DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2010

INTRODUCTION TO MATH 0120

INSTRUCTOR: Aidarus Farah **PHONE:** (780) 539-2810

OFFICE: Math Lab A210 **E-MAIL:** afarah@gprc.ab.ca

OFFICE HOURS: Tuesday & Thursday 5:30-6:00 pm in the Math Lab A210

PREREQUISITE(S)/COREQUISITE:
MA0110 or equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:
Package of MA0120 modules, 2007
Scientific calculator; graphing paper

CALENDAR 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.

CREDIT/CONTACT HOURS:
MA 0120 Mathematics Grade 11 Equivalent (Pure) 5 (5-0-0)
Time: 75 Hours

DELIVERY MODE:

MA0120 is a modularized math course. It 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 50% 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 marks will be averaged.
A 50-minute midterm, which will cover the first five modules, must be written by **Thursday, October 21.** 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 back of 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 your math skills to ensure that you are placed in a course where you can be successful. **All tests must be written by Tuesday, December 7.**

TRANSFERABILITY:

This course is listed in the Alberta Transfer Guide. It is accepted at colleges and universities in Alberta as equivalent to Math 20 Pure.

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.

OBJECTIVES:

Students will develop problem solving skills and gain an appreciation of the mathematics of modern society.

SUCCESS STANDARD

Although 50% is considered a pass for this course, if you wish to be successful at the next level, we strongly recommend that you achieve a mark of 60% or better.

GRADING CRITERIA:

Your final mark is determined by:

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

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

Objectives / Tests / Examinations

Module	Objectives / Topics	Test Date	Your mark
1	Equations and Inequalities -solving linear equations and inequalities -graphing linear equations and inequalities -absolute value equations and inequalities	3 days Sept. 9 Thursday	
2	Systems of Equations - solving systems of equations by graphing, substitution, and elimination; applications	2 days Sept. 16 Thursday	
3	Exponents and Radicals - rational exponents; four basic operations on exponents and radicals; solving radical equations	3 days Sept. 28 Tuesday	
4	Rational Expressions -non-permissible values; simplifying; four basic operations; equations	3 days Oct. 7 Thursday	
5	Geometry -basic theorems -circle terminology; properties of angles and chords in a circle; tangents to a circle	2 days Oct. 14 Thursday	
	MIDTERM EXAM	**Thursday Oct. 21**	
6	Relations and Functions - domain and range; functional notation; graphing; inverse functions; transformations	3 days Nov. 2 Tuesday	
7	Quadratic Functions - graphing; completing the square; characteristics; applications	2 days Nov. 7 Tuesday	
8	Quadratic Equations - solving by factoring and quadratic formula; nature of roots; applications	3 days Nov. 23 Tuesday	
9	Polynomial Functions & Equations - synthetic division - remainder & factor theorems; equations and graphs	3 days Dec. 2 Thursday	
	Final Exam 3-hours (date to be announced)	**Dec.09-18**	

Homework Schedule MA0120

	Tuesday	Thursday
September		**2** Module 1 Ex. 1-3
	7 Modules 1 Ex. 4-6	**9** Module 1 Review **Test 1** Module 2 Ex. 1-3
	14 Module 2 Ex. 4-5	**16** Module 2 Review **Test 2**
	21 Module 3 Ex. 1-5	**23** Module 3 Ex. 6-10
	28 Module 3 Review **Test 3**	**30** Module 4 Ex. 1-4
October	**5** Module 4 Ex. 4-6	**7** Module 4 Review **Test 4** Module 5 Ex. 1-2
	12 Module 5 Ex. 3-6	**14** Module 5 Review **Test 5**
	19 **Midterm Review**	**21** **Midterm**
	26 Module 6 Ex. 1-3	**28** Module 6 Ex. 4-Review
November	**2** **Test 6** Module 7 Ex. 1-4	**4** Module 7 Ex. 5-7
	9 Module 7 Review **Test 7** Module 8 Ex. 1-2	**11** Remembrance day **No classes**
	16 Module 8 Ex. 3-5	**18** Module 8 Ex. 6-7, Review
	23 **Test 8** Module 9 Ex. 1-5	**25** Module 9 Ex. 6-7
	30 Module 9 Ex. 8-10	
December		**2** Module 9 Review **Test 9**
	7 **Final Review**	

STUDENT RESPONSIBILITIES:

In addition to the ***Student Rights and Responsibilities*** as set out in the **College Calendar** (pages 47-50), 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.

ELECTONIC 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:
Please refer to pages 48-49 of the College Calendar regarding plagiarism, cheating, and the resultant penalties. These are serious issues and will be dealt with severely.