

Program Name:	Integrated Master of Computer Application (IMCA)
Program Code:	CS301
Course Name:	Fundamentals of Mathematics*
Course Code:	-
Pre-requisite Course:	-

*This is a Non-Credit Course offered as a pre-requisite to the students enrolling in IMCA Programme without studying the Subject (Mathematics / Statistics / Elements of Account/ Accountancy / Physics / Business Mathematics / Computer). Evaluation & Examination shall be prescribed by the institute as a pre-requisite course.

Teaching Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
6	2	-	-	-	-	-	-	-

Teaching Hours: 45

Learning Objectives:

Learn Basic concepts of geometry, Real Numbers and Polynomials, Ratio and Proportion, Surface and Volume & Matrices, Statistics and Probability to develop the logic ability in students for programming in the field of Computer Science.

Topics to be covered:

Unit No	Topic	Total Hours	Weightage (%)
1.	Basic concepts in geometry: Point, line and plane, Coordinates of a point, distance, Segment	5	12
2.	Real Numbers: Properties of rational numbers and Operations on similar surds: Addition and Subtraction, Operations on surds: Multiplication, division and rationalization of the surds.	6	13
3.	Polynomials: Degree of the polynomial, standard form, coefficient form of a Polynomial, Operation on Polynomials, Value of the polynomial, Factors of the Polynomial.	6	13
4.	Ratio and Proportion: Percentage and Operations on equal ratios, Proportion and Continued Proportion.	5	12
5.	Surface and Volume: Cuboid, Cube and Cylinder, Cone, Sphere and Hemisphere.	6	13
6.	Matrices and determinants: Types of matrices, Operations on matrices, Determinants and cofactors, Inverse of a square matrix, Rank of matrix.	6	13
7.	Statistics: Mean, Median, Mode	6	13
8.	Probability: A Theoretical Approach	5	11