MOHAWK VALLEY COMMUNITY COLLEGE

UTICA and ROME, NEW YORK

COURSE OUTLINE

MA096

MATHEMATICAL LITERACY

Prepared November 2015

COURSE OUTLINE

Title: Mathematical Literacy

Catalog Number: MA09x

Contact Hours: 4

Practicum Hours: 0

Credit Hours: 0

Prerequisite: An appropriate placement test score or MA089 Arithmetic.

Catalog

Description: This course focuses on math for everyday life and prepares students to take a college-level non- STEM course in mathematics. It integrates fluency with numbers, proportional reasoning, data interpretation, algebraic reasoning, mathematical modeling, and communicating quantitative information. Mathematical concepts are investigated through cooperative learning activities based on real-life contexts.

**LEARNING OUTCOMES:**

**Upon satisfactory completion of this course, the successful student will be able to:**

1. Apply the concepts of numeracy to investigate and describe quantitative relationships and solve problems in a variety of contexts.
2. Represent proportional relationships and solve problems that require an understanding of ratios, rates, proportions, scaling, and data.
3. Reason using the language and structure of algebra to investigate, represent, and solve problems.
4. Represent relationships between quantities in multiple ways (tables, equations, graphs) and solve problems that require an understanding of mathematical modeling.
5. Communicate quantitative information in writing.

 Teaching Guide

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**CONTENT OUTLINE:**

| Topics Covered | Time Frame in50-Minute Hours |
| --- | --- |
| Starting Strong Teacher selected materials from CarnegieNumeracyQuantitative situations in real life Making sense of large numbers, scientific notationEstimationOrder of OperationsPerform multi-step calculationsConverting between percents, ratios, and decimals in contextProbability (percent and proportion)Proportional ReasoningUsing ratio and proportion to make sense of large numbersRelative and absolute changePicture data with graphsMeasures of central tendencyRatio/proportion in index numbersAlgebraic ReasoningConverting unitsMeaning and use of variablesGeometry and using formulas to make financial decisionsSolving for an unknownSolving proportionsUsing ModelsLinear models (equations, graphs, slope)Exponential growth Comparing linear and exponential change  | 623121.52132241.531.542.51463 |
| Note: Communicating quantitative information in writing is embedded throughout the course.Total | 56 hours |