

**Rationale**

The need to understand and be able to use mathematics in everyday life and in the workplace has never been greater and will continue to increase. The underpinnings of everyday life are increasingly mathematical and technological. Just as the level of mathematics needed for intelligent citizenship has increased, so too has the level of mathematical thinking and problem solving needed in the workplace. Those who understand and can do mathematics will have significantly enhanced the opportunities and options for shaping their futures. Mathematical competence opens doors to productive futures.

**Course Description**

This course is designed to prepare the student for further mathematical study by enhancing some previously learned mathematical processes and developing new processes. The student will learn to apply these processes using mathematical reasoning and technology to solve everyday problems that have meaning beyond the classroom. This course gives the student the opportunity to strengthen skills using the basic operations of addition, subtraction, multiplication and division of whole numbers, decimals and fractions. Measurement and graphing are also covered. In this support model, the student's IEP goals are addressed in the classroom while following the Mehlville curriculum. Lectures, presentations, assignments, and materials are adapted to create opportunities for student success.

**Prerequisites**

Prerequisite: IEP team recommendation

Open to: 9, 10, 11, 12

Credit: 1 Unit - Two Semesters (Mathematics)

**Course Objectives**

1. The student will understand measurable attributes of objects and the units, systems and processes of measurement with 80% accuracy as assessed by classroom assignments, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA2, 5; 1.6, 1.7, 3.1, 3.2)
  - A. Identify and justify the unit of measure for area (customary and metric)
  - B. Identify the equivalent weights and equivalent capacities within a system of measurement.
  - C. Solve problems involving elapsed time (hours and minutes)
  - D. Solve problems involving addition and subtraction of time (hours, minutes and seconds)
2. The student will apply appropriate techniques, tools and formulas to determine measurements with 80% accuracy as assessed by classroom assignments, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA2, 5; 1.6, 1.7)
  - A. Select and use benchmarks to estimate measurements (linear, capacity, weight)
  - B. Analyze precision and accuracy in measurement situations and determine number of significant digits
3. The student will formulate questions that can be addressed with data and collect, organize and display relevant data to answer them with 80% accuracy as assessed by classroom assignments, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA3; 1.8) (A+: Writing)
  - A. Select, create and use appropriate graphical representation of data, including circle graphs, histograms
4. The student will select and use appropriate statistical methods to analyze data with 80% accuracy as assessed by classroom assignments, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA3; 3.2) (A+: Research)
  - A. Find the range and measures of center, including median, mode and mean
5. The student will develop and evaluate inferences and predictions that are based on data with 80% accuracy as assessed by class work, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA3; 3.5) (A+: Reading)
  - A. Given a set of data make and justify predictions

## Math II Foundations

Mehlville School District

Special Education

Grades 9 - 12, Duration 1 Year, 1 Credit

6. The student will demonstrate the ability to use technology with 80% accuracy as assessed by classroom assignments and tests. Locally assessed. (GLE: MA9-12, MA3; 1.4, 2.7)

A. Apply operations to real numbers using mental computation or paper and pencil calculations for simple cases and technology for more complicated cases

7. The student will compute fluently and make reasonable estimates with 80% accuracy as assessed by classroom assignments, homework, projects and tests. Locally assessed. (GLE: MA9-12, MA1; 3.1, 3.2) (A+: Speaking)

A. Apply all operations on rational numbers

B. Judge the reasonableness of numerical computations and their results.

BOE 7-30-09