

COURSE PREFIX/NUMBER:    **MAT 101**  
COURSE TITLE:            **Beginning Algebra**  
LEC HOURS/WEEK:        3.0  
LAB HOURS/WEEK:        0.0  
CREDIT HOURS/SEMESTER:  3.0

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

## **COURSE DESCRIPTION**

This course includes the study of rational numbers and their applications, operations with algebraic expressions, linear equations and applications, linear inequalities, graphs of linear equations, operations with exponents and polynomials, and factoring.

## **COURSE COMPETENCIES**

### **Module 1: Real Numbers and Variable Expressions**

- Perform indicated operations on real numbers.
- Evaluate numerical expressions.
- Simplify algebraic expressions.
- Evaluate algebraic expressions.
- Translate verbal expressions into variable expressions.

### **Module 2: Solving Equations and Inequalities**

- Solve linear equations and inequalities.
- Solve applied problems involving linear equations.
- Solve applied problems involving linear inequalities.

### **Module 3: Linear Functions and Inequalities in Two Variables**

- Find the length and midpoint of a line segment.
- Determine the domain and range of a relation.
- Determine whether a relation is a function.
- Evaluate functions.
- Graph a function on a calculator.
- Determine intercepts of lines.
- Determine slopes of lines.
- Sketch lines.
- Determine equations of lines.
- Graph an inequality in two variables.

### **Module 4: Polynomials**

- Simplify expressions using rules for exponents.
- Write numbers in decimal and scientific notation.
- Perform calculations using scientific notation.
- Add, subtract, multiply, and divide polynomials.

## **Module 5: Factoring**

- Factor a monomial from a polynomial.
- Factor by grouping.
- Factor trinomials.
- Factor the difference of two squares, perfect square trinomials, and the sum and difference of two cubes.
- Solve equations by factoring.

## **ACADEMIC INTEGRITY**

Students are bound by the policies stated in the York Technical College Catalog and Handbook. A student violating these policies will be subject to academic discipline.

## **MINIMAL STANDARDS**

An average of 60% is required for a grade of D for this course. Some departments require a grade of C (a minimum 70% average) for this course.

## **EVALUATION STRATEGIES/GRADING**

The final course grade will be determined by a student's performance on the five modules and a final examination. Each module grade may be comprised of objective and/or essay-type questions, homework, individual or group projects, quizzes, etc., as required by the instructor. Each module will be evaluated as 16% of the final grade. The final exam will be evaluated as 20% of the final grade.

### **Grading Scale**

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	Below 60

## **COURSE REQUIREMENTS**

See the York Technical College Catalog and Handbook for attendance, withdrawal, and student conduct policies.

## **ENTRY LEVEL SKILLS**

The student entering this course must be competent to perform the following tasks:

1. Add, subtract, multiply, and divide signed numbers.
2. Solve simple linear equations.
3. Use laws of exponents to simplify expressions.
4. Evaluate formulas.
5. Plot points on a coordinate grid.

**PREREQUISITES:** MAT 150 or equivalent

**CO-REQUISITES:** None

**Disabilities Statement:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.