

# MTH 238 : Applied Differential Equations I

This course is an introduction to techniques for solving differential equations with applications. Topics include solving first order differential equations, applications to various models (e.g. populations, motion, chemical mixtures, etc.), solving higher order linear differential equations with constant coefficients (general theory, undetermined coefficients, reduction of order and the method of variation of parameters, and Laplace transform). Series solutions and solutions to systems are also covered.

**Program**

Mathematics

**Hours** 3

**Theory Hours** 3

**Corequisites**

MTH 227 (Calculus III)