MTH U131 Syllabus
Calculus for Business and Economics
Summer I 2008

Materials:

- *Calculus Concepts (Brief Third Edition): An Informal Approach to the Mathematics of Change* by LaTorre, Kenelly, Fetta, Harris Carpenter, Houghton Mifflin, Boston, 2005;
- the TI-83 (TI-83 plus) or TI-84 (TI-84 plus) calculator (no other calculator may be used on tests or the project without explicit permission of your instructors);
- class packet purchased from NU Reprographics.

Please bring your textbook, packet and calculator to each class.

Classes: M Tu W Th 8:00 AM - 9:40 AM, 210 Shillman Hall.

Instructors: Federico Galetto, 550 Nightingale Hall, 617-373-5769, galetto.f@neu.edu
Limin Wang, 538 Nightingale Hall, wang.lim@neu.edu

Office hours: Federico Galetto, Tu 12:00 PM - 1:30 PM or by appointment
Limin Wang, Th 12:00 PM - 1:30 PM

Objectives: this course introduces students to the use of derivatives and integrals in solving problems in business and economics, e.g. maximizing profit, calculating average investment income, future value of an income stream and consumers' surplus. A project involving optimization is also required. This project is described in the class packet. The graphing calculator is used extensively and prior familiarity with graphing calculators is helpful. Prerequisites: MTH U130 or the equivalent.

Attendance: you are expected to attend each class. If, for any reason, you are unable to come to a class, then notify your instructors via e-mail. Three or more unexplained absences will lower your final grade. As a courtesy to your classmates, keep your cell phones turned off during class.

Homework: a list of homework from the textbook and class packet is attached (this list is subject to revision). Homework exercises must be done by the next class after they are assigned; homework will be collected and corrected. Being unable to hand in homework upon request will lower your final grade. You are expected to know the solutions to all homework exercises. The questions on exams and quizzes will be based on homework exercises from the textbook, packet, quiz and test review exercises in the packet and the material from the lectures.

Quizzes and exams: there will be weekly quizzes, a midterm and a final exam. The quizzes will be given on Tuesdays and will last approximately 30-40 minutes each. The midterm exam is scheduled on May 29, 2008 (there will be no quiz the week of the midterm). If any class is canceled for any reason, any scheduled quiz or exam will take place during the next class meeting. All students without legitimate conflicts approved by the instructor will take the final exam at the scheduled time: June 23, 2008 at 8:00 AM. Do not make travel plans that conflict with the

final exam. The last day to file a final exam conflict form is May 20, 2008. The final exam is cumulative.

Grading: your grade in the course will be determined as follows: quizzes 30%, midterm exam 15%, project 15%, final exam 40%. Active class participation can improve your final grade at the instructors' discretion. Number grades will be converted to letter grades according to the following table:

93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
A	A-	B+	B	B–	C+	C	C–	D+	D	D–	F

Last day to drop the course without a W grade is May 16, 2008. Last day to drop the course with a W grade is June 6, 2008. According to the Math Department policy, an incomplete grade (I) will rarely be given; an I is not a mean to rescue a failing grade or to postpone the final. It is University policy that no grade, including an incomplete, can be changed after one year. Exceptions must be authorized by the Academic Standing Committee.

Academic Honesty: cheating will not be tolerated. All incidents of cheating will be reported to the Office of Judicial Affairs. The University's cheating policy and related disciplinary actions are detailed in the Student Handbook.

Tutoring: tutoring is available free of charge in the Mathematics Tutoring Center in 540B Nightingale Hall starting May 7, 2008. Hours of operation for Summer I are: M Tu W 12:00 PM - 8:00 PM, Th 12:00 PM - 6:00 PM. All tutoring is done on a first come first served basis. Students must come in person to schedule appointments. No appointments can be made by phone.

Miscellaneous: it is your responsibility to be aware of any changes to the syllabus that are announced in class. Students are responsible for all information given when they are absent. If you have any concern that is not or cannot be resolved by speaking with your instructors, the next step is to speak with the course coordinator: Prof. Donald King, 617-373-5679, d.king@neu.edu.

Topics and Assignments: all information contained in this list is provisional and might change during the course of the semester. All changes will be announced in class.

Day	Section	Homework problems
5/7	3.1	12, 13abcd, 14, 17, 26a
		(packet) read Scatter Plots and Models on the TI-83/84
		(packet) Model Review Problems 1, 2
5/8	3.2	7a, 8, 9a, 10, 17, 21, 22
	3.3	2, 5, 13, 15, 1a (from Sec. 3.4)
	3.5	7, 13, 14, 15
5/12	4.1	(packet) Algebra Review Problems 1-5
	4.2	1-6 (slope equations only), 7-14
5/13	4.3	1-6 (slope equations only), 7-14
5/14	4.4	9, 10, 14, 17-26
5/15	4.5	10-26
5/19	4.2	21ab, 24, 25abcd, 26
5/20		(packet) Compound Interest Review Problems 1, 2
	4.3	16abc, 22, 23abc
	4.4	41 (ignore per cent rate change), 42ab, 44, 45a
	4.5	4, 28, 30abcde
5/21	5.1	3, 5, 6, 17abc, 18abc, 19abc, 20ab, 25acde
		(packet) Algebra Review Problems 6-12
5/22		(packet) Optimization Problems 1-10
5/27	5.2	17a, 24, 25, 29
5/29	5.3	2, 29
		(packet) Optimization Problems 11-14
6/2	5.3	7, 9, 14 (ignore per cent rate of change), 20
6/3		(packet) Anti-derivative problems 1-12
	6.4	9-15, 17, 19-21
6/4	6.4	26, 27, 33
	6.1	8ac, 13a, 18ab
6/5	6.2	1, 4
	6.4	1-4
6/9		(packet) Additional Definite Integral Problems 1-8
6/10	6.5	8abc, 9abc, 10abc, 11c
6/11	6.5	13, 15, 21, 23, 25, 27, 28, 29
6/12	6.6	2, 5, 10, 6 (on page 467)
6/16	7.2	5a, 10a, 14a
6/17	7.2	5b, 6, 10b, 14b
	7.3	4abc, 8bc, 9c