

Spring 2023 Math Camp

Instructor: Quang-Thanh Tran

This course reviews the basics of mathematic skills needed for Economic Analysis. We are going to review algebra, and calculus, and how to apply such knowledge in solving economic problems such as optimization. (I don't cover matrix algebra in this course).

Each session will be split into the lecture part and the exercise (problem-solving) part, with a lunch break in between. Students are expected to participate in all sessions.

Syllabus (tentative)

- [1] Review of Algebra
- [2] Solving Equations
- [3] One Variable Calculus
- [4] Application of One Variable Calculus
- [5] Chain Rule
- [6] Exponents and Log
- [7] Calculus of Several Variables
- [8] Unconstrained Optimization
- [9] Constrained Opt. I
- [10] Constrained Opt. II
- [11] Review of Integration
- [12] Economic Application
- [13] Difference Equations
- [14] Some Growth Models
- [15] Small Test

Outline

	Monday	Tuesday	Wednesday	Thursday	Friday
MARCH (2023)	6	7	8	9	10
	[1]	[2]	[3]	[4]	[5]
	13	14	15	16	17
	[7]	[8]	[9]	[10]	[11]
	20	21	22	23	
	[12]	[13]	[14]	[15]	
Class hours	Morning: 9:30 – 12:00 (problem solving)				
	Afternoon: 13:30 – 15:00 (lecture)				

Textbooks used:

- Simon, Carl P and Lawrence Blume (1994). Mathematics for economists. Norton NewYork.
- Sydsæter, Knut and Peter J Hammond (2008). Essential mathematics for economic analysis.
- Sydsæter, Knut et al. (2008). Further mathematics for economic analysis. Pearson education.