SYLLABUS

SUMMER 2017   SESSION ONE

MATH-UA.0211.001   MATHEMATICS FOR ECONOMICS

INSTRUCTOR

Liming PANG
Email: Liming@cims.nyu.edu
Office Hours: Mon. 12:30 -- 14:30
            Room 1110, Courant Institute of Mathematical Sciences, NYU

LECTURES

Time: Mon. Tue. Wed. Thu. 9:00 -- 11:05
Classroom: Room 517, Courant Institute of Mathematical Sciences, NYU

COURSE WEBSITE

http://cims.nyu.edu/~liming/MAEC.html

Lecture Notes will be uploaded to this website after each class.
You can also find Homework and Homework Solutions there.

TEXTBOOK

Essential Mathematics for Economic Analysis (**Fourth Edition**)
Knut Sydsaeter & Peter Hammond with Arne Strom
ISBN 978-0-273-76068-9

GRADING POLICY

Your course score will be determined as the following weighted average:

ITEM	WEIGHT
HOMEWORK	24%
MIDTERM	34%
FINAL	42%

HOMEWORK

Homework of each week will be divided into two parts, posting on Tuesday and Thursday respectively, and both parts will be collected during lecture on the following Tuesday. There will be 5 sets of homework in total, and the lowest grade among the 5 sets will be excluded when computing total homework grading. Please submit your homework on time. **Late homework shall not be accepted.**

EXAMS

Midterm: 9:05 -- 11:05 2017 June 08 (Thursday)
Final: 9:05 -- 11:05 2017 June 29 (Thursday)

We will not be able to accommodate out-of-sequence exams for purposes of more convenient travel, including already purchased tickets. Please note again the date of the exams and plan your travel accordingly.

If you require additional accommodations as determined by the Center for Student Disabilities, please let your instructor know as soon as possible.

TENTATIVE SCHEDULE

	Monday	Tuesday	Wednesday	Thursday
Week 1	Functions, Graphs and Inverse Functions	Increasing and Decreasing Functions. Limit and Rate of Change	Slope, Tangent and Derivatives.	Basic Differentiation
Week 2	**Memorial Day No Class**	Chain Rule, Higher-Order Derivatives	Differentiation of Exponential and Logarithmic Functions	Implicit Differentiation Inverse Differentiation
Week 3	L'Hôpital's Rule, Approximation	Elasticities	**Review**	**Midterm**
Week 4	Extreme Points, Local Max./Min.	Global Optimization Problem	Functions of Multi-Variables Partial Derivatives	Chain Rule for Multi-Variables
Week 5	Higher-order Partial Derivatives, Approximation	Level Curve and Implicit Differentiation	Extreme Points, Local Max./Min for Multi-Variables	Global Optimization Problem for Multi-Variables
Week 6	Optimization with Constrains	Applications	**Review**	**Final**

UNDERGRADUATE TUTORING CENTER

There is an Undergraduate Tutoring Center in Mathematics Department:
https://math.nyu.edu/dynamic/undergrad/tutoring/
which provides walk-in help.
If you meet with difficulties when doing exercises, besides discussing with the instructor, you may also visit the tutoring center.