



DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2012

INTRODUCTION TO MATH 0120

INSTRUCTOR: Alan Iwaskow **PHONE:** (780) 539-2713
OFFICE: C207 **E-MAIL:** aiwaskow@gprc.ab.ca

OFFICE HOURS: 5:45-6:00pm Tuesday and Thursday in the Math Lab A210

PREREQUISITE(S)/COREQUISITE:

MA0110, MA 10 Pure, or equivalent math placement test score

REQUIRED TEXT/RESOURCE MATERIALS:

Package of MA0120 modules, 2007

Scientific calculator, graph 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 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, October 23**. 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 back of the next page. **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.

All module tests and rewrites must be written by **Tuesday December 11**.

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.

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

MA0120 Fall 2012
Topics / Tests / Exams

Module	TOPIC/DESCRIPTION	Test Date	Your Mark
1	Equations and Inequalities -solving linear equations and inequalities -graphing linear equations and inequalities -absolute value equations and inequalities	September 13 Thursday	
2	Systems of Equations - solving systems of equations by graphing, substitution, and elimination; applications	September 20 Thursday	
3	Exponents and Radicals - rational exponents; four basic operations on exponents and radicals; solving radical equations	October 2 Tuesday	
4	Rational Expressions -nonpermissible values; simplifying; four basic operations; equations	October 11 Thursday	
5	Geometry -basic theorems -circle terminology; properties of angles and chords in a circle; tangents to a circle	October 18 Thursday	
	MIDTERM EXAM	Tuesday October 23	
6	Relations and Functions - domain and range; functional notation; graphing; inverse functions; transformations	November 1 Thursday	
7	Quadratic Functions - graphing; completing the square; characteristics; applications	November 15 Thursday	
8	Quadratic Equations - solving by factoring and quadratic formula; nature of roots; applications	November 27 Thursday	
9	Polynomial Functions & Equations - synthetic division - remainder & factor theorems; equations and graphs	December 6 Thursday	
	Final Exam 3-hours (date to be announced)	December 13-22	

Fall 2012 Night Class Schedule FINAL EXAMS TO BE ANNOUNCED (December 13-22)

	MA0081	MA0091	MA0110	MA0120
Sep 6 Th	M1 Ex 1-6	M1 Ex 1-6	M1 Ex 1-3	M1 Ex 1-3
Sep 11 Tu	M1 Ex 7-10	M1 Ex 7-12	M1 Ex 4-6	M1 Ex 4-6
Sep 13 Th	M1 Rev, Test 1 M2 Ex 1	M1 Ex 13-14, Rev, T1	Rev, Test 1	M1 Rev, Test 1 M2 Ex 1-3
Sep 18 Tu	M2 Ex 2-4	M2 Ex 1-4	M2 Ex 1-2	M2 Ex 4-5
Sep 20 Th	M2 Ex 5-6, Rev	M2 Ex 5-8	M2 Ex 3-4	M2 Rev, Test 2
Sep 25 Tu	M2 Test 2 M3 Ex 1-4	M2 Ex 9, Rev, T2	M2 Ex 5-6	M3 Ex 1-5
Sep 27 Th	M3 Ex 5-9	M3 Ex 1-4	M2 Ex 7, Rev, Test 2	M3 Ex 6-9
Oct 2 Tu	M3 Ex 10, Rev	M3 Ex 5-8	M3 Ex 1-3	M3 Ex 10, Rev Test 3
Oct 4 Th	Test 3 M4 Ex 1-2	M3 Ex 9, Rev, T3 M4 Ex 1	M3 Ex 4-5	M4 Ex 1-4
Oct 9 Tu	M4 Ex 3-5	M4 Ex 2-5	M3 Rev, Test 3	M4 Ex 5-6
Oct 11 Th	M4 Ex 6-9	M4 Rev, T4 M5 Ex 1-2	M4 Ex 1-3	M4 Rev, Test 4 M5 Ex 1-2
Oct 16 Tu	M4 Rev, Test 4	M5 Ex 3-7	M4 Ex 4, Rev	M5 Ex 3-6
Oct 18 Th	MT Review MIDTERM	M5 Ex 8, Rev, T5 Midterm Review	Test 4, Midterm Review	M5 Rev, Test 5
Oct 23 Tu	M5 Ex 1-2	Review, MIDTERM M6 Ex 1	MT Rev, MIDTERM	Midterm Review MIDTERM
Oct 25 Th	M5 Ex 3-5	M6 Ex 2-5	M5 Ex 1-3	M6 Ex 1-4
Oct 30 Tu	M5 Ex 6-8	M6 Ex 6-10	M5 Ex 4-6	M6 Ex 3-5
Nov 1 Th	M5 Rev, T5 M6 Ex 1	M6 Ex 11, Rev, T6 M7 Ex 1-2	M5 Ex 7-8, Rev, Test 5	Rev, Test 6 M7 Ex 1
Nov 6 Tu	M6 2-4	M7 Ex 3-7	M6 Ex 1-2	M7 Ex 2-4
Nov 8 Th	M6 Rev, T6 M7 Ex 1	M7 Ex 8, Rev, T7	M6 Ex 3-4	M7 Ex 5-6, Rev
Nov 13 Tu	Fall Break	Fall Break	Fall Break	Fall Break
Nov 15 Th	M7 Ex 2-5	M8 Ex 1-3	M6 Rev, Test 6 M7 Ex 1-2	Test 7 M8 Ex 1-2
Nov 20 Tu	M7 Rev, T7 M8 Ex 1-2	M8 Ex 4-5, Rev	M7 Ex 3-4	M8 Ex 3-5
Nov 22 Th	M8 Ex 3-5	T8 M9 Ex 1	M7 Ex 5-6	M8 Ex 6-7
Nov 27 Tu	M8 Ex 6-8, Rev	M9 Ex 2-5	M 7 Rev, Test 7	M8 Rev, Test 8 M9 Ex 1
Nov 29 Th	Test 8 M9 Ex 1-3	M9 Rev, T9 M10 Ex 1-2	M8 Ex 1-2	M9 Ex 2-5
Dec 4 Tu	M9 Ex 4-6	M10 Ex 3-7	M8 Ex 3-5	M9 Ex 6-9
Dec 6 Th	M9 Rev, Test 9	M10 Ex 8-9, Rev, T10	Test 8	M9 Ex 10, Rev, Test 9
Dec 11 Tu	Final Review	Final Review	Final Review	Final Review
Dec 13-22	Final Exam TBA	Final Exam TBA	Final Exam TBA	Final Exam TBA

STUDENT RESPONSIBILITIES:

In addition to the *Student Rights and Responsibilities* as set out on 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, including graphing calculators, will be allowed in exams.

STATEMENT ON PLAGIARISM:

Please refer to the College website for policies regarding plagiarism and cheating as well as the resultant penalties. These are serious issues and will be dealt with severely.