*Coquitlam Learning Opportunity Centre*

**LITERACY FOUNDATIONS MATH − LEVEL 5**

**INSTRUCTOR:** Angus Chan anchan@sd43.bc.ca

**SCHEDULE:** Tues/Thurs 4:30pm−9:00pm

*★tutorial support is available in Room 2 or 3 from any math teacher at CLOC during any CLOC Learning Centre hours★*

**INTRODUCTION**

Foods & Nutrition 11 is a self-paced, self-directed course designed for adults who have been out of school for some time and who need to review basic algebra and geometry skills.

**COURSE OUTLINE**

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| --- | --- |
| Unit 1 | Fractions |
| Unit 2 | Ratio, Proportion, Rate, and Percent |
| Unit 3 | Geometry |
| Unit 4 | Algebra I – Part 1   * Numbers for Algebra * Tools for Algebra * Solving Equations |
| Unit 5 | Algebra I – Part 2   * Coordinate System * Linear Equations |
| Unit 6 | Algebra II – Part 1   * Exponents * Roots and Radicals |
| Unit 7 | Algebra II – Part 2   * Polynomials * Coordinate Geometry |

**PRESCRIBED LEARNING OUTCOMES** *It is expected that students will:*

Number

* *demonstrate an understanding of multiplication and division of fractions with like and unlike denominators concretely, pictorially, and symbolically*
* *determine the relationship between positive repeating decimals and positive fractions (e.g. 1/3) and positive terminating decimals and positive fractions (e.g. 1/8)*
* *compare and order fractions, decimals, and whole numbers using benchmarks (e.g. 0, ½, 1)*
* *solve problems involving the application of ratios and proportions*
* *solve problems involving percentages and justify the solution*
* *explain the process for addition, subtraction, multiplication, and division of integers concretely, pictorially, and symbolically*
* *demonstrate an understanding of powers as repeated multiplication and explain the meaning of the base, coefficient, and exponent in a power*
* *write powers as the product of factors and explain their meaning*
* *evaluate expressions involving powers with integral bases*
* *demonstrate an understanding of exponent rules for the multiplication and division of powers to solve problems*
* *express a given number using scientific notation*
* *simplify expressions, including exponents, using order of operations*

Patterns and Relations

* *represent algebraic expressions and equations in words*
* *represent and describe patterns and relationships using graphs and a table of values*
* *apply and explain how preservation of equality is used to solve equations*
* *distinguish between expressions and equations and explain the similarities and differences*
* *evaluate an expression given the value of the variable*

Shape and Space

* *explain the process for determining the circumference and area of a circle*
* *calculate the volume of triangular prisms, cylinders, cones, and pyramids*
* *identify and plot points in the four quadrants of a Cartesian plane using ordered pairs*

Statistics and Probability

* *read, interpret, and construct line graphs from a given data set*
* *express and interpret probabilities as ratios, fractions, or percents*

**LEARNING RESOURCES**

Study booklets for each unit will be provided. Recommended online resources are also available.

**LITERACY FOUNDATIONS MATH at CLOC**

Literacy Foundations Math at CLOC is a **self-paced, self-directed** course. You will be expected to work independently and to manage your time productively. If needed, individual help is available at CLOC during any Learning Centre hours. An important element for success in this course will be your study skills. Successful students establish a study schedule and stick to it. It is much more effective to do some math practice every day rather than engage in periodic “marathon” sessions. You are expected to complete the Unit 1 test within one month after registration, and you have a maximum of 10 months to complete this course at CLOC.

**EVALUATION**

Evaluation in Literacy Foundations Math includes a test at the end of each unit. Calculators are allowed on all tests. The tests will be weighted as follows:

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| --- | --- | --- |
| **TEST** | **TOPIC** | **PERCENT** |
| Unit 1 | Fractions | **10** |
| Unit 2 | Ratio, Proportion, Rate, Percent | **20** |
| Unit 3 | Geometry | **20** |
| Unit 4  Unit 5 | Algebra I – Part 1  Algebra I – Part 2 | **15**  **10** |
| Unit 6 Unit 7 | Algebra II – Part 1  Algebra II – Part 2 | **15**  **10** |
|  |  | **100** |