	Topics	Recommended Test Date	Date Written	Mark Obtained
1	8%	Numbers and Roots & Exponents	September 24 Friday		
2	8%	Polynomials & Relations and Functions	October 8 Friday		
3	8%	Trigonometry	October 27 Wednesday		
Midterm	30%	All of the Above	November 3 Wednesday		
4	8%	Measurement	November 18 Thursday		
5	8%	Linear Functions & Systems of Equations	December 9 Thursday		
Final Exam	38%		TBA (Dec. 11 - 20)		

STUDENT RESPONSIBILITIES:

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

1. 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.
2. Students are expected to be punctual. Arrive on time for classes and remain for the duration of scheduled classes.
3. Refrain from disruptive talking or socializing during class time.
4. Be respectful of others regarding food or beverages in the classroom. Clean up your eating area and dispose of garbage.
5. Recycle paper, bottles, and cans in the appropriate containers.
6. Children are not permitted in the classrooms.
7. Students are expected to notify the instructor of any extenuating circumstances.

ELECTRONIC DEVICES:

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 College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

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

STUDENT PRINTING POLICY:

Please refer to the College website (Home > Tuition and Fees) for the printing policy which limits the free use of paper; extra charges will applied if the limit is exceeded.