

MATH 06LA

Precalculus Study Group: An Introduction to Functions 1

Course Description

Just-in-time lessons and activities to enhance student foundations on functions and properties of functions from four perspectives (verbal, visual, numeric, and symbolic) to complement and support MATH 006A.

Prerequisites

MATH 006A, may be taken concurrently; the Mathematics Department determines the study program pathway based upon the score on the Mathematics Advisory Examination; or consent of instructor.

Textbook

Precalculus: Pathways to Calculus: A Problem Solving Approach (8th edition) by Carlson, Oehrtman, & Moore

Suggested Schedule

Class #	Textbook Section(s)	Topic(s)
1	Module 1	Practice symbolic reasoning: simplify (representational equivalence), evaluate, solve, and verify
2	Module 2	Number sense: Equivalent representations and relative size (numeric precision); Units of measure
3	Modules 2 & 3	Fluency in representing co-varying quantities: Describe co-varying quantities from different perspectives (verbal, visual, symbolic, or numeric) and navigate between these perspectives
4	Modules 2 & 3	Symbolic fluency: navigating symbolic expressions for variables, co-varying quantities, and functions; Evaluation
5	Module 3	Creating and undoing functions: Composition, transformations, and inverses
6	4.1	Number sense: portions/percentages, exponents, exponentials
7	2.5, 4.2	Describing rates of change: Numerically, visually, verbally (with meaning), and symbolically
8	4.3, 4.6	Exponential functions: Modeling, interpreting, representing
9	4+, 4.8	Logarithmic functions: Undoing exponential functions
10	Module 4	Model and solve real-world problems with exponential and logarithmic functions