

# MATH 06LB

## Precalculus Study Group: An Introduction to Functions 2

### 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 006B.

### Prerequisites

MATH 006A with a grade of C- or better, MATH 006B, may be taken concurrently; 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	2.5, 5.2	Co-variation: How a change in input of a function can affect the function's output and rates of change (increasing/decreasing/constant) differently
2	5.3, 5.4, 5.5, 5 ext 3	Power functions: varying behavior near $x = 0$ ; Generalize this to horizontal shifts of power functions
3	All	Co-variation: how output changes with tiny (and HUGE) changes of input; Limits
4	All	A picture is worth a thousand words; Move between representations of polynomial and rational functions
5	7.1, 7.2, 7.3, 7.4, 7.5	Model circular motion with the aid of a graphing tool
6	7.4, 7.5, 7.6	Applications of sine and cosine with attention to units, transformations, and evaluating
7	7.1	Applications of inverse trigonometric functions
8	1.1, 8.3	Identities
9	8.4, 8.5, 8.6	Applications involving non-right triangles
10	All	Review