CHAOTIC DYNAMICS: COURSE SYLLABUS

**Course Number:** PHYS 715

**Class:** Tues., Thurs.; 2:00 to 3:15; PHY 3301

**Instructor**
Edward Ott  
Room 3329 AVW Building  
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**Office Hours:** Tues. 3:15-4:15 and, at other times, by appointment.

**Course Content:** One dimensional maps, strange attractors, fractal dimension, embedding, Lyapunov exponents, entropy, controlling chaos, fractal basin boundaries, chaotic scattering, Hamiltonian chaos, quantum chaos, chaos in fluids,

**Textbook:** ‘Chaos in Dynamical Systems’ by E. Ott (Cambridge University Press, 2nd edition)

**Homework/Exam:**
- Homework set #1 due Feb. 19  
- Homework set #2 due March 11  
- Homework set #3 due April 8  
- Exam April 17  
- Homework set #4 April 29  
- Term paper due May 14

**Grading:** Homworks 50%, Exam 25%, Term paper 25%.