

Math 1 113  
PRECALCULUS  
Master Syllabus

Valdosta State University      - Mathematics Department

Math 1 113 is a 3 credit hour course.

Prerequisites:

Math 1112(Trigonometry) with a C or better or with Math Placement score.

Course Description: Identify types of functions, their domain and range, and be able to analyze these functions from a numeric, graphical, and symbolic point of view. The functions include linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric.

- 2.) Identify and find the inverse of functions.
- 3.) Use the various functions to solve application problems.
- 4.) Apply transformations to various graphs of functions

\*For additional information about your particular course including grading, textbook, assignments and tests, contact your course instructor for your syllabus.

General Outline of Topics

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1.) Graphs and Functions

- Transformations with graphs
- Composition of functions
- Inverses of functions

2.) Polynomial and Rational Functions

- Graph the Quadratic, polynomial, and rational functions
- Discuss End Behavior of functions and find the zeros.
- Variation Problems

### 3.) Exponential and Logarithm Functions

- Graph the exponential and logarithm function
- Application problems – Growth, Decay, Compound interest
- National Exponential Function
- Rules and Laws of Logarithms
- Solving exponential equations

### 4.) Trigonometric Functions

- Angles and their measure – Unit Circle & Evaluate the trig functions
- Reference angles
- Trigonometric identities