GPRC

DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2012
<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, 10:45-11:45 am and 2:30-3:30 pm 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 papers 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, in the text book is divided 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 of zero 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 **Monday, November 05**. 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, December 11.**

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:

6 section assignments/Quiz	12%
8 section tests	40 %
Midterm	15 %
Final Exam	33 %

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**

Rubrics for Assignment(s)

(Marking Scheme)

PURPOSE:

The purpose of a marking scheme is to communicate to the students what will be expected by the instructor while marking the assignment(s). I am sure that you will strive to do your best in the course. In order to meet your expectations, I recommend that you implement the following suggestions to ensure the quality of your work.

- Your work must be in a **<u>neat</u>** , presentable form and include the following: the date your stapled assignment is submitted and your name.

  (5 marks)

- Each problem in your assignment must include all the important steps which lead you to reach your final answer.   (3 marks)

- Any extra steps you used to solve a problem must be written in a column on the right side of the page titled **<u>Rough Work</u>.**

- One mark will be given for the correct answer.

- When required, provide the answer in a statement form.

- Each question in an assignment will be at most 5 marks. If there are 10 problems in an assignment, it will be at most 55 marks.

FALL 2012

MA0060 Tests / Examination

Section #	Topics	Recommended Time & Test Date	Date written	Mark
1	Understanding Whole Numbers	6 days Sept. 17 Monday		
2	Adding Whole Numbers	7 days Sept. 26 Wednesday		
3	Subtracting Whole Numbers	7 days Oct. 05 Friday		
4	Multiplying Whole Numbers	10 days Oct. 22 Monday		
5	Dividing Whole Numbers	7 days Oct. 31 Wednesday		
	Midterm (Sections 1 – 5)	**Nov. 05 Monday**		
6	Exponents and the Order of Operations	7 days Nov. 19 Monday		
7	Rounding and Estimating	6 days Nov. 27 Tuesday		
8	Solving Applied Problems Involving whole Numbers	9 days Dec. 10 Monday		
	Final Exam (Sections 1 – 8)	**To be announced (Dec. 13 - 22)**		

Fall 2012
MA0060 Homework Schedule

Get yourself familiarized with the book and the Course Outline

Quiz	September 7

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	**Sept. 10**
Sub-section 3: Practice Problems 4, 5, 6 & 7, and #21 - 40	**Sept. 11**
Sub-section 4: Practice Problem 8 and #41 - 58	**Sept. 12**
Quick Quiz 1: 1-4 **& <u>Assignment to be handed in for marks</u>**	**Sept. 13**
Review the whole unit	**Sept. 14**
Section 1 Test	**Sept. 17**

Section 2: Adding Whole Numbers

Sub-sections 1 & 2: Practice Problems 1-3 and #1 - 10	**Sept. 18**
Sub-sections 3 & 4: Practice Problems 4-6 and #11 - 20	**Sept. 19**
Sub-section 5: Practice Problem 7 and #21 - 36	**Sept. 20**
Sub-section 6: Practice Problems 8 & 9 and #37 - 52	**Sept. 21**
Quick Quiz 2: 1 – 4 **& <u>Assignment to be handed in for marks</u>**	**Sept. 24**
Review the whole unit	**Sept. 25**
Section 2 Test	**Sept. 26**

Section 3: Subtracting Whole Numbers

Sub-sections 1 & 2: Practice Problems 1 & 2 and #5 - 25	**Sept. 27**
Sub-section 3: Practice Problems 3-6 and #26 - 46	**Sept. 28**
Sub-section 4: Practice Problems 7-9 and #47 - 64	**Oct. 1**
Sub-section 5: Practice Problems 10 & 11 and #65 - 78	**Oct. 2**
#79-86 & Quick Quiz 3: 1-4	**Oct. 3**
<u>Assignment to be handed in for marks</u> & Review the whole unit	**Oct. 4**
Section 3 Test	**Oct. 5**

Section 4: Multiplying Whole Numbers

Sub-section 1: Practice Problems 1 and #1-4	**Oct. 09**
Sub-section 2: Practice Problems 2 – 4 and #5 - 24	**Oct. 10**
Sub-section 3: Practice Problems 5 & 6 and #25- 38	**Oct. 11**
Sub-section 4: Practice Problems 7 – 11 and #39 - 58	**Oct. 12**
Sub-section 5: Practice Problems 12 & 13 and #59 - 76	**Oct. 15**
Sub-section 6: Practice Problems 14 & 15 and #77 - 92	**Oct. 16**
Quick Quiz 4: 1-4 **& <u>Assignment to be handed in for marks</u>**	**Oct. 17**
Review and memorize the times-table from 1-9	**Oct. 18**
Review for the test	**Oct. 19**
Section 4 Test	**Oct. 22**

Section 5: Dividing Whole Numbers

Sub-section 1: Practice Problems 1 & 2 and #1 - 30	**Oct. 23**
Sub-section 2: Practice Problems 3 - 5 and #31 - 56	**Oct. 24**
Sub-section 3: Practice Problems 6 - 8 and #57 - 74	**Oct. 25**
Sub-section 4: Practice Problems 9 & 10 and #75 - 86	**Oct. 26**
#87 & 88, Quick Quiz: 1 - 4 Review for the test (No assignment)	**Oct. 29**
Review for the test	**Oct. 30**
Section 5 Test	**Oct. 31**

Midterm Review: How am I doing? Sections 1-5: #1 - 20	**Nov. 01**
Study for Midterm	**Nov. 02**

Midterm Exam	**Nov. 05**

Section 6: Exponents and the Order of Operations

Sub-section 1: Practice Problems 1 & 2 and #1 - 34	**Nov. 06**
Practice Problem 3 and #35 – 52	**Nov. 07**
Sub-section 2: Practice Problems 4 - 8	**Nov. 08**
#53 - 80	**Nov. 14**
#81 – 100 and Quick Quiz 6: 1 - 4 (No assignment)	**Nov. 15**
Review for the test	**Nov. 16**
Section 6 Test	**Nov. 19**

Section 7: Rounding and Estimating

Sub-section 1: Practice Problems 1 - 3 and #3 - 24	**Nov. 20**
Practice Problems 4 & 5 and #25 - 32	**Nov. 21**
Sub-section 2: Practice Problems 6 - 9 and #33 - 44	**Nov. 22**
Practice Problems 10 - 12 and #45 - 72	**Nov. 23**
Quick Quiz 7: 1-4; **Review the section**	**Nov. 26**
Section 7 Test	**Nov. 27**

Section 8: Solving Applied Problems Involving Whole Numbers

Sub-section 1: Practice Problem 1 - 4	**Nov. 28**
#1 - 8	**Nov. 29**
#9 - 16	**Nov. 30**
Sub-section 2: Practice Problem 5 - 7	**Dec. 03**
#17 - 25	**Dec. 04**
#26 - 34	**Dec. 05**
Quick Quiz 8 **& <u>Assignment to be handed in for marks</u>**	**Dec. 06**
Review the section	**Dec. 07**
Section 8 Test	**Dec. 10**

Final Exam	**TBA (December 13-22)**

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:

- 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.

- Students are expected to be punctual. Arrive on time for classes and remain for the duration of scheduled classes.

- Refrain from disruptive talking or socializing during class time.

- Be respectful of others regarding food or beverages in the classroom. Clean up your eating area and dispose of garbage.

- Recycle paper, bottles, and cans in the appropriate containers.

- Children are not permitted in the classrooms.

- 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.