

Math Refresher

Instructor: Michael Busse
Mbusse@umd.edu

Teaching Assistant: Sydney Frost
Sfrost1@umd.edu

The first class will be Wednesday, June 5th

This course introduces students to the math required for quantitative courses such as economics, statistics, and finance at the Maryland School of Public Policy. The skills necessary to thrive will include a comfort level with basic algebraic manipulations, an understanding of some differential Calculus, and more. The following topics will be covered during the summer: graphing, probability, solving systems of equations, logarithms, rules exponents, basic differentiation, the Langrangian technique, and some additional topics.

Class will be held each Tuesday from **6:00pm-8:30pm**. In all time slots, there will be ample time for students to practice problems and to ask questions in addition to being introduced to new topics. You do not need to come to all time slots; it is just a way to provide you with maximum opportunity to learn and practice the links between policy and math!

The Optional (though recommended) textbook for the class is Mathematics with Applications 9th or 10th Editions (or earlier if need be) by Lial, Hungerford, and Holcomb. *I strongly suggest buying the cheapest version of the text you can find.*

A fun book for statistics is “Naked Statistics” by Charles Wheelan. You won’t regret buying a cheap used version, but it is not necessary for this course.

Topics Summer 2025:

Date	Topic
June 3	Overview of Required Math+ the Basics
June 10	Solving Systems of Linear Equations
June 17	Graphing + Quadratic Equations
June 24	Exponents and Logs + Intro to Calculus
July 1	Micro Applications of Calculus +Utility Maximizations
July 8	Micro Applications of Calculus + Cost Minimizations
July 15	More Advanced Calculus Topics (finding mins, maxs, pts of inflection)
July 22	Probability and Stats
July 29	Probability and Stats
August 5	Probability and Stats
August 12	Probability and Stats