ENME665: Nonlinear Oscillations

- Material covered in previous weeks
  - ❖ Perturbation Methods
    (Straightforward Expansions, Lindstedt-Poincaré Method; Method of Multiple Scales; Nayfeh and Mook, 1979; Chapters 2 and 3)

- Material to be covered today and next class
  - ❖ Method of Multiple Scales; Nayfeh and Mook (1979; Chapters 2 and 3)
  - ❖ Representative System with Interactions
  - ❖ Chapter 1, Nayfeh and Balachandran (1995, 2006)
  - ❖ MATLAB Program to do with Logistic Map is posted on Canvas under the same folder

- The Wilberforce pendulum, named after British Physicist, Lionel R. Wiberforce, is a pendulum with a spring suspended mass. This system has a pendulum mode, as well as spring-torsion and spring-stretching modes. There is energy exchange between the different oscillation modes.