MAM101: Mathematics 7

Course Title: Mathematics 7
GRADE LEVEL: 7
CODE: MAM101
COURSE LENGTH: 36 weeks

Major Concepts/Content: The mathematics 7 course is designed to ensure that students understand the basic concepts of mathematics. The course includes practice in the four basic operations with whole numbers, fractions, decimals, and an introduction to integers. Topics in number theory, ratio and proportion, percents, and probability and statistics are included to increase students' ability to manipulate numbers in computational ways; and topics in measurement, geometry, perimeters, areas, volumes, and probability are included to demonstrate the application of mathematics to real life situations.

Major Instructional Activities: Instructional activities will begin with a review of number sets and proceed to the use of symbols to represent numbers and abstract ideas. Step-by-step models and algorithms will be used in performing basic operations and computations, Problem-solving strategies will include recognizing patterns, choosing the correct operation, making a drawing, estimating answers, and solving multi-step problems. Students will participate in activities in numerical computation, measurement, estimation, problem solving, and possibly in activities that involve calculator use and computers.

Major Evaluative Techniques: Students will be required to successfully complete numerical computations and measurements. Written-tests will be administered to evaluate these skills at several intervals during the course, including at the end of units, chapters, semesters, and at the completion of the course. Positive participation in class activities should be noted.

Essential Objectives: Upon completion of the mathematics 7 course, students should be able to:

- Perform the four basic operations with whole numbers, decimals, and fractions.
- Solve word problems with information displayed in tables, graphs, and charts.
- Formulate word problems involving multi-step operations.
- Convert fractions to decimals and percents.
- Solve problems involving percents.
- Make or draw a model to a scale.
- Solve problems in measurement to include perimeters, areas, and volumes.
- Identify pairs of angles having special relationships: supplementary, complementary, vertical, and adjacent.
- Identify mean, mode, median, and range to describe data.

Last Revised: March 13th, 2009 at 11:02 am.