## Nonlinear Dynamics FALL 2016 – MCE 663





## Interdisciplinary Course for Engineering and Science Graduate Students

Explore nonlinear dynamics theory and its applications to mechanical, chemical, electromagnetic or biological oscillators; stability, phase space analysis, limit cycles, bifurcations, perturbation methods, chaos, fractals, strange attractors and other advanced topics. Emphasis will be on:

- geometric thinking
- computational and analytical methods
- makes extensive use of symbolic and computational software

## **REGISTER NOW!**

Place: Kelley Hall 203

- Time: Tuesdays and Thursdays 3:30pm 4:45pm
- Inst.: David Chelidze, PhD Professor of Mechanical Engineering 401.874.2356 <u>chelidze@uri.edu</u> egr.uri.edu/nld/chelidze
- Text: Steven H. Strogatz, Nonlinear Dynamics and Chaos: With Applications to Physics, Biology, Chemistry, and Engineering, Second Edition, Westview Press, 2014.