



A division of St. Francis Methodist School

Curriculum Description for St. Francis Baccalaureate

Trigonometry (Mathematics 112)

Course Description:

A basic trigonometry course which includes the following topics: trigonometric functions, circular functions, identities, inverse trigonometric functions, trigonometric equations, graphs, vectors and complex numbers. Credit 3 hours.

Prerequisites:

Mathematics 110 or two years of high school algebra or departmental consent.

Outcomes:

1. Knowledge of the trigonometric and inverse trigonometric functions.
2. Acquire knowledge of identities and other properties of trigonometric functions
3. Acquire knowledge of the connections among trigonometry, vectors and complex numbers.

Objectives:

Upon successful completion of this course, students will be able to:

1. Demonstrate knowledge of the sum and difference for different trigonometric functions, double-angle, and half-angle identities.
2. Demonstrate knowledge of circular functions, graphs of sine, cosine and tangent, amplitude and period.
3. Solve problems pertaining to inverses of trigonometric functions, trigonometric equations and polar coordinates.
4. Demonstrate knowledge of vectors in coordinate plane, inner product, force, and work applications.
5. Demonstrate a general knowledge of operations on complex numbers.

Course Requirements:

Students will be evaluated based on Quizzes, Tests and Final Exam.