Northwest Arkansas Community College

(Science and Mathematics Division)

Discipline Code
MATH

Course Number
0012

Course Title
Foundations of Quantitative Reasoning

Catalog Description
(F, S, SUM) This is a corequisite course for those students who do not meet the prerequisite for MATH 1313. Topics include foundational math topics not already included in MATH 1313. This course can only be taken concurrently with MATH 1313 and cannot be taken alone. Co-requisite: MATH 1313

Prerequisites
Co-requisite- MATH 1313 Quantitative Reasoning

Credit Hours
2 credit hours

Contact hours
2 contact hours

Load hours
2 load hours

Semesters Offered
Fall, Spring & Summer

ACTS Equivalent
N/A

Grade Mode
A-F

Learning Outcomes
Upon Successful completion of this course students should exhibit mastery of certain knowledge and basic skills. These skills include, but are not limited to:

1. The student will perform calculations with fractions, decimals, and percents.
2. The student will analyze algebraic expressions with real numbers.
3. The student will solve linear equations using addition and multiplication.

4. The student will read and interpret graphs
5. The student will use ratios and proportions.
6. The student will analyze exponential expressions and equations.
7. The student will use geometry and measurement to solve problems.

General Education Outcomes Supported

- Students can achieve mathematical literacy.

Standard Practices

Topics list

1) Real Numbers & Algebraic Expressions
2) Pre-algebra
3) Linear Equations & Inequalities
4) Graphing Linear Equations in 2 variables
5) Ratios & Proportions
6) Exponential & Logarithmic Functions
7) Geometry Review

Learning activities

- The content of this course will integrate with the content being delivered in MATH 1313 Quantitative Reasoning.

Assessments

Each instructor must include a set of 6 departmental final exam questions on his or her final exam. These questions will be in direct support of the specific Course Outcomes and will be based on material covered in the Required Text Coverage section, and be similar to questions on the Department Review Sheet for Quantitative Reasoning. The questions will be graded using a departmental grading rubric utilizing a 10-point scale per question. The results of these questions and overall student performance will be reported when final grades are turned in. Please note that the only resource other than a calculator allowed for use by students during the final exam will be departmental formula sheet. It is also a departmental policy that no TI-89 or TI-92 or comparable calculators be allowed for use during the final exam.

Grading guidelines

- At least 70% of the student's final course grade should come from proctored work.