

Syllabus

Math 3410/5410 (800:142): Dynamical Systems: Chaos Theory and Fractals, Spring 2018

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Office Hours: Wednesday 11 - 11:50 am and 1 - 1:50 pm; Friday 11 - 11:50 am or by appointment.

Textbook: *A First Course in Chaotic Dynamical Systems: Theory and Experiment*, by Robert L. Devaney, ISBN: 0-201-55406-2.

Web-page: The class web-page is <http://math.uni.edu/~ostapyuk/MATH3410.html>. It contains the copy of this syllabus, homework and lab assignments and deadlines, exam dates and other important information. Some information will appear later on, so please check the web-page frequently.

Points and Grades: Course grades will be based on the points you receive for one midterm exam (100 pts), comprehensive final exam (150 pts) and homework and labs (rescaled to 100 pts).

Exams: There will be one midterm exams (scheduled during regular class time, 50 minutes) and comprehensive final exam during final week (1 hour 50 minutes). Midterm exam date will be announced in class and posted on the web-page at least one week in advance. Final Exam will be on Monday, April 30th from 1 to 2:50 pm in WRT 08.

Homework assignments and due dates will be posted on the class web-page. Unless noted otherwise, all problems are from the textbook. Graduate students enrolled in MATH 5410 will be assigned additional problems from time to time. All homework should be turned in directly to me before or after the class. Please **do not** put it into my mailbox, under my office door, etc. If you are not going to be in class on the due date, please ask your classmate to turn it in for you. You can also turn in you homework before the deadline, if it is ready. You may work on homework assignments together or get help from me, but please make sure that the solutions you presented are your own or at least well understood. Try to start working on your homework on the same day the topic was covered in class. Show your work, write neatly, clearly mark the number of section and problem. On the top page, write down your name (both first and last), class name and homework assignment number.

Staple your homework!

Labs: We plan to have several labs. They will be scheduled during normal class time, but in a different room. Information about labs (dates, time, room, assignment, deadlines) will be posted on the class web-page at least a week in advance. No prior knowledge of software or programming will be required.

Software: The main software will be Wolfram Mathematica. It will be installed on all lab computers in Wright Hall. If you wish, you may also download and install it on your home computer/laptop. If you prefer to use another computer algebra system or programming language, you are welcome to do so, but I will not be able to help you much with these.

Attendance: Classroom attendance will not be checked and will not be a part of your grade. However, attendance of all exams is required. If you miss an exam without a justifiable reason, you will receive 0 points for this exam, which will greatly diminish your chances to pass the course. If you miss or plan to miss an exam for a serious and verifiable reason, please let me know ASAP.

ADA: Instructional accommodations due to disabilities must be arranged through the Office of Disability Services. The ODS can be contacted at 273-2677 or via <http://www.uni.edu/sds/>.

Equal Opportunity and Non-Discrimination Statement: <http://www.uni.edu/policies/1303/>.