GPRC

DEPARTMENT OF ACADEMIC UPGRADING
Course Outline – Fall 2020
MA0113 (A2&B2) - Mathematics Grade 10-3 Equivalent - 5 (0-0-7.5) HS 112.5 Hours for 15 Weeks

INSTRUCTOR:	Sukhvir Sandhu	**PHONE:**	(780) 539-9787
OFFICE:	Not Applicable	**E-MAIL:**	ssandhu@gprc.ab.ca

OFFICE HOURS: 2:30 pm to 3:30 pm on Mon., Tues., & Thur.; or Appointment

FALL 2020 DELIVERY: **Remote Delivery.**

This course is delivered remotely. There are no face-to-face requirements. Students must have a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@gprc.ab.ca

CALENDAR DESCRIPTION:

This course is a modularized program of study which covers unit pricing and currency exchange; earning an income; measurement including surface area and volume; conversion between SI and imperial units, Celsius and Fahrenheit temperature scales; angles and parallel lines; scale diagram of polygon figures; and trigonometry of right triangles.

PREREQUISITES:

MA0091 or MA0093 or equivalent math placement test scores

REQUIRED TEXT/RESOURCE MATERIALS:

- Math Works 10 Workbook; Math Works 10 Textbook will be available to students in the Math Lab during lab hours.
- Other supplies you will need include a binder, lined paper, unlined paper, graph paper, mechanical pencil, scientific calculator, geometry set.

DELIVERY MODE:

- MA 0113 is a modularized math course divided into 8 separate topics called chapters. Each chapter is further divided into sections. Each section introduces one new skill at a time followed by a new term written in **bold letters,** with its explanation on the left margin. Each new skill is demonstrated with an example with clearly stated instructions, followed by **Build Your Skills** exercise questions. Study the term and its explanation and work through the example before starting the exercise. The answers to all the exercises are available in the back of your workbook.

- The mastery of all the skills covered under each section is further tested in an exercise called **Practice Your New Skills.** Check your work often to make sure you understand the newly introduced concepts. The key to success in working with a one-to-one delivery method is to ask questions whenever you have difficulty understanding the instructions, the examples, or the exercises. **Do not hesitate to ask for help.**

- **Tests and oral exam must be done as listed on page 6.** Follow these dates as closely as you can. You must revise and review the material thoroughly before taking section(s) test/exam. You are encouraged to write a test early if you are prepared. When writing a test, be sure to show all your work on the test paper. Marks are given for the method as well as the final answer. Even though 50% is a passing mark, a mark of **at least 60% in any chapter(s)** test is recommended.

- Upon completion of the first four chapters, a midterm test will be written on or before **October 26, Monday**. If you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all eight chapters, 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.

- **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 must be written by Monday, December 7.**

COURSE OBJECTIVES:
This course introduces students to:
- the concept of conversion between Canadian currency and foreign currencies using proportional reasoning
- the terminology of income such as wages including overtime, salary, contracts, commissions, piecework etc.
- SI units and imperial units and their conversion

- real life problems, using SI and imperial units, that involve surface area and volume of complex figures
- the concept of mass and weight, and temperature conversions
- determining whether two lines are parallel using certain angles
- the characteristics that make triangles similar
- the concept of angle of elevation and angle of depression and primary trigonometric ratios

LEARNING OUTCOMES:

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

- Calculate percent and solve problems that involve unit pricing using proportional reasoning
- Convert between Canadian currency and foreign currencies
- Calculate deductions, given the rate of deductions, and find net pay
- Convert measurement between SI units and imperial units
- Solve problems, using SI and imperial units, that involve the surface area and volume of general and complex 3-D object
- Perform conversions such as between mass and volume, and temperature scales
- Solve problems involving angles and pairs of angles, and parallel, non-parallel, perpendicular and transversal lines
- Identify images that are not similar to the original diagrams
- Solve problems that require the manipulation and application of formulas related to the Pythagorean Theorem and primary trigonometric ratios

TRANSFERABILITY: N/A

EVALUATION CRITERIA:

Your final mark is determined by:

4 section tests	**32 %**
2 oral exams	**20 %**
Midterm	**18 %**
Final Exam	**30 %**

GRADING CRITERIA:

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**

How to use the book:

1. Read the title of each chapter, table of contents page, and title of each section. You will observe a progressive growth of operations/concepts.

2. Read and thoroughly understand the concepts and terminology of a section.

3. Understand and do each example very carefully using the terminology. *If difficulties arise, meet with your instructor*.

4. Match each question in an exercise with the corresponding examples before the exercise. *If difficulties arise, return in your module and rework the examples.*

5. Attempt the exercise questions and check the answers before moving on to the next section. *If difficulties arise, meet with your instructor*.

6. Review the terminology of the module(s) before taking any test/exam.

MA0113 Test Schedule for Fall 2020

Topics / Tests / Exams

Test #	% towards the Final Exam	Chapter Title	Recommended Test Date	Date Written	Mark Obtained
1	8%	**Chap. 1**: Unit Pricing and Currency Exchange **Chap. 2**: Earning An Income	September 28 Monday		
2	8%	**Chap. 3**: Length, Area, and Volume **Chap. 4**: Mass, Temperature, and Volume	October 21 Wednesday		
1ˢᵗ oral exam **Midterm**	**10%** **18%**	**All of the Above**	**Student will decide** **October 26 Monday**		
3	8%	**Chap. 5**: Angles and Parallel Lines **Chap. 6**: Similarity of Figures	November 18 Wednesday		
4	8%	**Chap. 7**: Trigonometry of Right Triangles	December 7 Monday		
2ⁿᵈ 0ral exam **Final Exam**	**10%** **30%**		**Student will decide** **TBA (Dec. 10 - 19)**		

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. Get help as soon as are stuck!

4. Children are not permitted in the classrooms.

5. 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.