

#### DEPARTMENT OF ACADEMIC UPGRADING

# COURSE OUTLINE – WINTER 2014 INTRODUCTION TO MATH 0060

**INSTRUCTOR:** Joelle Reynolds **PHONE:** (780) 539-2810 or 2204

**OFFICE:** Math Lab A210 **E-MAIL:** <u>jreynolds@gprc.ab.ca</u>

**OFFICE HOURS:** Daily, 8:30-9:00 am in the Math Lab

## PREREQUISITE(S)/COREQUISITE:

Appropriate math placement test score and EN 0080 placement

## **REQUIRED TEXT/RESOURCE MATERIALS:**

Text Book: STEPPING IT UP Preparing for College Math Basic Mathematics I MA0060:

Loose leaf paper or note book; a pencil, an eraser, a ruler.

#### **CALENDAR DESCRIPTION:**

This course is a modularized program of study which covers a review of reading, writing, and rounding of whole numbers as well as addition, subtraction, multiplication, and division of whole numbers. Problem solving is emphasized throughout. Squares, square roots, and the order of operations are introduced.

# **CREDIT/CONTACT HOURS:**

MA 0060 Basic Mathematics I 5 (5-0-0), Time: 75 Hours

#### **DELIVERY MODE:**

- MA0060 is a modularized math course. The topic, Whole Numbers, is divided in the text book into 8 separate parts called sections. Each new section is emphasized with a blue strip. At the end of each section, there is an exercise or set of practice problems. The answers to the practice problems are at the end of the book. Each section is further divided into sub-sections which are numbered in green circles. The name of the each sub-section is written in black.
- The instructions for each sub-section are clearly presented followed by several examples along with coloured-notes for emphasis. Study the instructions and work through the examples before starting the assigned questions from the exercise. Check your work often to make sure you understand each new topic. The key to success in working with these sections is to ask questions whenever you have difficulty understanding the instructions, the examples, or the exercise questions. Do not hesitate to ask for help.
- You must submit an assignment for marks for certain sections and write a
  test after each section. Failing to hand in the assignment on the required
  date will result in a mark reduction for that particular assignment. Feedback
  on the assignment will be given before you take the test, provided the
  assignment is submitted on the required date. When doing your assignment
  or writing a test, be sure to show all of your work on the test paper. Marks
  are given for the method as well as the final answer.
- A passing mark of 70% is required on the test before continuing on to the next section. 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. Upon completion of the first five sections, a midterm test will be written on or before Wednesday, March 12. If you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all eight sections, you will write a three hour final exam. Be sure to leave time to prepare for this important exam! It is worth a large percentage of your final grade.

The recommended test date for each section is on the course outline.
 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 ask you to
 spend more time in the Math Lab and get help often. All tests/assignments
 must be written by Monday, April 14.

#### **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:**

#### **SECTION 1:**

- 1. Write numbers in expanded form.
- 2. Write whole numbers in standard notation.
- 3. Write word names for numbers and write numbers for word forms.
- 4. Read numbers in tables.

#### **SECTION 2:**

- 1. Master basic addition facts.
- 2. Add several single-digit numbers.
- 3. Add several-digit numbers when carrying is not needed.
- 4. Add several-digit numbers when carrying is needed.
- 5. Review the associative & commutative property and zero identity of addition.
- 6. Apply addition to real-life situations.

#### **SECTION 3:**

- 1. Master basic subtraction facts.
- 2. Subtract whole numbers when borrowing is not necessary.
- 3. Subtract whole numbers when borrowing is necessary.
- 4. Check the answer to a subtraction problem.
- 5. Apply subtraction to real-life situations.

#### **SECTION 4:**

- 1. Master basic multiplication facts.
- 2. Multiply a several-digit number by a single-digit number.
- 3. Multiply a whole number by a power of 10.
- 4. Multiply a several-digit number by a several-digit number.
- 5. Use the properties of multiplication to perform calculations.
- 6. Apply multiplication to real-life situations.

#### **SECTION 5:**

- 1. Master basic division facts.
- 2. Perform division by a one-digit number.
- 3. Perform division by a two or three-digit number.
- 4. Apply division to real-life situations.

#### **SECTION 6:**

- 1. Evaluate expressions with whole-number exponents.
- 2. Perform several arithmetic operations in the proper order.

#### **SECTION 7:**

- 1. Round whole numbers.
- 2. Estimate the answer to a problem involving whole numbers.

#### **SECTION 8:**

- 1. Use the Mathematics Blueprint to solve problems involving one operation.
- 2. Use the Mathematics Blueprint to solve problems involving more than one operation.

TRANSFERABIKLITY?

# **GRADING CRITERIA:**

Your final mark is determined by:

Introductory quiz/6 section assignments	13%
8 section tests	40 %
Midterm	15 %
Final Exam	32 %

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

#### STUDENT RESPONSIBILITIES:

In addition to the **Student Rights and Responsibilities** as set out in 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 will be allowed in exams.

#### STATEMENT OF 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.

#### STUDENT PRINTING POLICY:

Please refer to the College website (Home > Tuition and Fees) for the printing policy which limits the free use of paper; extra charges will applied if the limit is exceeded.

# Winter 2014 MA0060 Topics/Tests (5 days/wk)

Topics	Recommended Time & Test Date	Date written	Mark
Understanding Whole Numbers	6 days		
	January 16		
	Friday		
Adding Whole Numbers	7 days		
	January 27		
	Monday		
Subtracting Whole Numbers	7 days		
-	February 5		
	Wednesday		
Multiplying Whole Numbers	9 days		
	February 25		
	Tuesday		
Dividing Whole Numbers	8 days		
	March 7		
	Friday		
Midterm (Sections 1 – 5)	March 12		
	Wednesday		
Exponents and Order of Operations	7 days		
	March 21		
	Friday		
Rounding and Estimating	6 days		
Nounding and Estimating	_		
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Cabina Applied Buchland L	•		
Whole Numbers	=		
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Final Exam (Sections 1 – 8)			
	(April 16 - 28)		
	Understanding Whole Numbers  Adding Whole Numbers  Subtracting Whole Numbers  Multiplying Whole Numbers  Dividing Whole Numbers	Understanding Whole Numbers  6 days January 16 Friday  Adding Whole Numbers  7 days January 27 Monday  Subtracting Whole Numbers  7 days February 5 Wednesday  Multiplying Whole Numbers  9 days February 25 Tuesday  Dividing Whole Numbers  8 days March 7 Friday  Midterm (Sections 1 – 5)  March 12 Wednesday  Exponents and Order of Operations  7 days March 21 Friday  Rounding and Estimating  6 days April 4 Monday  Solving Applied Problems Involving Whole Numbers  9 days April 11 Friday	Time & Test Date written  Understanding Whole Numbers 6 days January 16 Friday  Adding Whole Numbers 7 days January 27 Monday  Subtracting Whole Numbers 7 days February 5 Wednesday  Multiplying Whole Numbers 9 days February 25 Tuesday  Dividing Whole Numbers 8 days March 7 Friday  Midterm (Sections 1 – 5) March 12 Wednesday  Exponents and Order of Operations 7 days March 21 Friday  Rounding and Estimating 6 days April 4 Monday  Solving Applied Problems Involving Whole Numbers 9 days April 11 Friday  Final Exam (Sections 1 – 8) To be announced

# Winter 2014 MA0060 Homework Schedule 4 – Days Per Week

# Get yourself familiarized with the book and the Course Outline

Quiz	Jan. 8
Quiz is due on Jan. 9	
Note: Under each section, you must read and understand each exproblem and all the problems in the exercise at the end of each sebefore you do the next question.	•
Section 1: Understanding Whole Numbers	
Sub-sections 1 & 2: Practice Problems 1, 2, & 3, and #1 - 20 Sub-section 3: Practice Problems 4, 5, 6 & 7, and #21 - 40 Sub-section 4: Practice Problem 8 and #41 – 58; Quiz 1 #1-4	Jan. 9 Jan. 10 Jan. 13 Jan. 14 Jan. 15 Jan. 16
Section 2: Adding Whole Numbers	
Sub-sections 1 & 2: Practice Problems 1-3 and #1 - 10 Sub-sections 3 & 4: Practice Problems 4-6 and #11 - 20 Sub-section 5: Practice Problem 7 and #21 - 36 Sub-section 6: Practice Problems 8 & 9 and #37 - 52 Quick Quiz 2: 1 – 4 & Assignment to be handed in for marks Review the whole unit Section 2 Test	Jan. 17 Jan. 20 Jan. 21 Jan. 22 Jan. 23 Jan. 24 Jan. 27
Section 3: Subtracting Whole Numbers	
Sub-sections 1 & 2: Practice Problems 1 & 2 and #5 - 25 Sub-section 3: Practice Problems 3-6 and #26 - 46 Sub-section 4: Practice Problems 7-9 and #47 - 64 Sub-section 5: Practice Problems 10 & 11 and #65 - 78 #79-86 & Quick Quiz 3: 1-4;  Assignment to be handed in for marks & Review the whole unit Section 3 Test	Jan. 28 Jan. 29 Jan. 30 Jan. 31 Feb. 3 Feb. 4 Feb. 5

# **Section 4: Multiplying Whole Numbers**

Sub-section 1: Practice Problem 1 and #1-4; learn the times-table (1-9)	Feb. 6			
Sub-section 2: Practice Problems 2 – 4 and #5 - 24	Feb. 7			
Sub-section 3: Practice Problems 5 & 6 and #25- 38	Feb. 10			
Sub-section 4: Practice Problems 7 – 11 and #39 - 58	Feb. 11			
Sub-section 5: Practice Problems 12 & 13 and #59 - 76	Feb. 12			
Sub-section 6: Practice Problems 14 & 15 and #77 - 92	Feb. 13			
Quick Quiz 4: 1-4 & Assignment to be handed in for marks	Feb. 14			
Review for the test	Feb. 24			
Section 4 Test	Feb. 25			
Section 5: Dividing Whole Numbers				
Sub-section 1: Practice Problems 1 & 2 and #1 - 30	Feb. 26			
Sub-section 2: Practice Problems 3 - 5 and #31 - 56	Feb. 27			
Sub-section 3: Practice Problems 6 - 8 and #57 - 74	Feb. 28			
Sub-section 4: Practice Problems 9 & 10 and #75 - 86	Mar. 3			
#87 & 88, Quick Quiz 5: 1 – 4	Mar. 4			
Assignment to be handed in for marks	Mar. 5			
Review for the test	Mar. 6			
Section 5 Test	Mar. 7			
Midterm Review: How am I doing? Sections 1-5: #1 - 20	Mar. 10			
Study for Midterm	Mar. 11			
Midterm Exam	Mar. 12			
Section 6: Exponents and the Order of Operations				
Sub-section 1: Practice Problems 1 & 2 and #1 - 34	Mar. 13			
Practice Problem 3 and #35 – 52	Mar. 14			
Sub-section 2: Practice Problems 4 - 8	Mar. 17			
#53 - 80	Mar. 18			
#81 – 100 and Quick Quiz 6: 1 - 4 (No assignment)	Mar. 19			
Review for the test				
Section 6 Test				

# **Section 7: Rounding and Estimating**

Sub-section 1: Practice Problem 1-3 and #3-24	Mar. 24
Sub-section 1: Practice Problem 3-5 and #24-32	Mar. 25
Sub-section 2: Practice Problems 6 - 9 and #33 - 44	Mar. 26
Practice Problems 10 - 12 and #45 - 72	Mar. 27
Quick Quiz 7: 1-4; Review the section	Mar. 28
Section 7 Test	Mar. 31

# **Section 8: Solving Applied Problems Involving Whole Numbers**

Sub-section 1: Practice Problem 1 – 4	Apr. 1
#1 - 8	Apr. 2
<b>#</b> 9 - 16	Apr. 3
Sub-section 2: Practice Problem 5 - 7	Apr. 4
#17 - 25	Apr. 7
#26 – 34, Quick Quiz 8	Apr. 8
Assignment to be handed in for marks	Apr. 9
Review the section	Apr. 10
Section 8 Test	Apr. 11

Review for Final Apr. 14

Final Exam TBA (April 16 - 28)

# MA0060 Winter 2014 Schedule

Jan	uary 14			Su Mo Tu We Th Fr Sa 5 6 7 8 9 100 11 12 13 14 15 16 17 18 19 20 21 28 29 30 31	February 1.4 Su Mo Tu We Th Fr Sa  2 3 4 5 6 7 1 6 10 11 12 1 14 15 16 77 18 10 20 1 12 12 23 24 25 26 27 28
	Monday	Tuesday	Wednesday	Thursday	Friday
	Dec-30	31	Jan-1-14	2	3
30/12 - 2/1					
	6	7	8	9	10
9/1		Math Lab Orientation	Book Orientation		tion 1
1				PP 1-3 Ex 1-20	PP 4-7 Ex 21-40
9				Quiz	
	13	14	15	16	17
7			tion 1		Section 2
- 16/1	PP 8 Ex 41-58	Assign Due	Review	Test 1	PP 1-3 Ex 1-10
13		Quiz 1 #1-4			
	20	21	22	23	24
7			Section 2		
23/1	PP 4-6 Ex 11-20	PP 7 Ex 21-36	PP 8-9 Ex 37-52	Assign Due	Review
20 -				Quiz 2 #1-4	
	27	28	29	30	31
30/1	Section 2		Sec	tion 3	•
1 ~	Test 2	PP 1-2 Ex 5-25	PP 3-6 Ex 26-46	PP 7-9 Ex 26-46	PP 10-11 Ex 65-78
	1631.2	11 I L LX 5 L5			
27 - 30	Test 2	1112233			

This schedule is TENTATIVE and may change at the discretion of the instructor.

Fek	oruary 14			February 14  Su Mo Tu We Th Fr Sa  2 3 4 5 6 7 8  9 10 11 12 13 14 15  16 17 18 19 20 21  23 24 25 26 27 28	March 14  Su Mo Tu We Th Fr Sa  2 3 4 5 6 7 1  9 9 10 11 12 13 14 15  16 17 18 19 20 21 22  23 24 25 26 27 28 29  30 21
	Monday	Tuesday	Wednesday	Thursday	Friday
	Feb-3	4	5	6	7
		Section 3			tion 4
- 7	Ex 79-86	Assign Due	Test 3	Memorize Table 0 to 9	PP 2-4 Ex 5-24
Feb-3	Quiz 3 #1-4	Review		PP 1 Ex 1-4	
	10	11	12	13	14
4			Section 4	•	•
- 14	PP 5-6 Ex 25-38	PP 7-11 Ex 39-58	PP 12-13 Ex 59-76	PP 14-15 Ex 77-92	Assign Due
Feb-10					Quiz 4 #1-4
	17	18	19	20	21
_	Family Day		Winte	er Break	
Feb-17 - 21					
	24	25	26	27	28
28		tion 4		Section 5	
Feb-24 - 2	Review	Test 4	PP 1-2 Ex 1-30	PP 3-5 Ex 31-56	PP 6-8 Ex 57-74

## MA0060 Winter 2014 Schedule

Ma	rch 14			Su Mo Tu We Th Fr Sa  2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 28 38 38 20 21 22 20 31 25 26 27 28 29	April 14   Su Mo Tu We Th Fr Sa   6 7 8 9 10 11 12 2 4 4 5 11 12 13 14 15 16 17 18 19 20 21 12 13 14 15 16 17 18 19 20 21 22 28 29 30 20 22 24 25 26
	Monday	Tuesday	Wednesday	Thursday	Friday
	Mar-3	4	5	6	7
m			Section 5		
- 6/3	PP 9-10 Ex 75-86	Ex 87,88	Assign Due	Review	Test 5
'n		Quiz 5 #1-4			
	10	11	12	13	14
3	How am I doing?	Study for Midterm	Midterm	Sec	tion 6
13/3	Sec 1-5 #1-20			PP 1-2 Ex 1-34	PP 3 Ex 35-52
10-					
	17	18	19	20	21
	17	10	13	20	21
3		10	Section 6	20	21
. 20/3	PP 4-8	Ex 53-80		No Assignment	Test 6
17 - 20/3			Section 6		
1			Section 6 Ex 81-100	No Assignment	
17 -	PP 4-8	Ex 53-80	Section 6 Ex 81-100 Quiz 6 #1-4	No Assignment Review	Test 6
27/3 17 -	PP 4-8	Ex 53-80	Section 6  Ex 81-100  Quiz 6 #1-4	No Assignment Review	Test 6  28  Quiz 7 #1-4
17 -	PP 4-8	Ex 53-80	Section 6	No Assignment Review	Test 6
24 - 27/3 17 -	PP 4-8	Ex 53-80	Section 6	No Assignment Review	Test 6  28  Quiz 7 #1-4
24 - 27/3 17 -	PP 4-8  24  PP 1-3 Ex 3-24  31  Section 7	Ex 53-80  25  PP 4-5 Ex 25-32	Section 6	No Assignment Review  27  PP 10-12 Ex 45-72	Test 6  28  Quiz 7 #1-4  Review
- 3/4 24 - 27/3 17 -	PP 4-8  24  PP 1-3 Ex 3-24  31	Ex 53-80  25  PP 4-5 Ex 25-32	Section 6	No Assignment Review  27  PP 10-12 Ex 45-72	Test 6  28  Quiz 7 #1-4  Review
3/4 24 - 27/3 17 -	PP 4-8  24  PP 1-3 Ex 3-24  31  Section 7	Ex 53-80  25  PP 4-5 Ex 25-32	Section 6	No Assignment Review  27  PP 10-12 Ex 45-72	Test 6  28  Quiz 7 #1-4  Review

This schedule is TENTATIVE and may change at the discretion of the instructor.

Ар	ril 14			Su         Mo         Tu         We         Th         Fr         Sa           6         7         8         9         10         11         12         23         4         5           13         2         3         9         10         11         12	May 14  Su Mo Tu We Th Fr Sa  4 5 6 7 8 2 13  11 12 13 14 15 15 17  18 19 20 21 22 23 24  25 26 27 28 29 30 31
	Monday	Tuesday	Wednesday	Thursday	Friday
	Mar-31	Apr-1	2	3	4
3/4				tion 8	
31/3 - 3/4		PP 1-4	Ex 1-8	Ex 9-16	PP 5-7
	7	8	9	10	11
4			Section 8		
- 10/4	Ex 17-25	Ex 26-34	Assign Due	Review	Test 8
7 -			Quiz 8 #1-4		
	14	15	16	17	18
4	Last Class		Б	ams	Good Friday
- 17/4	Review				
14					
	21	22	23	24	25
4	From Apr-19 Exams				
- 24/4					
21.					
	28	29	30	May-1	2
/5	<b>♦</b> Exams			, -	_
1					
28/4 - 1/5					
. ,		This should be True			

This schedule is TENTATIVE and may change at the discretion of the instructor.