Foundations of Math and Pre-Calculus 10 Mr. Sivertson

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Welcome to Foundations of Math and Pre-Calculus 10. This course is intended to develop your ability to analyze and problem solve using algebraic and graphical methods in preparation for studies in college or university. You will be expected to use both methods in various situations. An important aspect of this course will be for you to develop a logical method of showing your solutions. The topics we will be covering this semester are:

* + - Real Numbers
      * Number Systems
      * GCF and LCM
      * Rational and Irrational Numbers
      * Exponential Notation
    - Polynomials
      * Classifying Polynomials
      * Expanding Polynomials
      * Factoring Polynomials
    - Relations and Functions
      * Relations versus Functions
      * Linear Functions
      * Non-Linear Functions
    - Linear Functions
      * Slope
      * Rate of Change
      * Parallel and Perpendicular Lines
      * Different Forms of Linear Functions
      * Applications of Linear Equations
    - Systems of Equations
      * Solving Systems by Graphing
      * Solving Systems by Elimination
      * Solving Systems by Substitution
      * Applications of Systems
      * Arithmetic Sequences and Series
    - Finance
      * Simple versus Compound Interest
      * Gross and Net Pay
      * Tax Rates
    - Trigonometry
      * Primary Trigonometric Ratios
      * Exact Values of Special Angles
      * Applications of Trigonometry

The material will be learned through classroom discussion, textbook assignments, worksheets, homework and quizzes. Your mark will be determined approximately by Classroom Assessment (35%), Unit Tests (45%), and a Final Exam (20%).

Corrections on assignments can be done for full marks provided they are completed and handed in before the unit test. Corrections on assignments must be done on a separate piece of paper, stapled to the front of the original assignment, showing a full understanding of the question. Graphs must be done on graph paper. No late assignments will be accepted. These will be given a mark of 0.

There will be no retests given. However, at the end of the course I will drop your lowest test score.

Your final mark will be given as a percentage, with the following provincially mandated letter grade:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A | B | C+ | C | C- | I/F |
| 100% - 86% | 85% - 73% | 72% - 67% | 66% - 60% | 59% - 50% | 49% - 0% |

It is your responsibility to make up any missed work, be sure to get notes from a classmate. I record what was accomplished in class on the Math 10 blog on my website. On the rare occasion that you miss a test, you will be expected to write the test on the next day that you attend class. There will be lots of time given in class to do assignments, but most people will not be able to complete everything in class, so be prepared to do some Math work each night. Extra help is available, from me in room 217 most lunch periods and before and after school if arranged.

It is expected that you arrive to class on time, prepared to work, with all necessary supplies: a Theory and Problems for Foundations of Mathematics and Pre-Calculus 10 workbook, a notebook, notepaper, graph paper, pen, pencil, eraser, ruler, and scientific calculator (no smart phones please).

To be successful in this course please follow the following guidelines:

* Cell phones should be off and away. Cell phones are an excellent resource for many workplace situations. However, they are also an incredible distraction for many people. The benefits of having a cell phone are negated by its misuse, therefore no phones are allowed in class.
* Do not plagiarize another student’s work. Plagiarism is the act of presenting someone else’s work as if it were your own. This class is about learning how to think. If you simply copy another student’s assignment you will not have learned the material and will most likely do poorly on tests.
* Come to all classes on time, pay attention, and ask questions. You’re here to learn. If you are having trouble following the lesson, ask me to repeat the idea or to do another example. I want you to be successful.
* Complete and hand in all assignments. Sometimes students finish part of an assignment or neglect to hand in an assignment. Not only does this affect your mark directly but you also miss out on feedback that I can give you on your assignment. As well, you will not be given the opportunity to do corrections on your tests.