Math/Mapl 670, Fall 2006

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Office hours:
TTh 12:30 - 1:30
Prerequisites: Math 405 and 410 or the equivalent.

Math 670 is an introduction to some important aspects of modern dynamical systems and qualitative theory of differential equations. The main topics are:
existence and uniqueness theorems, asymptotic behavior of solutions and stability, linear and non-linear oscillations, Floquet theory for periodic systems, planar systems with Poincare- Bendixson theorem, elements of the theory of dynamical systems and attractors.
Math/Mapl 670-671 form a one-year sequence covering topics required in the qualifying ODE exam. See the detailed syllabus in the Graduate office.

There will be two hourly exams (each counts 100 points), homework assignments (for total 100 points) and a comprehensive final exam (200 points).

Additional references.