# DEPARTMENT OF ACADEMIC UPGRADING

## COURSE OUTLINE – FALL 2010

## INTRODUCTION TO MATH 0100 (No Friday Class)


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

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


**OFFICE HOURS:** Tuesday & Thursday 10:00 to 11:30; Every day 2:00 -2:30

**PREREQUISITE(S)/COREQUISITE:**

MA0090 or equivalent math placement test score

**REQUIRED TEXT/RESOURCE MATERIALS:**

Package of MA0100 modules, 2005

Scientific calculator; graph paper

**CALENDAR DESCRIPTION:**

The course includes a review of basic computational skills, number sets, exponents, basic operations on polynomials including factoring, equations, and inequalities, algebraic word problems, introduction to trigonometry, shape and space geometry, graphing and data analysis.

**CREDIT/CONTACT HOURS:**

MA 0100 High School Preparatory Mathematics 5 (5-0-0)

Time: 75 Hours

**DELIVERY MODE(S):**

MA0100 is a modularized course. It is divided into 10 separate units called modules. The instructions for each topic are given in the modules, followed by several examples and exercises. Study the instructions and work through the examples before starting each exercise. The answers for each exercise are given at the end of the module. Check your work often to make sure you understand each new topic. The key to success in working with modules is to ask questions whenever you have difficulty understanding the instructions, the examples, or the exercises. **Do not hesitate to ask for help.**

After each module you must write a test. When writing a test, be sure to show all of your work on the test paper. Marks are given for method as well as final answer. A passing mark of 60% is required on the test before continuing on to the next module. 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.

A 50-minute midterm, which will cover the first five modules, must be written by **Thursday, October 21. I**f you miss this date, you will receive a mark of 0% on your midterm. Upon completion of all the course modules, you will write a three hour final exam. Be sure to leave time to prepare for these important exams! They are worth a large percentage of your final grade.

The recommended test date for each module and the midterm is on the back of the next page. 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 need to reassess your math skills to ensure that you are placed in a course where you can be successful. **All tests must be written by Monday, December 6.**

**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.

**SUCCESS STANDARD**

Although 50% is considered a pass for this course, if you wish to be successful at the next level, we strongly recommend that you achieve a mark of 60% or better.

**GRADING CRITERIA:**

Your final mark is determined by:

| | |
|---|---|
| 10 module tests | 50% |
| Midterm | 15% |
| Final Exam | 35% |

| **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** |

# Objectives / Tests / Examinations

| Module | Objectives / Topics | Recommended Time & Test Date | Date written | Your Mark |
|---|---|---|---|---|
| 1 | Review<br>- basic notations<br>- decimals, fractions & integers - four basic operations<br>- order of operations, percent | 4 days<br>Sept.9<br>Thursday | | |
| 2 | Numbers<br>- sets | 2 days<br>Sept. 14<br>Tuesday | | |
| 3 | Exponents<br>- laws of exponents<br>- scientific notation | 6 days<br>Sept. 23<br>Thursday | | |
| 4 | Introduction to Polynomials<br>- four basic operations | 6 days<br>Oct. 5<br>Tuesday | | |
| 5 | Products and Factoring<br>- binomial multiplication<br>-factoring, common factor<br>-trinomials and difference of squares | 7 days<br>Oct. 19<br>Tuesday | | |
| | **MIDTERM - must be written on or before** | **Thursday<br>Oct. 21** | | |
| 6 | Equations and Inequalities<br>-solving<br>-evaluating expressions, formulas<br>-rearranging formulas | 7 days<br>Nov. 3<br>Wednesday | | |
| 7 | Language of Algebra<br>-writing algebraic expressions and equations<br>-word problems | 5 days<br>Nov. 15<br>Monday | | |
| 8 | Geometry<br>-plane geometry | 4 days<br>Nov. 22<br>Monday | | |
| 9 | Trigonometry<br>- congruent & similar triangles<br>- tangent, sine & cosine with applications | 5 days<br>Nov. 30<br>Tuesday | | |
| 10 | Graphs & Data Analysis | 3 days<br>Dec. 6<br>Monday | | |
| | **FINAL EXAM - 3 HOURS** | **TBA<br>(Dec. 9-18)** | | |

# Homework Schedule

**1.** Review

| 1-7 | 8-14 | 15&16&Review | **Test: Thursday Sept. 9** |
|---|---|---|---|
| **Sept. 2** | **7** | **8** | |

**2.** Numbers

| 1-3 | 4&Review | **Test: Tuesday Sept. 14** |
|---|---|---|
| **Sept.9** | **13** | |

**3.** Exponents

| 1&2 | 3 | 4&5 | 6 | 7 | Review | **Test: Thursday Sept. 23** |
|---|---|---|---|---|---|---|
| **Sept. 14** | **15** | **16** | **20** | **21** | **22** | |

**4.** Introduction to Polynomials

| 1&2 | 3&4 | 5&6 | 7&8 | 9&10 | Review | **Test: Tuesday Oct. 5** |
|---|---|---|---|---|---|---|
| **Sept.23** | **27** | **28** | **29** | **30** | **Oct.4** | |

**5.** Products and Factoring

| 1 | 2 | 3&4 | 5 | 6 | 7&8 | Review | **Test: Tuesday Oct. 19** |
|---|---|---|---|---|---|---|---|
| **Oct.5** | **6** | **7** | **12** | **13** | **14** | **18** | |

## Midterm on Thursday Oct. 21st

**6.** Equations and Inequalities

| 1&2 | 3&4 | 5 | 6 | 7&8 | 9&10 | 11&Review | **Test: Wednes. Nov. 3** |
|---|---|---|---|---|---|---|---|
| **Oct.21** | **25** | **26** | **27** | **28** | **Nov.1** | **2** | |

**7.** Language of Algebra

| 1 | 2&3&4 | 5 | 6&7 | 8&Review | **Test: Monday Nov. 15** |
|---|---|---|---|---|---|
| **Nov.3** | **4** | **8** | **9** | **10** | |

**8.** Geometry

| 1 | 2 | 3&4 | Review | **Test: Monday Nov. 22** |
|---|---|---|---|---|
| **Nov.15** | **16** | **17** | **18** | |

**9.** Trigonometry

| 1 | 2&3 | 4 | 5&6 | Review | **Test: Tuesday Nov. 30** |
|---|---|---|---|---|---|
| **Nov.22** | **23** | **24** | **25** | **29** | |

**10.** Graphs and Data Analysis

| 1 | 2&3 | 4&5&Review | **Test: Monday Dec. 6** |
|---|---|---|---|
| **Nov.30** | **Dec.1** | **2** | |

## Final Exam: (Dec. 9 – 18) to be announced

**STUDENT RESPONSIBILITIES:**

In addition to the ***Student Rights and Responsibilities*** as set out in the **College Calendar** (pages 47-50), 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 ON PLAIGIRISM:**
Please refer to pages 48-49 of the College Calendar regarding plagiarism, cheating, and the resultant penalties. These are serious issues and will be dealt with severely.