



DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2021

**MA0091 (E2) - Basic Mathematics III - 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: Reddy Ganta
OFFICE: B301
OFFICE HOURS: TBA

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CALENDAR DESCRIPTION:

This course is a modularized program of study which includes a review of basic computational skills, ratio and proportion, percent; an introduction to exponents, basic operations on polynomials, equations, basic algebraic word problems; fundamental of geometry, introduction to graphing and statistics.

PREREQUISITE(S)/COREQUISITE:

MA0081 or equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:

Textbook: Package of MA0091 modules;
Scientific calculator, loose leaf paper or notebook; a pencil, an eraser, a geometry set.

DELIVERY MODE:

- This course is delivered remotely. There is no face- to- face or onsite requirement. Students must have a computer with a webcam, Printer/Scanner, and reliable internet connection. Technological support is available through helpdesk@gprc.ab.ca.

- MA0091 is a modularized math course divided into 10 separate units called modules. The instructions for each topic are given in the modules, followed by several examples and exercises. Study the instructions and work through the examples before starting each exercise. The answers for each exercise are given at the end of each module. Check your work often to make sure you understand each topic. The key to success in working with modules is to ask questions whenever you have difficulty understanding instructions, the examples, or the exercises. **Do not hesitate to ask for help.**
- All tests and exams MUST be written at the scheduled times (page 5).
- One lowest test mark out of 5 test marks will be ignored.

COURSE OBJECTIVES:

This course introduces students to:

- the review of basic operations with integers and fractions
- the concept of ratio, rate, and how it is used in real life situations
- the concept of percent and use the percent proportion to solve percent problems
- exponential expressions with basic operations using the rules for order of operations
- basic operations with monomials, binomials, and trinomials
- equations with parentheses and fractions and steps to solve an unknown
- the concept of inequality and its solution process
- rearranging formulas
- properties of parallel and transversal
- properties of a chord in a circle and tangent to a circle
- the concept of co-ordinate system, and the slope of a line using the co-ordinate system
- various graphs to display a set of data and draw an inference using graphs or central tendency

LEARNING OUTCOMES:

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

- Simplify expressions with whole numbers, decimals, integers, and fractions using the rules for order of operations
- Write a ratio to compare two quantities with same units from real life situations
- Compare unit rates using number relation symbols
- Solve real life problems using proportions
- Solve general applied percent problems such as interest, sales tax, commission, etc.

- Evaluate exponential expressions containing negative and positive exponents using the rules for order of operations
- Convert between scientific notations and standard form, and multiply and divide using scientific notation
- Identify the terminology of polynomials
- Solve more than one basic operations with polynomials using the rules for order of operations
- Solve linear equations with fractions and/or parenthesis
- Solve a formula for a specified variable and then evaluate
- Solve an inequality using addition and/or multiplication principles and graph the solution on a number line
- Solve a word problem by writing an equation
- Identify pairs of corresponding angles, interior angles, and alternate interior angles, and apply properties of transversals and parallel line to find measures of angles
- Calculate the measures of angles, chords, and/or radii using the circle properties
- Plot and construct graphs in a rectangular co-ordinate system and state the slope of a line containing points with co-ordinates
- Construct a line graph, pictograph, component graph, circle graph, histogram, and polygon using the given data
- Construct a frequency table from raw data, and display the information
- Draw an inference using the central tendency of a set of raw data

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.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

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	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

EVALUATION CRITERIA:

Your course mark is determined by:

4 section tests	40 %
Midterm	20 %
Final Exam	40 %

All tests and exams **MUST** be written at the scheduled times. A missed test (exam) will result in a score of **ZERO** on that test (exam). The final exam is scheduled by the registrars' office during GPRC Exam weeks.

MA 0091 Test Schedule for Fall 2021

Test #1	% towards the Final Exam	Topics	Recommended Test Date	Mark Obtained
1	10%	Review & Ratio and Percent	September 21 Tuesday	
2	10%	Rate and Proportion & Intro to exponents	October 7 Thursday	
3	10%	Intro to Polynomials & Statistics	October 28 Thursday	
Midterm	20 %	All the Above	November 2 Tuesday	
4	10%	Equations & Language of Algebra	November 18 Thursday	
5	10%	Fund. Of Geometry & Intro to Graphing	December 2 Thursday	
Final Exam	40%		TBA (Dec 11 - 20)	

STUDENT RESPONSIBILITIES:

In addition to the *Student Rights and Responsibilities* as set out in the college website www.gprc.ab.ca/d/STUDENTRIGHTSRESPONSIBILITIES , 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.
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.

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

How to use a module:

1. Read and thoroughly understand the concepts and terminology of a section.
2. Understand and do each example very carefully using the terminology.
If difficulties arise, Do not hesitate to ask for help.
3. Match each question in an exercise with the corresponding examples before the exercise. *If difficulties arise, return in your module and rework the examples.*
4. Attempt the exercise questions and check the answers before moving on to the next section. ***If difficulties arise, Do not hesitate to ask for help.***