

**Mathematics Syllabus**

Subjects	Topic to be Covered
Relations and functions	Relations and Functions Inverse Trigonometric Functions
Algebra	Matrices Determinants
Calculus	Continuity and Differentiability Applications of Derivatives Integrals Applications of the Integrals Differential Equations
Vectors and Three-Dimensional Geometry	Vectors Three - dimensional Geometry
Linear Programming	Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P. problems, graphical method of solution for problems in two variables, feasible and infeasible regions, feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).
Probability	Conditional probability, multiplication theorem on probability. independent events, total probability, Baye's theorem, Random variable and its probability distribution, mean and variance of random variable. Repeated independent (Bernoulli) trials and Binomial distribution.