Govt. Shrimant Madhavrao Scindia PG College, Shivpuri
Department of Mathematics

Sr. No.	Name of Program	Course	Course Title	Expected Outcome
			Department of Mathematics	
1	**Bachelor of Science**	B.Sc. I Year	Algebra and Trigonometry	1- They will be able to the system of homogeneous and non- homogeneous linear of equations in n variables by using concept of rank of matrix, finding Eigen values and Eigen vectors. 2- They get skilled in application of factor theorem, remainder theorem to solve problems based on polynomials by using given relations between roots & coefficient. 3- Solve different kinds of problems properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra and proposition.
2			Calculus & Differential Equation	1- Student will be able to find the values of limit of a function at a point using the definition of a limit. 2-They will be able to Identify and apply the intermediate value theorem, Mean value theorem and L"Hospital"s rule. 3- Students will be aware of the techniques of integration and differentiation of function with real variables as well as to recognize d solve and different types of differential equations such as Exact, homogenous and non- homogeneous etc.
3			Vector Analysis & Geometry	1- After completing this course student will be able to Generalize basic notions of reflection, rotation, projection with real life examples. 2- Evaluate theoretical and practical problems that involves geometry. 3- Students develop knowledge of the limit, continuity, differentiation of Vector functions.
4	**Bachelor of Science**	B.Sc. II Year	Abstract Algebra	1. Recognize the various algebraic structures with their corresponding binary operations. 2 Compare two groups of same orders on the basis of isomorphism Criteria. 3-Calculate the possible subgroups of given group of specific orders and will recognize them

				4- Generalize the groups on the basis of their orders, elements, order of elements and group relations
5			Advanced Calculus	1. Enumerate double and triple integrals, applications to area and volume and the change of variables in double integrals. 2. Continuity of functions, single variables and properties of continues function 3. Discuss mean value theorems and their geometrical interpretation.
6			Differential Equation	Solve linear differential equations with constant coefficients, nonhomogeneous differential equations, system of first order equations, solution of differential equations by Power series method
7		B.Sc. III year	Linear Algebra & Numerical Analysis	1. To study the definition of example of basis and dimension of vector spaces linear dependence and linear independence, to solve problems. 2. Use the concept of inner product spaces check the orthogonality of vectors, to find the orthogonal and orthonormal basis. 3. Study of the properties of linear transformations to linearity of transformations, solve the problems of matrix transformations, change of basis.
8			Real & Complex Analysis	1. After completing the course, students will able to -know sequence and series and their convergence and divergence. 2. Prove the Cauchy Riemann equations and apply them to complex functions in order to determine whether a given continuous function is complex differentiable. 3. To discuss complex number and ordered pair, interior points, open and close set.
9			Statistical Methods	Using this subject student will come to know: Measures of central tendency, S.D., Binomial , Poisson and normal distribution and probability sampling Null and alternative hypothesis.