Math 414

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Office hours:  
Prerequisites: Math 410 , or Math 250-251.

Math 414 is an introduction to some important aspects of modern qualitative theory of differential equations. The main topics are: existence and uniqueness theorems, asymptotic behavior of solutions and stability, linear and non-linear oscillations, elements of the theory of dynamical systems and attractors.

Students with strong record in lower level courses (such as 246 , 461 , 463 ) who are interested in rigorous mathematical methods may enroll with the approval of the Undergraduate Office.

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