

Fundamental Methods of Mathematical Economics I, ECON 3410
Department of Economics, Brooklyn College
Course Syllabus, SPRING 2016

Instructor: Thomas Hauner
TUES, THURS 9:30 – 10:45 AM
Room: Whitehead 208

Office: Whitehead 102
Office Hours: THURS 11:00 AM – 12:00 PM
Email: thauner@gradcenter.cuny.edu
Website: www.thauner.tk (Go to Teaching > Spring 2016)

Prerequisite: Economics (or Business) 2200

Suggested Text: Barnett, Ziegler, Byleen. College Mathematics for Business, Economics, Life Sciences & Social Sciences. Pearson. 12th edition.

Required “Text”: Access to MyMathLab.com, courseID: hauner64448

Students must be able to access MyMathLab.com (MML) for homework exercises, reviews, problem sets, and solutions to exercises (not just answers, like in the back of the book).

NOTE: MML access includes an eBook version of the textbook, therefore you do not need to buy book separately. MML access codes from used textbooks will generally not be valid.

Because the textbook is now an old edition, the primary means of acquiring a valid access code to MML is buying one directly.

1. **MyMathLab Student Access Kit (access code only, includes eBook access online)**
ISBN: 9780321199911

If you have trouble with a purchased access code, please try **247pearsoned.custhelp.com**, **844-292-7015**, or **@PearsonSupport** on Twitter.

Course Description:

This course will develop the mathematical tools necessary for further study in economics and finance. The specific aim is to apply algebra and differential calculus to economic analysis of stylized questions. The broader goal is to help you become more thoughtful intellectually and practice thinking. At a minimum you will practice mastering detailed-oriented, perhaps uninteresting, tasks.

Course Schedule:

The outlined schedule is tentative and subject to change.

<u>Class Dates</u>	<u>Topics</u>	<u>Required Reading</u>
Feb 2, Feb 4 Feb 9	Polynomial operations and factoring No class (Friday schedule)	Appendix A.1 – A.3
Feb 11, Feb 16 Feb 18	Ration expressions, exponents, quadratics Sequences and series (NOTE: Last day to drop without “W” grade)	Appendix A.4 – A.7 Appendix B.1
Feb 23 Feb 25, Mar 1 Mar 3	Summation Linear graphing and functions Elementary functions and transformations	Appendix B.2 Chp 1.1 – 1.3 Chp 2.1 – Chp 2.2
MAR 8	MIDTERM exam 1	
Mar 10 Mar 15, Mar 17	Quadratic, polynomial and rational functions Exponential and logarithmic functions	Chp 2.3 – Chp 2.4 Chp 2.5 – Chp 2.6
Mar 17, Mar 22 Mar 24, Mar 29 Mar 31 Apr 5	Limits, infinite limits, and continuity Derivatives and differentials Marginal Analysis Derivatives of exponential and log functions	Chp 10.1 – Chp 10.3 Chp 10.4 – Chp 10.6 Chp 10.7 Chp 11.1 – Chp 11.2
APR 7	MIDTERM exam 2	
Apr 12, Apr 14 Apr 19, Apr 21 << Apr 26, Apr 28 May 3 May 5, May 10 May 12, May 17	Product, quotient, and chain rules Implicit differentiation, related rates SPRING RECESS, NO CLASSES >> Elasticity of demand First and second derivatives, graphs L’Hôpital’s rule, absolute min/max	Chp 11.3 – Chp 11.4 Chp 11.5 – Chp 11.6 Chp 11.7 Chp 12.1 – Chp 12.2 Chp 12.3, Chp 12.5
MAY 24	FINAL exam, 8:00 – 10:00 AM	

Grading:

Attendance (2 unexcused absences allowed)	30 %
Homework (online problem sets)	30 %
Midterm exam (best of 2)	20 %
Final exam	20 %

- There will be NO makeup exams, unless under a documented extraordinary circumstance.
- There will be 2 midterm exams. The lowest midterm grade will be dropped.
- The exams are *not* explicitly cumulative, however the material is naturally cumulative.

Grading Scale:

<i>Letter Grade</i>	<i>%</i>	<i>Letter Grade</i>	<i>%</i>
A	93-100	C	73-77
A-	90-92	C-	70-72
B+	88-89	D+	68-69
B	83-87	D	63-67
B-	80-82	D-	60-62
C+	78-79	F	below 60

Homework:

Homework will be assigned weekly. All homework assignments will be online on MML and thus require a valid student access code. The course ID is "hauner64448". Any outstanding homework assignments completed after May 10 will only receive half credit.

Policies:

1. Students are expected to attend all classes and arrive on time. Attendance will be taken. As noted, 2 unexcused absences are permitted. All others must be excused.
2. Silence all cell phones during lectures and exams.
3. Students may NOT leave the classroom during exams. Please use the restroom before an exam begins.
4. There are NO makeup exams.
5. Emails to the instructor must contain "ECON 3410" in the subject line.

My Advice:

1. **Read the textbook.** *Before* class!
2. **Read the textbook.** *After* class too.
3. **Ask questions.** During lectures, during a scheduled office hour, or via email.
4. Re-read your class notes after each lecture.
5. Copy your notes after lectures and before each exam.
6. Practice, practice, practice. Do as many practice problems as you can, and make an honest effort before looking at the solution.
7. Utilize the Learning Center (1300 Boylan Hall) for tutoring and/or extra help.
8. Do additional problems, reviews, and practice tests in MML.
9. Use alternative resources, like Khan Academy videos online.