

Naugatuck Valley Community College
STEM Division
Science, Technology, Engineering and Mathematics

Common Course Syllabus
Elementary Algebra MAT*H095

COURSE TITLE: Elementary Algebra Foundations, MAT*H095

COURSE DESCRIPTION: The course begins with a brief review of basic computational skills and operations with signed numbers. Algebraic order of operations and evaluation and simplification of algebraic expressions is followed by techniques for solving first degree equations and inequalities in one unknown. Also included in this course are algebraic methods for solving applications involving one and two unknowns. Basic rules of exponents are presented and scientific notation is discussed. This is followed by the basic polynomial operations and graphing linear equations in two unknowns, finding slopes of lines, x - and y -intercepts, and writing equations of lines.

NUMBER OF CREDITS: 3 credit hours. This course will not fulfill a mathematics requirement in any degree program.

PREREQUISITE: Grade of "C" or better in MAT*H073 or MAT*H075 (Prealgebra) or an appropriate score on a college placement exam.

TECHNOLOGY: Computer component required; TI-83 (Plus) or TI-84 (Plus) or online graphing utility required.

COURSE OBJECTIVES:

1. Develop a good understanding of the language and symbolism of basic algebra.
2. Acquire an understanding of the properties underlying the structure of algebra.
3. Develop the ability to extend basic algebra concepts to more sophisticated courses.
4. Use algebra to model real world situations.

LEARNING OUTCOMES: At the end of this course the student will be able to do the following:

- A. Simplifying Algebraic Expressions —
 - Simplify algebraic expressions involving grouping symbols.
 - Apply the rules for combining like terms.
- B. Solution of First Degree Linear Equations and Inequalities —
 - Choose the appropriate "inverse operation" technique in solving all basic types, including literal equations.
 - Solve and check solutions to these equations.
 - Solve systems of linear equations algebraically, by addition and substitution methods.
- C. Applications —
 - Use algebraic methods in setting up, solving and checking applications.

D. Exponents —

- Apply basic rules for integer exponents.
- Work with numbers written in scientific notation.

E. Polynomials —

- Identify a polynomial.
- Perform the basic polynomial operations of addition, subtraction, multiplication, and division.
- Factor out the GCF.

F. Graphing —

- Graph a linear equation or inequality in two unknowns on the rectangular coordinate system.
- Find the x - and y -intercepts of a line algebraically and graphically.
- Graph horizontal and vertical lines.
- Rewrite linear equations in slope-intercept form.
- Identify the slope and y -intercept of a line.
- Graph equations using the slope and y -intercept.
- Determine when two lines are parallel or perpendicular.
- Solve systems of two linear equations graphically.

GRADING SYSTEM: For the purpose of computing numerical credit point averages, grades are evaluated as follows for each semester hour of credit. Grades on exams, papers, and quizzes, will be based on this grading system.

Numeric Grade	Acceptable Letter Grade Range to be used by the instructor	Description
90 – 100	A– to A	Excellent
80 – 89	B–, B, B+	Above Average
70 – 79	C–, C, C+	Average
60 – 69	D–, D, D+	Below Average
Below 60	F	Failing

CLASS CANCELLATION PROCEDURE: *If the instructor is late, the class is expected to wait 15 minutes before leaving or until informed of a cancellation by a college official. Information on weather related closings/late openings concerning Naugatuck Valley Community College can be obtained through local radio and television stations, or via the college website (<http://www.nvcc.comnet.edu>). NOTE: An alternative assignment may be given if classes are canceled due to weather.*

ACADEMIC HONESTY STATEMENT: *At NVCC we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Board of Trustee's Proscribed Conduct Policy in Section 5.2.1 of the BOT Policy Manual. This policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism, and other proscribed activities. Plagiarism is defined as the use of another's idea(s) or phrase(s) and representing that/those idea(s) as your own, either intentionally or unintentionally. Anyone who is caught cheating on exams, plagiarizing another's work or published material will fail the course regardless of progress made in the course.*

CHILDREN ON CAMPUS: *With permission of the instructor only – Children must be attended at all times by a responsible adult. The student must notify the instructor or supervisor prior to the beginning of the class or activity that a child is present. Instructors and/or supervisors are authorized to ask the student or program participants to leave should the presence of a child be disruptive.*

CELL PHONE/PAGER USE POLICY: *Students are hereby notified that cellular phones and beepers are allowed in class only if they are turned off or turned to a silent mode. Under no circumstances are telephones to be answered in class. Students who ignore this policy may be asked to leave class. When there are extenuating circumstances that require that a student be available by phone or beeper, the student should speak to the instructor prior to class, so that together they can arrive at an agreement concerning the device.*

STUDENTS WITH SPECIAL NEEDS: *Students who may require accommodations on the basis of a learning disability are encouraged to contact the Coordinator of Learning Disabilities. Students who may require accommodations on the basis of all other disabilities should contact the Coordinator of Disability Services. After providing documentation and completing the disability disclosure process, students are then encouraged to meet with their instructor(s) to discuss the accommodations approved by the appropriate Coordinator and to complete the Accommodations Agreement form. Accommodations are not retroactive, students are therefore encouraged to meet with their instructor(s) at the beginning of each semester. Instructors, in conjunction with appropriate college personnel, will provide assistance and/or accommodations only to those students who have completed the disability disclosure and accommodations process.*

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