Grande Prairie Regional College Department: Academic Upgrading

## COURSE OUTLINE - FALL (Evening) 2009

## INTRODUCTION TO MATH 0120

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Office Hours: Tues/Thurs 5:30- 6:00 pm in Math Lab, 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, 2007
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 5 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. Study the instructions and work through the examples before starting each exercise. The answers for each exercise are given at the end of the module. Check your work often to make sure you understand each new topic.

The key to success in working with modules 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 final answer. A passing mark of $60 \%$ is required on the test before continuing on to the next module. If you are unable to attain this mark, you must review the material and rewrite the test. The first and second test mark will be averaged.

A 50-minute midterm, which will cover the first five modules, must be written by Thursday October 22. 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. Be sure to leave time to prepare for these important exams! They are worth a large percentage of your final grade.

The recommended test date for each module and the midterm is on the next page. The following page is a calendar of recommended dates for progressing through the course. 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 your math skills to ensure that you are placed in a course where you can be successful. All tests must be written by December 08, 2009.

## Bonus

When you write your module tests on or before the given date, you will be awarded an additional $2 \%$ on your score for each test.

Your final mark is determined by:

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

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 | $0-49$ | Fail |

## MA0120 - Fall (Evening) 2009

| Module | TOPIC/DESCRIPTION | Test 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 | 3 classes <br> Sept. 10 |  |
| 2 | Systems of Equations <br> - solving systems of equations by graphing, substitution, an elimination; applications | 2 classes <br> Sept. 17 |  |
| 3 | Exponents and Radicals <br> - rational exponents; four basic operations on exponents and radicals; solving radical equations | 3 classes <br> Sept. 29 |  |
| 4 | Rational Expressions -nonpermissible values; simplifying; four basic operations; equations | 3 classes Oct. 8 |  |
| 5 | Geometry <br> -basic theorems -circle terminology; properties of angles and chords in a circle; tangents to a circle | 2 classes <br> Oct. 15 |  |
|  | MIDTERM EXAM | Oct. 22 |  |
| 6 | Relations and Functions - domain and range; functional notation; graphing; inverse functions; transformations | 3 classes <br> Nov. 3 |  |
| 7 | Quadratic Functions <br> - graphing; completing the square; characteristics; applications | 2 classes <br> Nov. 10 |  |
| 8 | Quadratic Equations <br> - solving by factoring and quadratic formula; nature of roots applications | 3 classes <br> Nov. 19 |  |
| 9 | Polynomial Functions \& Equations <br> - synthetic division <br> - remainder \& factor theorems; equations and graphs | 4 classes <br> Dec. 3 |  |
|  | FINAL EXAM - 3 HOURS | TBA (Dec. 9-19) |  |

## AUD STUDENT CLASSROOM DEPORTMENT GUIDELINES

The Academic Upgrading Department is an adult education environment. Students are expected to show respect for each other as well as faculty and staff. They are expected to participate fully in achieving their educational goals in a timely manner.

Certain activities are disruptive and not conducive to an atmosphere of learning. In addition to the Student Rights and Responsibilities as set out in the College calendar, the following guidelines will maintain an effective learning environment for everyone. We ask the cooperation of all students in the following areas of classroom deportment.

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

## Electronic Devices

No unspecified electronic devices will be allowed in exams.

## Success Standard

Although $50 \%$ is considered a pass in most courses, if you wish to be successful at the next level, we strongly recommend that you have a mark of $60 \%$ or better in your pre-requisite courses.

## Examinations:

The final exam will be 3 hours long and is scheduled by the registrars' office during December 9-19.

## Statement on Plagiarism:

The instructor reserves the right to use electronic plagiarism detection services.

