

## Tentative Schedule

- Week 1
  1. Aug 30th (Mon), Overview of the course. What is dynamical system?
  2. Aug 31st (Fri), Examples.
  3. Sep 5th (Wed), Flow on the line.
  4. Sep 6th (Thur), Tutorial on MATLAB. HW1 assigned.
  5. Sep 7th (Fri), Flow on the line.
- Week 2
  1. Sep 10th (Mon), Flow on the line. .
  2. Sep 12th (Wed), Bifurcation.
  3. Sep 13th (Thur), Review. Intro to dfield. HW2 assigned.
  4. Sep 14th (Fri), Bifurcation. HW1 due. (Last day to add)
- Week 3
  1. Sep 17th (Mon), Bifurcation.
  2. Sep 19th (Wed), Bifurcation
  3. Sep 20th (Thur), Review, HW3 assigned.
  4. Sep 21st (Fri), Flows on the circle. HW2 due.
- Week 4
  1. Sep 24th (Mon), Flows on the circle. (Moon festival)
  2. Sep 26th (Wed), Linear systems.
  3. Sep 27th (Thur), Review of Part 1. HW4 assigned.
  4. Sep 28th (Fri), Linear systems. HW3 due.
- Week 5
  1. Oct 1st (Mon), Linear systems
  2. Oct 3rd (Wed), Phase Plane.
  3. Oct 4th (Thur), Review HW5 assigned.
  4. Oct 5th (Fri), Phase Plane. HW4 due.
- Week 6
  1. Oct 8th (Mon), Phase Plane.
  2. Oct 10th (Wed), Phase Plane.
  3. Oct 11th (Thur), Review. Intro to pplane. HW6 assigned.
  4. Oct 12th (Fri), limit cycles. HW5 due. (Last day to drop)
- Week 7
  1. Oct 15th (Mon), limit cycles.

2. Oct 17th (Wed), limit cycles.
  3. Oct 18th (Thur), Review. HW7 assigned. HW6 due.
  4. Oct 19th (Fri), Fall Break classes suspended
- Week 8
    1. Oct 22nd (Mon), Bifurcation revisited.
    2. Oct 24th (Wed), Bifurcation revisited.
    3. Oct 25th (Thur), Review of part 2.
    4. Oct 26th (Fri), Bifurcation revisited. HW7 due.
  - Week 9
    1. Oct 29th (Mon), Bifurcation revisited.
    2. Oct 31st (Wed), **Take home Midterm.** Project assigned.
    3. Nov 1st (Thur), Exam collected. Solution given. HW8 assigned.
    4. Nov 2nd (Fri), Lorenz equations.
  - Week 10
    1. Nov 5th (Mon) Lorenz equations.
    2. Nov 7th (Wed) Lorenz equations.
    3. Nov 8th (Thur) Review. Demo. HW9 assigned.
    4. Nov 9th (Fri) One-dimensional maps. HW8 due.
  - Week 11
    1. Nov 12th (Mon) One-dimensional maps.
    2. Nov 14th (Wed) One-dimensional maps.
    3. Nov 15th (Thur) Review. Demo. HW10 assigned.
    4. Nov 16th (Fri) Fractals. HW9 due. (Last day for course withdrawal)
  - Thanksgiving vacation week
  - Week 12
    1. Nov 26th (Mon) Fractals.
    2. Nov 28th (Wed) Fractals.
    3. Nov 29th (Thur) Review.
    4. Nov 30th (Fri) Strange attractors. HW10 due.
  - Week 13
    1. Dec 3rd (Mon) Strange attractors.
    2. Dec 5th (Wed) Strange attractors(optional). Project Q&A.
    3. Dec 6th (Thur) Review of part 3.
    4. Dec 7th (Fri) Final Review. Project Due.
  - Final exam TBA.