Math 1213
Coordinate Geometry and Ordinary Differential Equation

Course Contents:

Coordinate Geometry of Two Dimensions: Change of Axes, Transformation of Coordinates, Simplification of Equations of Curves.

Coordinate Geometry of Three Dimensions: System of Coordinates, Distance between two Points, Section Formula, Direction Cosines and Projection, Planes and Straight Lines.

Ordinary Differential Equation: Degree and Order of Ordinary Differential Equations. Formation of Differential Equations. Solutions of First Order Differential Equations by Various Methods, Solutions of General Linear Differential Equations of Second and Higher Orders with Constant Coefficients, Solution of Homogeneous Linear Differential Equations. Solution of Higher Order Differential Equations when the Dependent of Independent Variables are Absent. Differential Equations with Variable Coefficients.

Series Solution: Singular Points, Series Solutions: Frobenius Method, Bessel's and Legender's Differential Equations.

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