COURSE INFORMATION

Course Prefix/Number: MAT 101
Course Title: Beginning Algebra
Lecture Hours/Week: 3.0
Lab Hours/Week: 0.0
Credit Hours/Semester: 3.0

VA Statement/Distance Learning Attendance
Textbook Information
Student Code and Grievance Policy
Attendance Statement (3-30-4000.1)

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

Upon successful completion of this course, the student should be able to demonstrate basic knowledge of the following:

Module 1: Solving Equations and Inequalities
- Classify numbers.
- Identify and use real number properties.
- Simplify rational expressions.
- Simplify and evaluate algebraic expressions.
- Determine absolute values.
- Solve linear equations and inequalities.
- Solve literal equations.
- Translate verbal equations into variable equations.
- Solve applied problems involving linear equations and linear inequalities.

Module 2: Linear Functions 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.
- Determine intercepts and slopes of lines, and sketch lines.
- Determine equations of lines.
- Identify whether lines are parallel, perpendicular, or neither.
Module 3: Systems of Equations
- Solve systems of equations by graphing, substitution, and addition methods.
- Solve application problems using systems of equations.

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.
- Solve applications.

METHODS OF INSTRUCTION
Principles will be introduced by the instructors through lecture, presentation, technology and computer-based training. Additional methods designed for remediation or enrichment will be individually tailored as needed.

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.

COURSE REQUIREMENTS

Academic Integrity
The policies stated in the York Technical College Handbook will be enforced. Any student violating these policies will be subject to academic discipline.

GRADING PROCEDURES
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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
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<tr>
<td>B</td>
<td>80 - 89</td>
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<tr>
<td>C</td>
<td>70 - 79</td>
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<tr>
<td>D</td>
<td>60 - 69</td>
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<tr>
<td>F</td>
<td>Below 60</td>
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ENTRY LEVEL SKILLS

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

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

PREREQUISITES

MAT 032 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 Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.