

COURSE NUMBER: 606
COURSE TITLE: Precalculus
COURSE LENGTH: Year, Two Credits - High School
Up to 5 credits from WITCC - MAT-129 Precalculus
PREREQUISITE: Semester 1- Achieving a grade of C- or better in second semester Math Analysis or instructor's approval
Semester 2- Achieving a grade of C- or better in first semester or instructor's approval

GRADE LEVEL: 12

COURSE DESCRIPTION:

This course presents a complete study of precalculus topics. It is intended for students who would like to be thoroughly prepared for college mathematics, review for college entrance examinations, or simply study more mathematics. Topics studied include functions, systems, graphs, polynomials, sequences, series, iteration and fractals, statistics, probability, exponential and logarithmic functions, and introduction to calculus. **This is a dual credit course in conjunction with Western Iowa Technical Community College.**

COURSE RATIONALE:

Precalculus is a course that is a must for a student going into a math or science related area. The student will have the opportunity to review and bring together, in a cohesive manner, what has been previously learned in other mathematics courses. Many of the extensions are done with the aid of calculators with graphics and statistical capabilities, for this technology have changed the ways in which people today deal with these ideas.

METHOD OF INSTRUCTION:

The class is a lecture-discussion type of course with student participation encouraged. Homework assignments will be given daily..

ASSESSMENT:

Grades will be based upon student performance on tests, quizzes, and assignments.

CRITICAL OBJECTIVES:

1. Learn to understand and appreciate the fundamental concepts of the topics studied and have the ability to apply these concepts in working practical and theoretical problems
2. Acquire knowledge from the areas of calculus, algebra, trigonometry, geometry, and statistics
3. Improve and maintain previous mathematical skills.
4. Learn to use a graphing calculator as a tool for problem solving.
5. Be prepared for future studies in mathematics.

