GPRC

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – WINTER 2013
<u>INTRODUCTION TO MATH 0060</u>

INSTRUCTOR: Sukhvir Sandhu **PHONE:** (780) 539-2810 or 2234

OFFICE: Math Lab A210 or C310 **E-MAIL:** ssandhu@gprc.ab.ca

OFFICE HOURS: Daily, 9:45 – 10:30 am and 11:30 – 12:00 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

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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 13**. 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 Tuesday, April 16.**

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.

LEARNING OUTCOMES

SECTION 1:

1. Write numbers in expanded form.
2. Write whole numbers in standard notations.
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.

GRADING CRITERIA:

Your final mark is determined by:

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

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**

WINTER 2013

MA0060 Topics/Tests

Section #	Topics	Recommended Time & Test Date	Date written	Mark
1	Understanding Whole Numbers	6 days January 17 Thursday		
2	Adding Whole Numbers	7 days January 28 Monday		
3	Subtracting Whole Numbers	7 days February 6 Wednesday		
4	Multiplying Whole Numbers	9 days February 26 Tuesday		
5	Dividing Whole Numbers	8 days March 8 Friday		
	Midterm (Sections 1 – 5)	**March 13 Wednesday**		
6	Exponents and Order of Operations	7 days March 22 Friday		
7	Rounding and Estimating	6 days April 2 Tuesday		
8	Solving Applied Problems Involving Whole Numbers	9 days April 15 Monday		
	Final Exam (Sections 1 – 8)	**To be announced (April 18-29)**		

Winter 2013
MA0060 Homework Schedule

Get yourself familiarized with the book and the Course Outline

      Quiz   **Jan. 9**

Note: Under each section, you must read and understand each example, do each Practice Problem and all the problems in the exercise at the end of each section. Check your answers before you do the next question.

Section 1: Understanding Whole Numbers

Sub-sections 1 & 2: Practice Problems 1, 2, & 3, and #1 - 20	**Jan. 10**
Sub-section 3: Practice Problems 4, 5, 6 & 7, and #21 - 40	**Jan. 11**
Sub-section 4: Practice Problem 8 and #41 - 58	**Jan. 14**
Quick Quiz 1: 1-4 **& <u>Assignment to be handed in for marks</u>**	**Jan. 15**
Review the whole unit	**Jan. 16**
Section 1 Test	**Jan. 17**

Section 2: Adding Whole Numbers

Sub-sections 1 & 2: Practice Problems 1-3 and #1 - 10	**Jan. 18**
Sub-sections 3 & 4: Practice Problems 4-6 and #11 - 20	**Jan. 21**
Sub-section 5: Practice Problem 7 and #21 - 36	**Jan. 22**
Sub-section 6: Practice Problems 8 & 9 and #37 - 52	**Jan. 23**
Quick Quiz 2: 1 – 4 **& <u>Assignment to be handed in for marks</u>**	**Jan. 24**
Review the whole unit	**Jan. 25**
Section 2 Test	**Jan. 28**

Section 3: Subtracting Whole Numbers

Sub-sections 1 & 2: Practice Problems 1 & 2 and #5 - 25	**Jan. 29**
Sub-section 3: Practice Problems 3-6 and #26 - 46	**Jan. 30**
Sub-section 4: Practice Problems 7-9 and #47 - 64	**Jan. 31**
Sub-section 5: Practice Problems 10 & 11 and #65 - 78	**Feb. 1**
#79-86 & Quick Quiz 3: 1-4	**Feb. 4**
<u>Assignment to be handed in for marks</u> & Review the whole unit	**Feb. 5**
Section 3 Test	**Feb. 6**

Section 4: Multiplying Whole Numbers

Sub-section 1: Practice Problem 1 and #1-4	
Memorize the times-table (1-9)	**Feb. 7**
Sub-section 2: Practice Problems 2 – 4 and #5 - 24	**Feb. 8**
Sub-section 3: Practice Problems 5 & 6 and #25- 38	**Feb. 11**
Sub-section 4: Practice Problems 7 – 11 and #39 - 58	**Feb. 12**
Sub-section 5: Practice Problems 12 & 13 and #59 - 76	**Feb. 13**
Sub-section 6: Practice Problems 14 & 15 and #77 - 92	**Feb. 14**
Quick Quiz 4: 1-4 **& <u>Assignment to be handed in for marks</u>**	**Feb. 15**
Review for the test	**Feb. 25**
Section 4 Test	**Feb. 26**

Section 5: Dividing Whole Numbers

Sub-section 1: Practice Problems 1 & 2 and #1 - 30	**Feb. 27**
Sub-section 2: Practice Problems 3 - 5 and #31 - 56	**Feb. 28**
Sub-section 3: Practice Problems 6 - 8 and #57 - 74	**Mar. 1**
Sub-section 4: Practice Problems 9 & 10 and #75 - 86	**Mar. 4**
#87 & 88, Quick Quiz 5: 1 – 4	**Mar. 5**
Assignment to be handed in for marks	**Mar. 6**
Review for the test	**Mar. 7**
Section 5 Test	**Mar. 8**

Midterm Review: How am I doing? Sections 1-5: #1 - 20	**Mar. 11**
Study for Midterm	**Mar. 12**
Midterm Exam	**Mar. 13**

Section 6: Exponents and the Order of Operations

Sub-section 1: Practice Problems 1 & 2 and #1 - 34	**Mar. 14**
Practice Problem 3 and #35 – 52	**Mar. 15**
Sub-section 2: Practice Problems 4 - 8	**Mar. 18**
#53 - 80	**Mar. 19**
#81 – 100 and Quick Quiz 6: 1 - 4 (No assignment)	**Mar. 20**
Review for the test	**Mar. 21**
Section 6 Test	**Mar. 22**

Section 7: Rounding and Estimating

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

Section 8: Solving Applied Problems Involving Whole Numbers

Sub-section 1: Practice Problem 1 - 4	**Apr. 3**
#1 - 8	**Apr. 4**
#9 - 16	**Apr. 5**
Sub-section 2: Practice Problem 5 - 7	**Apr. 8**
#17 - 25	**Apr. 9**
#26 - 34	**Apr. 10**
Quick Quiz 8 **& <u>Assignment to be handed in for marks</u>**	**Apr. 11**
Review the section	**Apr. 12**
Section 8 Test	**Apr. 15**
Module Review Problems (p. 98)	**Apr. 16**

Final Exam	**TBA (April 18-29)**

STUDENT RESPONSIBILITIES:

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.

1. Attend math classes regularly; your success in math is directly linked to your attendance. Attendance will be taken daily.

2. Arrive on time for class and remain for the duration of the scheduled class.

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. Arrange appropriate childcare; children are not permitted in the classroom.

7. Notify your instructor of any extenuating circumstances which may affect participation in class.

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 ON PLAGIARISM:

Please refer to the College Calendar regarding plagiarism, cheating, and the resultant penalties. These are serious issues and will be dealt with severely.