MTH 113-Topics in Precalculus

Course description:

MTH 113 is a course designed to examine in detail topics chosen from the applied, real-world, and theoretical mathematical implications of analytic geometry, nonrectangular coordinate systems, vectors, and matrices. The symbolic, numerical, graphical and narrative representations of functions and their applications form the core of the course. Emphasis will be on solving problems symbolically, numerically and graphically and understanding the connections among these methods in interpreting and analyzing results. The primary focus is preparation for Calculus.

MTH 113 has the competencies from MTH 112 (Trigonometry) as prerequisites. A graphing calculator is required. Enrollment in a Computer Based Homework system may be required. The course is college-transferable. MTH 113 is a 4 credit hour (quarter system) course.

Course outcomes

- ✓ model and solve problems involving vectors in two dimensions both algebraically and graphically and understand the relationship between the methods and solutions

- ✓ model and solve applied, real-world, and theoretical mathematical problems involving conic sections, parametric and polar coordinate systems, and matrices

- ✓ model and solve problems using symbolic, graphic and numeric strategies and translate among written descriptions, symbolic, graphic and numeric representations of conic sections and other functions in parametric and polar coordinate systems

- ✓ apply matrix methods to solve systems of equations and their applications

- ✓ model and solve problems involving vectors in two dimensions both algebraically and graphically and understand the relationship between the methods and solutions