

18. COURSE: MATHEMATICS 101: College Algebra

COURSE DESCRIPTION: Includes topics such as operations with real and complex numbers, graphing first and second degree equations, solutions of equations (linear, quadratic and logarithmic). Portrays algebra as a logical extension of arithmetical processes and as a powerful tool for analyzing relationships in the natural and social sciences. *Prerequisite: Mathematics 100 or equivalent*

RECOMMENDED TEXT: Robert Blitzer, College Algebra, 3rd Edition. Prentice Hall College Division. ISBN: 0130731374

GRADING: Students must receive a “C” (73-76) in order to receive credit for a course taken as a Challenge Exam.

FORMAT: Fifty problems worth 2 points each (partial credit is allowed). A scientific calculator will is required.

TOPICS:

- Solving linear equations for unknown solving composition of functions.
- Solving simple log and exponential functions.
- Performing simplifications on exponents and powers of ten.
- Factoring and utilizing the zero factors rule. plotting simple quadratics functions.
- Using the foil method to solve the roots of an equation.
- Solving simple quadratics by factoring and utilizing the quadratic equations.
- Solving the system of equations for 2 variables.
- Defining and performing problems with complex number.
- Solving simple word problems relating to linear equations.