## M11 <br> Grande Prairie Regional College Department: Academic Upgrading

## COURSE OUTLINE - WINTER 2008 <br> INTRODUCTION TO MATH 0120

Instructor:

Instructor's office: $\qquad$

Office Hours:

## 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 $\mathbf{1 0}$ 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. As well, the instructor will teach a mini lesson daily to clarify the more difficult concepts and also to keep you on schedule.
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. Repeat
tests must be written outside of class time.
A 50-minute midterm, which will cover the first five modules, will be written on Tuesday, February 26. Upon completion of all the course modules, you will write a three hour final exam.

The test date for each module and the midterm is on the next page. Any student not attending class on a test date will receive a grade of zero for that test unless a phone call is made prior to the time of the test and an explanation of the absence satisfactory to the instructor is provided. As well, there will be a deduction of $10 \%$ for any late test.

Consult your instructor immediately if you find yourself unable to keep up to the schedule. Your instructor may need to reassess your math skills to ensure that you are placed in a course where you can be successful. Extra help is available outside of class time.

Your final mark is determined by:

| 9 module tests | $45 \%$ |
| :--- | :--- |
| Midterm | $20 \%$ |
| Find | $35 \%$ |

Final grades are given as follows:

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


| Module | TOPIC/DESCRIPTION | Test <br> Date | Your mark |
| :---: | :---: | :---: | :---: |
| 1 | Equations and Inequalities <br> -solving linear equations and inequalities <br> -graphing linear equations and inequalities <br> -absolute value equations and inequalities | 7 days <br> Jan. 11 <br> Friday |  |
| 2 | Systems of Equations - solving systems of equations by graphing, substitution, and elimination; applications | 5 days Jan. 18 Friday |  |
| 3 | Exponents and Radicals <br> - rational exponents; four basic operations on exponents and radicals; solving radical equations | 7 days <br> Jan. 29 <br> Tuesday |  |
| 4 | Rational Expressions -nonpermissible values; simplifying; four basic operations; equations | 7 days <br> Feb. 7 <br> Thursday |  |
| 5 | Geometry <br> -basic theorems -circle terminology; properties of angles and chords in a circle; tangents to a circle | 6 days <br> Feb. 15 <br> Friday |  |
|  | MIDTERM EXAM | Feb. 26 <br> Tuesday |  |
| 6 | Relations and Functions - domain and range; functional notation; graphing; inverse functions; transformations | 8 days <br> Mar. 7 <br> Friday |  |
| 7 | Quadratic Functions <br> - graphing; completing the square; characteristics; applications | 7 days <br> Mar. 18 <br> Tuesday |  |
| 8 | Quadratic Equations <br> - solving by factoring and quadratic formula; nature of roots; applications |  |  |
| 9 | Polynomial Functions \& Equations <br> - synthetic division <br> - remainder \& factor theorems; equations and graphs | 9 days <br> Apr. 10 <br> Thursday |  |
|  | FINAL EXAM - 3 HOURS | TBA |  |

