

Northwest Arkansas Community College  
Division of Science and Mathematics

## Course Number and Title

MTCM 1003 Communication and Math for Workforce Readiness

## Catalog Description

MTCM 1003 Communication and Math for Workforce Readiness. MTCM is a unique course designed to meet the needs of students in certificate programs for technical careers as well as those students seeking to fulfill developmental math requirements to attain a degree. The course will cover 1) review of basic arithmetic skills such as ratios, proportions, percents, and metric conversions 2) solving linear equations and inequalities, graphing lines, slope, function concepts including domain and range, function notation, and evaluating functions, exponential properties, polynomial operations, and interwoven problem solving. 3) MTCM 1003 contains a job search component and an EMPACTS project. This is a very application oriented course. The course includes a portion of the curriculum modules in MATH 1003. Completion of MTCM 1003 and subsequent completion of MATH 1001 will allow for substitute credit for MATH 1003 Survey of Technical Math for AAS General Education.

## Credit hours

3

## Contact hours

3.83 hours per week

## Prerequisites

MATH 0013 Pre-Algebra with C or better or MATH 0023 Developmental Math with appropriate module completion, or appropriate placement scores. Students without the appropriate prerequisite will be required to register for Math 0011 during the same semester they take MTCM.

## Courses for which MTCM 1003 is a prerequisite

Completion of MTCM 1003 and subsequent completion of MATH 1001 will allow for substitute credit for MATH 1003 Survey of Technical Math for AAS General Education. While MTCM 1003 can be used as a prerequisite for MATH 0103 (Intermediate Algebra), it is highly recommended that students take MATH 0214 (Foundations of Algebra for Stem) in order to meet an Intermediate Algebra requirement.

## Target Audience and Transfer

This course is intended for college students who have had little Algebra, or for those students needing a review of elementary algebra concepts to strengthen skills in preparation for specialized Technical Math study. This class is required for most 1-year technical certificates and 2-year technical degrees. This class will not transfer to a university.

## Learning Outcomes

A student passing MTCM 1003 will be expected to demonstrate proficiency in the following areas:

1. Using basic arithmetic skills such as ratios, proportions, percents, and unit conversions,
2. Solving linear equations and inequalities,
3. Graphing lines, understanding and using slope, solving linear systems of equations and inequalities,
4. Using function concepts including domain and range, function notation, and evaluating functions,
5. Learning and using properties of exponents,

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6. Operating on  $n$ th roots,
7. Understanding and operating on polynomials.
8. Solving application problems.

**MTCM 1003 also contains job skills components**

Students will be expected to:

- 1) Write about how math is used in their career areas of interest,
- 2) Learn skills designed to help them be hired for and keep a job, such as: organizational skills, time management, professional image, the job search process, interviewing, writing, presentation creation and delivery, and problem-based, collaborative learning. This is a very application oriented course in which graded products will be created.