

MTH 111 : COLLEGE ALGEBRA

Transcript title

College Algebra

Credits

4

Grading mode

Standard letter grades

Total contact hours

40

Lecture hours

40

Recommended preparation

MTH 095 or minimum placement Math Level 18.

Course Description

Introduces graphs and functions (linear, quadratic, polynomial, rational, exponential and logarithmic) using a graphing calculator. First term of a precalculus sequence for science students. Graphing calculator required. TI-83 or TI-84 recommended.

Course learning outcomes

1. Students will model and solve applied, real-world, and theoretical mathematical problems requiring the solution of linear, quadratic, polynomial, rational, exponential, and logarithmic functions.
2. Students will use a graphing calculator to create appropriate graphs that represent mathematical models, determine appropriate viewing windows and accurately interpret and draw inferences regarding the meaning, implications and limitations of the graphs.
3. Students will examine a variety of relationships stated in symbolic, graphical, or tabular form and determine which represent functions; determine what the domain and range of functions are; and draw inferences regarding the meaning, implications and limitations of the given representation of the function.
4. Students will modify and combine algebraic and graphical representations of functions and describe the relationship between the methods and functional representations.
5. Students will investigate and solve one-variable non-linear inequalities by coordinate graphing and algebraic means and explain the relation between the methods and solutions.

General education/Related instruction lists

- Science not Lab
- Mathematics