

MATH 306: ORDINARY DIFFERENTIAL EQUATIONS (Q)

This is the study of the theory and methods of initial value problems of first and second order equations as well as systems of first order linear equations with constant coefficients. Methods such as integrating factors, undetermined coefficients, variation of parameters and the linearization of nonlinear problems will be covered. Uniqueness and existence questions will be discussed. Differential equations is a powerful modeling tool and can be applied to diverse areas of study including environmental and population studies, radioactive decay, fluid flow, epidemiology and much of engineering. Students will be required to make a presentation in their area of interest.

Credits: 3

Prerequisites:

MATH 212. Alternate years.

Department: Mathematics & Applied Mathematics