

COURSE OUTLINE

**Adult Basic and Secondary Education 20
Basic Math**

Catalog Statement

ABSE 20 is a math course designed for adults who wish to review or master basic arithmetic from whole number operations through fractions, decimals, and percent.

Total Lecture Units: 0.0

Total Laboratory Units: 0.0

Total Course Units: 0.0

Total Lecture Hours: 0.0

Total Laboratory Hours: 120.0

Total Laboratory Hours To Be Arranged: 0.0

Total Faculty Contact Hours: 120.0

Total Student Contact Hours: 120.0

Recommended preparation: ESL 40 or equivalent

Note: This is a self-paced course in an open-entry, open-exit lab environment.

Course Entry Expectations

Prior to enrolling in the course, the student should be able to:

- demonstrate mastery of grammatical structures studied at a level sufficient to pass unit tests and the divisional grammar mastery test for ESL level 4 or equivalent;
- decode reading passages at the 3,000-word level, identify main ideas and supporting details, make inferences, and summarize short passages.

Course Exit Standards

Upon successful completion of the required coursework, the student will be able to:

- compute problems dealing with whole numbers, fractions, decimals, and percent.
- estimate a reasonable answer to a problem.
- solve word problems involving whole numbers, fractions, decimals, and percent.
- solve multiple-step problems involving whole numbers, fractions, decimals, and percent.

Course Content

Whole numbers (20 hours)

Computation

Addition

Subtraction

Multiplication

Division

Total Faculty Contact Hours = 120.0

Estimation
Word problems
Fractions **(40 hours)**
Meaning, renaming, and reducing
Common denominators and LCD
Computation
Addition (like and unlike denominators)
Subtraction (like and unlike denominators)
Multiplication
Division
Mixed numbers
Renaming
Regrouping
Addition (with and without renaming)
Subtraction (with and without regrouping)
Multiplication
Division
Estimation
Word problems
Decimals **(30 hours)**
Meaning
Computation
Addition
Subtraction
Multiplication
Division
Estimation
Word problems
Percent **(30 hours)**
Meaning
Whole, part, percent
Computation
Word problems

Methods of Instruction

The following methods of instruction may be used in this course:

- independent study using worksheets and texts;
- computer-aided instruction;
- small group instruction;
- video instruction.

Out of Class Assignments

The following out of class assignments may be used in this course:

Not Applicable

Methods of Evaluation

The following methods of evaluation may be used in this course:

- completion of individualized contract;
- unit tests.

Textbooks

Breakthrough to Math Book Level 1. Syracuse: New Readers PPress, 2012. Print.
6th Grade Textbook Reading Level. ISBN: 978-1-56420-966-5

Breakthrough to Math Book Level 2. Syracuse: New Reader P, 2012. Print.
6th Grade Reading Level. ISBN: 978-1-56420-975-7

Hoyt, Cathy F. *Math Sense 2 Focus on Operations.* Syracuse: New Reader P, 2015.
Print.
6th Grade Textbook Reading Level. ISBN: 978-1-56420-691-6

Student Learning Outcomes

Upon successful completion of the required coursework, the student will be able to:

- estimate a reasonable answer to an arithmetic problem;
- solve word problems involving whole numbers, fractions, decimals and percent;
- solve multiple-step problems involving whole numbers, fraction, decimals and percent.