



DEPARTMENT OF ACADEMIC UPGRADING

COURSE OUTLINE – FALL 2015

MA 0060 A2B2VC - Basic Mathematics I – 5 (5-0-0) HS

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

OFFICE: Math Lab or B301B **EMAIL:** SSandhu@gprc.ab.ca

OFFICE

HOURS: Daily 10:00 to 11:00 am, or by appointment

PREREQUISITES:

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: Five hours/week

DELIVERY MODES:

- 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 **Friday, October 30**. 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 8.**

OBJECTIVES:

The aims of this course are to provide students with the skills 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.

LEARNING OUTCOMES:

As a result of taking this course, students will gain the ability to:

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. Divide a whole number by a power of 10.
5. Check the answer to a division problem.
6. 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:

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage of Class	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

Fall 2015
MA0060 Topics/Tests

Test #	% towards the Final Exam	Topics	Recommended Test Date	Date written	Mark
1	8 %	Understanding Whole Numbers & Adding Whole Numbers	September 23		
2	8 %	Subtracting Whole Numbers & Multiplying Whole Numbers	October 16		
3	4%	Dividing Whole Numbers	October 27		
	15 %	Midterm (Sections 1 – 5)	October 30		
4	8 %	Exponents & Order of Operations & Rounding and Estimating	November 20		
5	6 %	Solving Applied Problems Involving Whole Numbers	December 3		
	38 %	Final Exam (Sections 1 – 8)	To be announced (December 10 -19)		

EVALUATION CRITERIA:

Your final mark is determined by:

Introductory quiz/6 section assignments	13%
5 section tests	34 %
Midterm	15 %
Final Exam	38 %

STUDENT RESPONSIBILITIES:

In addition to the *Student Rights and Responsibilities* as set out in the college website: https://www.gprc.ab.ca/files/forms_documents/StudentRightsandResponsibilities.pdf 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.

STUDENT PRINTING POLICY:

Please refer to the College website:

<https://www.gprc.ab.ca/files/policies/admin/StudentPrintingPolicy.pdf>

for the printing policy which limits the free use of paper; extra charges will applied if the limit is exceeded.

STATEMENT ON PLAGIARISM AND CHEATING: Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at http://www.gprc.ab.ca/files/forms_documents/Student_Misconduct.pdf

Fall 2015
MA0060 Homework Schedule

Get yourself familiarized with the book and the Course Outline

Quiz

Sept. 4

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. 8

Sub-section 3: Practice Problems 4, 5, 6 & 7, and #21 - 40

Sept. 9

Sub-section 4: Practice Problem 8 and #41 - 58

Sept. 10

Quick Quiz 1: 1-4 & Assignment to be handed in for marks

Sept. 11

Section 2: Adding Whole Numbers

Sub-sections 1 & 2: Practice Problems 1 - 3 and #1 - 10

Sept. 14

Sub-sections 3 & 4: Practice Problems 4 - 6 and #11 - 20

Sept. 15

Sub-section 5: Practice Problem 7 and #21 - 36

Sept. 16

Sub-section 6: Practice Problems 8 & 9 and #37 - 52

Sept. 17

Quick Quiz 2: 1 - 4 & Assignment to be handed in for marks

Sept. 18

Review Section 1 and Section 2

Sept. 21 & Sept. 22

Test 1 (Section 1 and Section 2) on Wednesday

Sept. 23

Section 3: Subtracting Whole Numbers

Sub-sections 1 & 2: Practice Problems 1 & 2 and #5 - 25

Sept. 24

Sub-section 3: Practice Problems 3 - 6 and #26 - 46

Sept. 25

Sub-section 4: Practice Problems 7 - 9 and #47 - 64

Sept. 28

Sub-section 5: Practice Problems 10 & 11 and #65 - 78

Sept. 29

#79-86 & Quick Quiz 3: 1 - 4, Assignment to be handed in for marks

Sept. 30

Section 4: Multiplying Whole Numbers

Sub-section 1: Practice Problem 1 and #1 - 4

Memorize the times-table (0 - 9)

Oct. 1 & Oct. 2

Sub-section 2: Practice Problems 2 - 4 and #5 - 24

Oct. 5

Sub-section 3: Practice Problems 5 & 6 and #25 - 38

Oct. 6

Sub-section 4: Practice Problems 7 - 11 and #39 - 58

Oct. 7

Sub-section 5: Practice Problems 12 & 13 and #59 - 76

Oct. 8

Sub-section 6: Practice Problems 14 & 15 and #77 - 92

Oct. 9

Quick Quiz 4: 1-4 & Assignment to be handed in for marks

Oct. 13

Review Section 3 and Section 4

Oct. 14 & Oct. 15

Test 2 (Section 3 and Section 4) on Friday

Oct. 16

Section 5: Dividing Whole Numbers

Sub-section 1: Practice Problems 1 & 2 and #1 - 30

Oct. 19

Sub-section 2: Practice Problems 3 - 5 and #31 - 56

Oct. 20

Sub-section 3: Practice Problems 6 - 8 and #57 - 74

Oct. 21

Sub-section 4: Practice Problems 9 & 10 and #75 - 86	Oct. 22
#87 & 88, Quick Quiz 5: 1 – 4, Assignment to be handed in for marks	Oct. 23
Review Section 5	Oct. 26
Test 3 (Section 5) on Tuesday	Oct. 27
Midterm Review: How am I doing? Sections 1-5: #1 - 20	Oct. 28
Study for Midterm	Oct. 29
Midterm Exam (Friday)	Oct. 30
Section 6: Exponents and the Order of Operations	
Sub-section 1: Practice Problems 1 & 2 and #1 - 34	Nov. 2
Practice Problem 3 and #35 – 52	Nov. 3
Sub-section 2: Practice Problems 4 - 8	Nov. 4
#53 - 80	Nov. 5
#81 – 100 and Quick Quiz 6: 1 - 4 (No assignment)	Nov. 6
Section 7: Rounding and Estimating	
Sub-section 1: Practice Problem 1 - 3 and #3 - 24	Nov. 9
Practice Problems 4 & 5 and #25 - 32	Nov. 10
Sub-section 2: Practice Problems 6 - 9 and #33 - 44	Nov. 16
Practice Problems 10 - 12 and #45 – 72; Quick Quiz 7: 1-4	Nov. 17
Review Section 6 and Section 7	Nov. 18 & Nov. 19
Test 4 (Section 6 and Section 7) on Friday	Nov. 20
Section 8: Solving Applied Problems Involving Whole Numbers	
Sub-section 1: Practice Problem 1 - 4	Nov. 23
#1 - 8	Nov. 24
#9 - 16	Nov. 25
Sub-section 2: Practice Problem 5 - 7	Nov. 26
#17 - 25	Nov. 27
#26 - 34	Nov. 30
Quick Quiz 8 1 - 4 & Assignment to be handed in for marks	Dec. 1
Review the section	Dec. 2
Test 5 on Thursday	Dec. 3
Review for the Final Exam	Dec. 4 to Dec. 8
Final Exam	TBA (Dec. 10 – Dec.19)