



## **DEPARTMENT OF ACADEMIC UPGRADING**

### **COURSE OUTLINE – WINTER 2016**

#### **MA0081 (E3): BASIC MATHEMATICS II – 5 (5-0-0) 75 Hours**

**INSTRUCTOR:** Reddy Ganta      **PHONE:** (780) 539-2810 or 2850

**OFFICE:** J220      **E-MAIL:** rganta@gprc.ab.ca

**OFFICE HOURS:** TBA

#### **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:**

Text Book: Package of MA0081 modules, 2011;  
Scientific calculator (for the last module only)  
Loose leaf paper or note book; a pencil, an eraser, a ruler.

#### **DELIVERY MODE:**

- MA0081 is a modularized math course divided into 9 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.**

- **Module tests must be written as listed on page 4.** Follow these dates as closely as you can. You must revise and review the material thoroughly before taking Module test(s) / exam. You are encouraged to write a test early if you are prepared. 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 section(s) test is recommended.
- **Only one test re-write of your choice is allowed. It will replace the corresponding mark, and must be taken during the last week of classes.**
- Upon completion of the first four modules, a midterm test will be written on or before **Thursday, February 25**. If you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all nine sections, 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.
- **Consult your instructor immediately if you find yourself falling behind schedule.** Your instructor may ask you to spend more time in the Math Lab and get help often. **All tests / rewrite must be written by Thursday, April 7.**

## **COURSE OBJECTIVES:**

This course introduces 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

## **COURSE OUTCOME:**

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**

## **GRADING CRITERIA:**

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

## MA0081 Winter 2016

### Topics / Tests / Exams

| Test #1        | % towards the Final Exam | Topics                                         | Recommended Test Date                      | Date Written | Mark Obtained |
|----------------|--------------------------|------------------------------------------------|--------------------------------------------|--------------|---------------|
| 1              | 10%                      | Whole Numbers & Decimals                       | January 26<br>Tuesday                      |              |               |
| 2              | 10%                      | Intro to Fractions & Operations With Fractions | February 23<br>Tuesday                     |              |               |
| <b>Midterm</b> | <b>20%</b>               | <b>All the above</b>                           | <b>February 25<br/>Thursday</b>            |              |               |
| 3              | 10%                      | Intro to Integers & Intro to Algebra           | March 10<br>Thursday                       |              |               |
| 4              | 10%                      | Intro to Equations & Measurements              | March 29<br>Tuesday                        |              |               |
| 5              | 5%                       | Dimensional Geometry                           | April 7<br>Thursday                        |              |               |
| <b>Final</b>   | <b>35%</b>               |                                                | <b>To be announced<br/>(April 15- 26))</b> |              |               |

### EVALUATION CRITERIA:

Your final mark is determined by:

|                |      |
|----------------|------|
| 5 Module tests | 45 % |
| Midterm        | 20 % |
| Final Exam     | 35 % |

## MA0081 WINTER 2016 Homework Schedule

|                                                                                                                                                                                                                            |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>1. Whole Numbers</b><br>1-5                      6-8                      9-10, Review<br><b>Jan. 7                      12                      14</b>                                                                 |  |  |  |
| <b>2. Decimals</b><br>1-5                      6, Review<br><b>Jan. 19                      21</b>                                                                                                                         |  |  |  |
| <b>Test 1 (Mod. 1 &amp; Mod. 2)</b>                                                                                                                                                                                        |  |  |  |
| <b>Jan. 26 (Tuesday)</b>                                                                                                                                                                                                   |  |  |  |
| <b>3. Introduction to Fractions</b><br>1-2                      3-6                      7-9                      10 & Review<br><b>Jan. 26                      28                      Feb. 2                      4</b> |  |  |  |
| <b>4. Operations with Fractions</b><br>1-2                      3-7                      8 & 9, Review<br><b>Feb. 4                      9                      11</b>                                                     |  |  |  |
| <b>Feb. 23 (Tuesday)</b>                                                                                                                                                                                                   |  |  |  |
| <b>Midterm Exam on Thursday, February 25</b>                                                                                                                                                                               |  |  |  |
| <b>5. Introduction to Integers</b><br>1-4                      5-8                      Review<br><b>Feb. 25                      Mar. 1                      3</b>                                                        |  |  |  |
| <b>6. Introduction to Algebra</b><br>1-3                      4 & Review<br><b>Mar. 3                      8</b>                                                                                                           |  |  |  |
| <b>Test 3 (Mod. 5 &amp; Mod. 6)</b>                                                                                                                                                                                        |  |  |  |
| <b>Mar. 10 (Thursday)</b>                                                                                                                                                                                                  |  |  |  |
| <b>7. Introduction to Equations</b><br>1-3                      4-5                      Review<br><b>Mar. 10                      15                      17</b>                                                          |  |  |  |
| <b>8. Measurement</b><br>1-2                      3-7                      8 & Review<br><b>Mar. 17                      22                      24</b>                                                                    |  |  |  |
| <b>Test 4 (Mod. 7 &amp; Mod. 8)</b>                                                                                                                                                                                        |  |  |  |
| <b>Mar. 29 (Tuesday)</b>                                                                                                                                                                                                   |  |  |  |
| <b>9. Dimensional Geometry</b><br>1-3                      4-6                      Review<br><b>Mar. 29                      31                      Apr. 5</b>                                                           |  |  |  |
| <b>Test 5 (Mod. 9)</b>                                                                                                                                                                                                     |  |  |  |
| <b>Apr. 7 (Thursday)</b>                                                                                                                                                                                                   |  |  |  |
| <b>Final Review (April 7-12)</b>                                                                                                                                                                                           |  |  |  |
| <b>Final exam to be announced</b>                                                                                                                                                                                          |  |  |  |
| <b>(April. 15 - 26)</b>                                                                                                                                                                                                    |  |  |  |

## **STUDENT RESPONSIBILITIES:**

In addition to the ***Student Rights and Responsibilities*** as set out in the college website, 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/\\*\\*](http://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 be applied if the limit is exceeded.