

NorthWest Arkansas Community College
Division of Science and Mathematics

Course Number and Title

MATH 0103 Intermediate Algebra

Catalog Description

This developmental algebra course covers factoring, exponential, radical, and rational expressions; quadratic, radical, rational equations and compound inequalities; further study of functions and graphs, including quadratic and other basic functions; and interwoven relevant problem solving.

Prerequisites

Beginning Algebra (MATH 0053) with a C or better, appropriate module completion in Algebra I (MATH 0063), or appropriate placement scores.

Credit hours/Contact hours/Load hours

3 credit hours/3 contact hours/3 load hours, none counting toward any degree requirements

Target Audience/Transferability

This course is intended for college students who have had considerable algebra instruction, and for those students needing a review of high school algebra concepts to strengthen skill in preparation for College Algebra. Intermediate Algebra is a non-transfer course.

Student Learning Outcomes

A student successfully completing Intermediate Algebra, MATH 0103, should be able to do the following, incorporating technology where applicable:

- 1) Solve and graph linear equations and inequalities.
- 2) Factor polynomials in one variable.
- 3) Recognize functionality; find domain and range of a relation, evaluate a function, and graph basic functions.
- 4) Solve quadratic, rational, and radical equations.
- 5) Simplify exponential, rational, and radical expressions.
- 6) Solve linear, rational, radical, and quadratic applications using algebraic process.

Topics

1. Factored polynomials
2. Quadratic equations with a variety of methods used to find solutions
3. Graphs of quadratic functions
4. Function concepts including domain, range, and evaluation
5. Radical and rational expressions
6. Rules of exponents
7. Rational, and radical equations
8. Applications of the topics covered above, and
9. Appropriate graphing calculator use.

Forms of Assessment

Each instructor will include a set of departmental final exam questions on their final exam. These questions will be in direct support of the Student Learning Outcomes. The questions will be graded

according to a standard grading rubric. The results of these questions and overall student performance will be reported when final grades are turned in.

Fall 2019