

Instructors

<i>Name</i>	<i>E-mail</i>	<i>Office</i>	<i>Office Hours</i>
Bernardo Sousa	beni@math.toronto.edu	ES 4146	Th 14-15 or by appointment

Course Description

This course is an elementary introduction to one-dimensional dynamics, iteration of quadratic functions, dynamics of linear mappings, the Henon map, Julia sets and the Mandelbrot set. The emphasis in this course will be on computations and examples. However, some general theorems will be stated (and even proved!), some theorems of a more abstract nature may be stated without proof; and some sections may be skipped.

Textbook. *A First Course in Chaotic Dynamical Systems*, by Robert L. Devaney.

Course Website. The website for the course is

<http://uoft.me/mat335>

The [Blackboard](#) will be used only for distributing grades.

Handouts and other important information will be posted on the website, so you should check it regularly.

Discussion Board

This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates and the instructor. Rather than emailing questions to the teaching staff, we encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com.

Find the class page at: <https://piazza.com/utoronto.ca/fall2014/mat335/home>

Homework Assignments

There will be **SIX Homework** assignments posted on the course website, and it will cover the recent material discussed in lectures. These are designed to assist students in understanding the course material. They also serve as good practice for the term test, and the final exam, as questions on these will be on approximately the same level as questions on the assignments.

You are expected to work on the questions assigned, and if you cannot solve a problem, you should ask the instructor for help.

You are encouraged to work with your fellow students while working on questions from the problem sets. However, **the writing of your assignment must be done without any assistance whatsoever.**

Your Homework mark will be determined by taking the average of the best FIVE assignments.

Note. Assignments are due at the beginning of the lecture it is due. No extensions will be given.

Term Test

There will be **ONE term test**. See the course schedule below for dates, times, and location for each term test. More details about the term test will be given later. You **must** bring your student card to each term test. No aids will be allowed.

Missing a Term Test. If you cannot show up for a test because of illness or any other special reason, you **MUST** submit the official UofT medical certificate, which can be downloaded from the course website.

There will be **NO** make-up tests. The marking scheme will be adjusted properly for students who have missed the test because of illness or any other (approved) legitimate reason.

Final Exam

The final exam of the course will take place during the examination period in December, and will be 3 hours long. It will cover all the material presented in lectures and tutorials. No aids will be allowed.

Marking Scheme

Your final grade is determined in the following way:

Homework (Best 5)	25 %
Term Test	25 %
Final exam	50 %
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	100 %

Class Expectations

One of my main concerns is to provide you with good conditions for optimal study. Because of this reason:

- I expect you to come to class on time. If you happen to be late, please take a seat without disturbing your colleagues.
- I expect you to be attentive and ask questions about concepts and problems you don't understand.
- This is a large class: chatting with your classmates during lecture is extremely disturbing for everybody in the class; although you don't realize it, it gets very loud. If you do disturb the class repeatedly, you will be asked to leave the class and come back when you think you can sit there quietly. Once the class starts, I expect you to interrupt any personal conversation.

Code of Behaviour / Plagiarism

Students should become familiar with and are expected to adhere to the Code of Behaviour on Academic Matters which can be found at:

<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>

Course Outline

The following is a rough outline of the material which will be covered.

Week	Dates	Chapters	Notes
1	Sep 8–12	3	Classes begin. No tutorials this week
2	Sep 15–19	4	Homework Assignment #1 due on Sep 17
3	Sep 22–26	5	
4	Sep 29–Oct 3	6	Homework Assignment #2 due on Oct 1
5	Oct 6–10	7	
6	Oct 14*–17	8	Homework Assignment #3 due on Oct 15
7	Oct 20–24	9	Term Test (7–9pm on Oct 21)
8	Oct 27–31	10	Homework Assignment #4 due on Oct 29
9	Nov 3–7	11–12	
10	Nov 10–14	12–13	Homework Assignment #5 due on Nov 12
11	Nov 19**–21	14	
12	Nov 24–28	15	Homework Assignment #6 due on Nov 26
13	Dec 1–3	16–17	Dec 3 is the last day of classes

* No classes on Oct 13 (Thanksgiving Day).

** No classes on Nov 17–18 (Fall Break).