

Course Syllabus:

Dynamical Systems BMETE93MM02

Classroom: H 46

Class Time: 12:15-15:45 Monday

Office Hours: Tentatively, Thursday 13:00-13:50

Text in English:

P. Walters: An Introduction to Ergodic Theory. Springer.

S. Wiggins: Introduction to Applied Nonlinear Analysis and Chaos, Springer, Berlin, 1988.

Text in Hungarian:

http://www.math.bme.hu/~simonk/dinamikai_rendszerek

Prerequisites: This is a course for MSc and PhD students.

No further prerequisites.

Homework: Homework will be assigned occasionally. Homework is due in three weeks from the moment it was assigned.

It is not compulsory to turn in any homework. However, those who decide to turn in homework will get additional points on the written part of the final exam proportional to the number of points they got for their homework.

Grading: No midterms. Students can opt between taking the final exam either in Hungarian or in English. The final exam consists of a written part and an oral part. The written part of the exam consists of exercises similar to the ones we solve in class or appear in the homework assignments.

Topics:

- (1) Ergodic measures
- (2) Entropy
- (3) Thermodynamical formalism
- (4) Bowen-Sinai-Ruelle measure