

Course "Chaos and Fractals"

Bachelor Program Knowledge Engineering
Block 3.1, academic year 2012-2013

Lecturer: Kateřina Staňková

Course material:

Robert L. Devaney,
"A first course in chaotic dynamical systems: theory and experiment",
Addison-Wesley, 1992. ISBN 0-201-55406-2.

Tentative Course Schedule:

Week 1

Tuesday	04-09-2012	13:30-15:30	2.015	Introduction, Theory Ch. 1-3, Exercises Ch. 3 (excl. 3.6)
Wednesday	05-09-2012	13:30-15:30	0.015	Theory + Exercises Ch. 4

Week 2

Tuesday	11-09-2012	13:30-15:30	1.001	Experiment 3.6 "The computer may lie"
Wednesday	12-09-2012	13:30-15:30	0.015	Theory + Exercises Ch. 5
Thursday	13-09-2012	08:30-10:30	2.015	Theory + Exercises of first part of Ch. 6

Week 3

Tuesday	18-09-2012	13:30-15:30	2.015	Experiment 5.6 "Rates of convergence"
Wednesday	19-09-2012	13:30-15:30	0.015	Theory + Exercises of second part of Ch. 6
Thursday	20-09-2012	08:30-10:30	2.015	Theory + Exercises Ch. 7

Week 4

Tuesday	25-09-2012	13:30-15:30	1.001	Experiment 6.4 "Transition to chaos"
Wednesday	26-09-2012	13:30-15:30	0.015	Theory + Exercises Ch. 7, Ch. 8 (+ start of Ch. 9?)
Thursday	27-09-2012	08:30-10:30	2.015	Theory + Exercises Ch. 9

Week 5

Wednesday	03-10-2012	13:30-15:30	0.015	Exercises Ch. 9, Theory + Exercises Ch. 10
Thursday	04-10-2012	08:30-10:30	1.001	Experiment 8.3 "Windows in the orbit diagram"

Week 6

Tuesday	09-10-2012	13:30-15:30	2.015	Theory + Exercises Ch. 11 (+ Remarks on Ch. 12)
Wednesday	10-10-2012	13:30-15:30	0.015	Exercises Ch. 11 + Theory Ch. 14
Thursday	11-10-2012	08:30-10:30	2.015	Exercises Ch. 14 / First discussion of old exams

Week 7

Tuesday	16-10-2012	13:30-15:30	1.001	Experiment 14.8 "Iterated function systems"
Wednesday	18-10-2012	09:30-10:30	2.015	Second discussion of old exams

Week 8

Friday	Date/time/location not known yet			EXAM (<i>always check the schedule for the exams!</i>)
--------	----------------------------------	--	--	---