



## PROGRAMME SPECIFIC OUTCOME

### DEPARTMENT OF B.SC MATHEMATICS

#### On the successful completion of B.Sc. Mathematics programme, students will

<b>PSO1:</b>	Understand the advanced concepts of Classical Algebra, Differential and Integral Calculus and get skills of applications of Differential and Integral calculus.
<b>PSO2:</b>	Understand the basic concepts of Three Dimensional Geometry and get the skills of applying them.
<b>PSO3:</b>	Study the basic Principles of Abstract Mathematics and Determine the solutions of Differential Equations and their applications.
<b>PSO4:</b>	Find approximate solutions to algebraic and transcendental equations. Acquire the knowledge of Transformation Techniques and Solve simultaneous equations arising out of real life situations using LPP techniques.
<b>PSO5:</b>	Learn the concepts of Modern Algebra. Analyse the Properties of Real and Complex numbers.
<b>PSO6:</b>	Study various statistical models and the algebra of Matrices and applying them to Vector spaces.
<b>PSO7:</b>	Acquire the knowledge on Numbers, in particular, Prime Numbers.
<b>PSO8:</b>	Get deep knowledge about Statics and Dynamic, thereby know where they apply to reach optimal solution to complex decision making problems using OR concepts.

#### On the successful completion of M.Sc. Mathematics programme, students will

<b>PSO1:</b>	Understand the advanced concepts in Group Theory. Realize that how abstract concepts can be understood through concrete examples by studying Real Analysis.
<b>PSO2:</b>	Apply different statistical measures for testing the hypothesis and verify the validity of an argument by applying Propositional Logic and Learn the concept of Dual spaces and Inner product spaces and Understand the concept of Riemann integration and come to know integration and differentiation are inverse operations.



VIRUDHUNAGAR HINDU NADARS' SENTHIKUMARA NADAR COLLEGE  
(An Autonomous Institution Affiliated to Madurai Kamaraj University)  
[Re-accredited with 'A' Grade by NAAC]  
Virudhunagar – 626 001.

<b>PSO3:</b>	Study the fundamental features of Topology.
<b>PSO4:</b>	Get the through knowledge of Galois Theory.
<b>PSO5:</b>	Acquire knowledge of Measure Theory and get skills of integrating functions without limit process.
<b>PSO6:</b>	Know basic Principles of Graph Theory and learn algorithms for solving real life problems using graph models. Know the decision making using optimization Techniques. Derive the equations of motions using different approaches. Know about Cryptography.
<b>PSO7:</b>	Solve different types of partial differential equations. Determine the solutions of the initial value problems of differential equations.
<b>PSO8:</b>	Have a deep study as classes of functions in Functional Analysis.

On successful completion of the **M.Phil. Mathematics** programme, students will

<b>PSO1:</b>	The course M.Phil (Mathematics) has been enjoyed by the scholars as it has been designed on the basis of Choice Based Credit System (CBCS).
<b>PSO2:</b>	The scholars have been motivated to do research in Mathematics irrespective of pure or applied Mathematics. In the first semester, the scholars have been tuned to learn advanced research oriented mathematical subject namely, Advanced Algebra.
<b>PSO3:</b>	In addition, they have been trained to write research articles in Mathematics.
<b>PSO4:</b>	Awareness on the Impact Factor for journals and the awards and prizes for mathematicians have been created among the scholars by means of Research Methodology.
<b>PSO5:</b>	A list of consisting of seven elective papers that includes Research Topics in Graph Theory, Functional Analysis and Approximation Theory has been given to the scholars so that they can choose their own area of interest to do research.
<b>PSO6:</b>	Many scholars have published / submitted research articles in national / international journals. This proves the strength of the course.