

MATHEMATICAL ECONOMICS EC 570 Section 2 (a.k.a. math boot camp) Bidgood 110 until 8/8 and 115 after that MTWHFS: 9:00 a.m. – 12 p.m. Office Hours: MTWHFS: 2 – 4 p.m.	Instructor: Paan Jindapon Office: Alston Hall 264 Phone: 348-7841 Email: pjindapo@cba.ua.edu Web: cba.ua.edu/~pjindapo
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Textbooks

- Alpha C. Chiang and Kevin Wainwright, *Fundamental Methods of Mathematical Economics*, 4th Ed, McGraw-Hill 2005.
- William S. Neilson, *Must-Have Math Tools for Graduate Study in Economics*, 2008 (unpublished-available at the author's web page)

Objectives

Students will master the basic tools in optimization and other mathematical methods commonly used in graduate economics courses.

Grading structure

Two midterm exams, 50% each, to be given on Wednesday 8/13 and Friday 8/22

Attendance policy

Attendance is strongly recommended but not required. Students are responsible for all lecture material, including all in class announcements.

ADA policy

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Disability Services at 348-4285 (202 Research Drive). After the initial arrangements are made with that office, please contact the instructor.

Plan (as of 8/14)

Date	Topics	Remark
Monday 8/4	<ul style="list-style-type: none"> • The nature of mathematical economics • Sets 	CW Ch 1-2
Tuesday 8/5	<ul style="list-style-type: none"> • Functions • Sequences and series 	CW Ch 2,10
Wednesday 8/6	<ul style="list-style-type: none"> • Continuity • Differentiation 	CW Ch 6-8
Thursday 8/7	<ul style="list-style-type: none"> • Taylor's series • One-variable optimization 	CW Ch 9
Friday 8/8	<ul style="list-style-type: none"> • Optimization with several variables 	CW Ch 11
Saturday 8/9	<ul style="list-style-type: none"> • Second-order condition • Constrained optimization 	CW Ch 11-12
Monday 8/11	<ul style="list-style-type: none"> • Second-order condition • Comparative statics 	CW Ch 12
Tuesday 8/12	<ul style="list-style-type: none"> • Envelope theorem and Duality • Inequality constraints 	CW Ch 13
Wednesday 8/13	Midterm 1	
Thursday 8/14	<ul style="list-style-type: none"> • Matrix algebra • Equilibrium analysis 	CW Ch 4-5
Friday 8/15	<ul style="list-style-type: none"> • Comparative statics • Integration 	CW Ch 7,8,14
Saturday 8/16	<ul style="list-style-type: none"> • Differential equations 	CW Ch 15
Monday 8/18	<ul style="list-style-type: none"> • Probability • Random variables 	Neilson Ch 10-11
Tuesday 8/19	<ul style="list-style-type: none"> • Expectations • Moments 	Neilson Ch 13-14
Friday 8/22	Midterm 2	