MAT 115 – Elementary Functions

**Catalog description:** (A) Polynomial and rational functions, exponential and logarithmic functions, trigonometric functions, and applications. Prerequisite: MAT 111 or three units of Regents high school mathematics. Fulfills GE 1; LASR. Notes: Not open to students with credit for any calculus course. (3 cr. hr.)

**Goals/Objectives**

To prepare students for calculus.

**Topics**

- Functions: graphs, properties of graphs, domain and range, odd and even, arithmetic of functions, composites, finding inverses graphically and algebraically, one-to-one functions
- Linear functions
- Quadratic functions
- Polynomial functions: graphing, finding real and complex zeros
- Rational functions
- Exponential and logarithmic functions
- Solving exponential and logarithmic equations
- Trigonometric functions

**A Note to the Instructor:**

The primary focus of this class is to provide students with the skills necessary to succeed in calculus. Enough time should be allotted to each topic. If time permits, applications of the various functions can be discussed.