

Northwest Arkansas Community College
Division of Science and Mathematics

Discipline Code

MATH

Course Number

1313

Course Title

Quantitative Reasoning (ACTS Equivalency MATH 1113)

Catalog Description

This course develops reasoning skills using quantitative information and the effective use of mathematical tools and models as productive citizens and employees in our contemporary data-rich and technology-dependent society. Topics are selected from finance, statistics and probability, functions and modeling, and quantities and measurement.

Prerequisites

Co-requisite- MATH 0012 or Prerequisite-MATH 0053 with a grade of C or better, or MATH 0063 with a grade of C13 or better, or ACT 19, or appropriate placement scores (See Placement Chart)

Credit Hours

3 credit hours

Contact Hours

3

Load Hours

3

Target Audience/Transferability

Quantitative Reasoning is designed to meet the general education requirement of students who are in non-stem degree plans and degrees not requiring college algebra.

Student 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 analyze information using elements of logic.
2. The student will solve problems using quantities, measurement, and geometry.
3. The student will apply concepts of percentages, personal finance and state and national finance in real life contexts.
4. The student will interpret and create statistical tables and graphs.

5. The student will calculate and assess measures of central tendency and dispersion.
6. The student will use probability to analyze real life events.
7. The student will apply linear and exponential modeling to natural processes.
8. The student will analyze current resources and complete real-world applications and projects using skills learned in outcomes 1-7 and communicate the results.

Forms of Assessment

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 the questions on the Departmental Review Sheet for Quantitative Reasoning. These questions should be evenly weighted on the final and should compose at least 10% of the students' overall grade in the course. 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 a 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.***