

COURSE INFORMATION

COURSE PREFIX/NO: MAT 032
COURSE TITLE: Developmental Mathematics
LEC HRS/WEEK: 3.0
LAB HRS/WEEK: 0.0
CREDIT HRS/SEMESTER: 0.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

Course Description

Developmental Mathematics includes a review of arithmetic skills, and focuses on the study of measurement and geometry, basic algebra concepts, and data analysis. Application skills are emphasized.

Course Competencies

Module 1: Numbers and Operations – Understand numbers, ways of representing numbers, relationships among numbers, and number systems

1. Compare and order whole numbers, fractions, decimals, and percents efficiently and find their approximate location on a number line.
2. Work flexibly with whole numbers, fractions, decimals and percents to solve problems.
3. Use ratios and proportions to represent quantitative relationships.
4. Use factors, multiples, prime factorization, and relatively prime numbers to solve problems.
5. Develop meaning for integers and represent and compare quantities with them.

Module 2: Numbers and Operations – Understand meanings of operations and how they relate to one another.

1. Explain the meaning and effects of arithmetic operations with fractions, decimals and integers.
2. Use the associative and commutative properties of addition and multiplication and the distributive property of multiplication over addition to simplify computations.

Module 3: Numbers and Operations – Compute fluently and make reasonable estimates.

1. Select appropriate methods and tools for computing with rational numbers from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods.
2. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.
3. Develop and use strategies to estimate the results of rational number computations and judge the reasonableness of the results.
4. Develop, analyze, and explain methods for solving problems involving proportions.

Module 4: Algebra Concepts

1. Identify and analyze patterns, relations, and functions.
2. Represent and analyze mathematical situations and structures using algebraic symbols.
2. Use mathematical models to represent and understand quantitative relationships.

Module 5: Measurement & Geometry

1. Identify and analyze relationships among angles, side lengths, perimeters, areas, and volumes.
2. Identify measurable attributes of objects and the units, systems, and processes of measurement.
3. Apply appropriate techniques, tools, and formulas to determine measurements.

Module 6: Data Analysis

1. Select and use appropriate statistical methods to analyze data.
2. Read and interpret tables and graphs such as line, bar graph, circle, and pictograph.

Minimal Standards

A grade average of “**SC**” (70 percent or greater) is required to enter MAT 150. A student who scores lower than 70 percent must remain in the course.

Course Requirements

In addition to the following requirements, each instructor may provide specific guidelines concerning his/her expectations.

Attendance: Students are responsible for attending all scheduled class meetings and for all material covered and all assignments. Any student who is not in attendance the required 80 percent of the scheduled class and lab time will be withdrawn. Absences are counted from the first scheduled class.

At the discretion of the instructor, three tardies may count as one absence.

Withdrawal from class:

- Withdrawal before midterm = grade of “W.”
- Withdrawal after midterm because of attendance violations or grades = grade of “U.”

(A student who withdraws after midterm with a valid reason may receive a “W” at the discretion of the instructor.)

Academic Integrity: Academic dishonesty includes using another’s work without giving credit to the source and cheating of any type. “Any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action” (*York Technical College Handbook and Catalog*).

Evaluation Strategies/Grading:

Grades are assigned to students as follows:

Tests and/or Graded Material (Each module counts 10%)	= 60%
Homework and/or Midterm	= 10%
Final Exam	= 30%

Testing policy: Students should be present to take all tests on the assigned day noted on the course calendar. If a student misses any one of the unit tests, a MAKE-UP Test may be taken within one week after the date of the missed test. The comprehensive exam is required and will cover all chapters; however, a make-up test is not available for the comprehensive exam.

Grades Explained

- 1 SC - Satisfactory Completion – does not affect GPR calculations; earns credit hours or CEU's; generates no points. Indicates satisfactory completion and a grade average of 70 or better in the course.
- 2 S - Satisfactory – does not affect GPR calculations; earns credit hours or CEU's; generates no grade points. Indicates satisfactory progress on assignments and evaluations in class and a score of 61-69 in the course.
- 3 U - Unsatisfactory – does not affect GPR calculations; earns no credit hours or CEU's; generates no grade points. Indicates unsatisfactory grades on assignments and evaluations in class and a score of 60 or below in the course.

Entry-level requirements: Appropriate placement test scores

Prerequisites: None

Co-requisites: None