

# Grande Prairie Regional College Department: Academic Upgrading

### COURSE OUTLINE – WINTER (Evening) 2008 INTRODUCTION TO MATH 0120

Instructor: Katrina Kloster Instructor's office: C220 Office Hours: Daily 5:30-6:00 PM in Math Lab (A210) or by appointment

## **Calendar Description:**

MA 0120 Mathematics Grade 11 Equivalent (Pure) 5 (5-0-0) Time: 75 Hours Description: This course explores equations, inequalities, systems of equations, exponents and radicals, rational expressions and equations, polynomial functions and equations, other functions, geometry and mathematical reasoning, and mathematical applications.

Prerequisite: MA0110 or equivalent math placement test score.

#### **Resource requirements:**

Package of MA0120 modules, 2004 Scientific calculator, graph paper

#### Attendance:

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 during class. Any student **missing more than 6 classes may be debarred from writing the final exam**.

#### **Course Delivery and Evaluation:**

This course is divided into 9 separate units called modules. The instructions for each topic are given in the modules, followed by several examples and exercises. **The key to success** is to **ask questions** whenever you have difficulty understanding the instructions, the examples, or the exercises. **Do not hesitate to ask for help.** After each module you must write a test. When writing a test, be sure to show all of your work on the test paper. Marks are given for method as well as for the final answer. A passing mark of 50% is required. If you are unable to attain this mark, you must review the material and rewrite the test. The first and second test marks will be averaged.

A 50-minute midterm, which will cover the first five modules, will be written on **Thursday, February 28th**. If you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all the course modules, you will write a three hour final exam.

The recommended test date for each module and the midterm is on the next page. Follow these dates as closely as you can. You are encouraged to write a test early if you are prepared. **Consult your instructor immediately if you find yourself falling behind schedule.** Your instructor may need to reassess you math skills to ensure that you are placed in a course where you can be successful. **All tests must be written by Thursday April 10, 2008.** 

**Bonus**: If you write your module test on or before the given date, you will be awarded an additional 2% on your score.

Your final mark is determined by:

| 9 module tests | 45% |
|----------------|-----|
| Midterm        | 20% |
| Final Exam     | 35% |

Final grades are given as follows:

| Alpha | 4-Point Equivalent | Percentage |                      |
|-------|--------------------|------------|----------------------|
| Grade |                    | Guidelines | Designation          |
|       |                    |            | Excellent            |
| A+    | 4.0                | 90 - 100   | 4                    |
| А     | 4.0                | 85 - 89    |                      |
|       |                    |            | First Class Standing |
| A-    | 3.7                | 80 - 84    | 4                    |
| B+    | 3.3                | 76 - 79    |                      |
|       |                    |            | Good                 |
| В     | 3.0                | 73 - 75    | _                    |
| B-    | 2.7                | 70 - 72    |                      |
|       |                    |            | Satisfactory         |
| C+    | 2.3                | 67 - 69    |                      |
| С     | 2.0                | 64 - 66    |                      |
| C-    | 1.7                | 60 - 63    |                      |
|       |                    |            | Minimal Pass         |
| D+    | 1.3                | 55 - 59    | _                    |
| D     | 1.0                | 50 - 54    |                      |
| F     | 0.0                | 0 - 49     | Fail                 |

# MA0120 – WINTER (evening) 2008

| Module | TOPIC/DESCRIPTION   | Test<br>Date                      | Your<br>mark |
|--------|---|-----------------------------------|--------------|
| 1      | Equations and Inequalities<br>-solving linear equations and inequalities<br>-graphing linear equations and inequalities<br>-absolute value equations and inequalities | 5 days<br>January 10<br>Thursday  |              |
| 2      | Systems of Equations<br>- solving systems of equations by graphing, substitution,<br>and elimination; applications  | 5 days<br>January 17<br>Thursday  |              |
| 3      | Exponents and Radicals<br>- rational exponents; four basic operations on exponents<br>and radicals; solving radical equations   | 8 days<br>January 29<br>Tuesday   |              |
| 4      | Rational Expressions<br>-nonpermissible values; simplifying; four basic<br>operations; equations  | 7 days<br>February 7<br>Thursday  |              |
| 5      | Geometry<br>-basic theorems<br>-circle terminology; properties of angles and chords in a<br>circle; tangents to a circle  | 7 days<br>Feb. 26<br>Tuesday      |              |
|        | MIDTERM EXAM MUST BE WRITTEN ON/BY  | Feb. 28 <sup>th</sup><br>Thursday |              |
| 6      | Relations and Functions<br>- domain and range; functional notation; graphing;<br>inverse functions; transformations   | 8 days<br>March 11<br>Tuesday     |              |
| 7      | Quadratic Functions<br>- graphing; completing the square; characteristics;<br>applications  | 7 days<br>March 20<br>Thursday    |              |
| 8      | Quadratic Equations<br>- solving by factoring and quadratic formula; nature of<br>roots; applications   | 8 days<br>April 1st<br>Tuesday    |              |
| 9      | Polynomial Functions & Equations<br>- synthetic division<br>- remainder & factor theorems; equations and graphs   | 7 days<br>April 10<br>Thursday    |              |
|        | FINAL EXAM - 3 HOURS  | TBA<br>Apr. 14-24                 |              |