MATH 120 : College Algebra

This course includes studying and applying functions including Polynomial, Rational, Exponential, Logarithmic, Logistic, Trigonometric, Parametric, and Inverse functions. Applications of systems of equations, inequalities, and matrices will also be covered. This course focuses on the importance of thinking, problem-solving, and application. It requires that students solve real problems using technological tools.

Credits 3

Prerequisites

Appropriate Scores on Placement test

Course Outcomes

After successfully completing the course, the learner will be able to:

- Solve a variety of algebraic equations including polynomial, exponential, logarithmic equations;
- Solve application problems using exponential and logarithmic forms;
- Manipulate a variety of algebraic expressions including polynomial, exponential, logarithmic expressions;
- Manipulate functional notation;
- Graph functions using translations, symmetries, etc.;
- Apply the fundamental concepts of probability;
- Solve right-triangle trigonometric equations and application problems;
- Apply the binomial theorem and expansion.
- Student will be able to evaluate and understand tables of data, charts, and graphs using appropriate technology.
- Student will understand the differences between linear and non-linear relationships and their use in real-life situations.
- Student will be able to model and explain real-life situations using mathematics and appropriate technology.
- To examine the concepts of College Algebra in terms of their real-life application.
- To enable the student to solve various types of statement problems.
- To develop a real world mathematical modeling project.
- Use the library, Spreadsheets, Word processor, Internet, or other college resources to gather data, write paper, draw a conclusion, supply sources of information, and give an oral presentation.
- To provide the student with mathematical background needed for other courses in the natural, social and life sciences.

Competency

Quantitative Reasoning