

MTH 113 : TOPICS IN PRECALCULUS

Transcript title

Topics in Precalculus

Credits

4

Grade mode

Standard letter grades

Contact hours total

40

Lecture hours

40

Recommended preparation

MTH 112.

Description

Examines topics chosen from the applied, real-world and theoretical mathematical implications of analytic geometry, nonrectangular coordinate systems, vectors, matrices and sequences. The symbolic, numerical, and graphical representations of these functions and their applications form the core of the course. Emphasizes 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. Graphing calculator required. TI-83 or TI-84 recommended.

Learning outcomes

1. Student will model and solve problems involving vectors in two dimensions both algebraically and graphically and understand the relationship between the methods and solutions.
2. Student will model and solve applied, real-world, and theoretical mathematical problems involving conic sections, parametric and polar coordinate systems, and matrices.
3. Student will 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.
4. Student will apply matrix methods to solve systems of equations and their applications.
5. Student will model and solve problems involving vectors in two dimensions both algebraically and graphically and understand the relationship between the methods and solutions.

General education/Related instruction lists

- Discipline Studies/Science No Lab
- Foundational Skills/Mathematics