

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's

Shri Mulikadevi Mahavidyalaya, Nighoj

Tal-Parner, Dist-Ahmednagar

DEPARTMENT OF MATHEMATICS

Course Outcome 2020-21

Course Offered

Sr.No.	Course	Course Outcomes
1.	F.Y.B.Sc Mathematics "Algebra" (MT111)	1.To study about sets, relations, equivalence relations, equivalence classes and partition on sets. 2.To study division algorithm, The GCD, The LCM, Euclid Lemma. 3.To study about the primes and the theory of congruence and fermat's theorem. 4.Students will learn about sums and products, basic algebraic properties, module, complex conjugates, exponential form, products and quotients, De-Movier's theorem of complex numbers.
2.	F.Y.B.Sc Mathematics "Calculus I" (MT112)	1.Identify algebraic and order properties of real number. 2.Identify and apply the function properties of real number system such as completeness property. 3.Verify the values of limit of a function at a point using the definition of a limit. 4.Study will learn sequence and their limits, limits theorems, monotone sequence, subsequences and Bolzano-Wierstrass theorem.
3.	F.Y.B.Sc Mathematics "Practical"	Students will learn how to solve problems using maxima software.

	(MT113)	
4.	F.Y.B.Sc Mathematics "Analytical Geometry" (MT121)	1.To study about the analytical geometry of 2-D, general equation of second degree in two variables, reduction to standard form, center of conic, nature of conic. 2.Solve the problems of lines in 3-D, Planes, sphere and cylinder, how geometry is related to algebra by using their algebraic equation.
5.	F.Y.B.Sc Mathematics "Calculus II" (MT122)	1. Identify and apply the intermediate value theorem, mean value theorem, L-Hospital rule, Taylor's Theorem, successive differentiation. 2.To study about the transformation of non linear equations to separable equations, exact differential equations, integrating factors. 3.To study about the linear first order equation, separable equations, existence and uniqueness of solutions of non linear equations.
6.	F.Y.B.Sc Mathematics "Practical" (MT123)	Students will learn how to solve problems using maxima software.
7.	S.Y.B.Sc Mathematics "Calculus Of Several Variables" (MT231)	1.To study about the function of several variables, limits and continuity. 2.To study about the partial derivatives and differentiability, partial differential equation and wave equation. 3.Student will learn extreme values of functions of two variables, second derivative test, Lagrange multiples. 4.Study about integrated integrals, Fubini's Theorem, double integral in polar condition, Jacobians, Change of variables in multiple integrals.
		1. Trained to use various numerical and analytical methods. 2.Demonstrate understanding of common numerical methods and how they are used

8.	<p align="center">S.Y.B.Sc Mathematics “Numerical Methods & It’s Application” (MT232 A)</p>	to obtain approximate solutions to otherwise intractable mathematical problems. 3.The solutions of diferential equations and nonlinear equations and derive numerical methods for various mathematical operations ans tasks, such as interpolation, differentiation, integration, the solutions of linear. 4.Apply numerical methods to obtain approximate solutions to mathematical problems.
9.	<p align="center">S.Y.B.Sc Mathematics “Practical” (MT233)</p>	Student will learn how to solve problems using maxima software.
10.	<p align="center">S.Y.B.Sc Mathematics “Linear Algebra” (MT241)</p>	1.Define basic terms and concepts of matrices, vector spaces. 2.Apply the matrix calculus in solving a system of linear algebraic equations. 3.To understands inner product spaces and linear transformation. 4.To solve problems for orthogonal and orthonormal basis.
11.	<p align="center">S.Y.B.Sc Mathematics “Vector Calculus” (MT242 A)</p>	1.To study about the curves in space, limits and continuity, integrals of vector functions, unit tangent vector, curvature of plane curve and normal vectors for space curve. 2.Students will learn integrals, additivity, vector fields, gradient fields, work done by a force over a curve in space also path independence, Green’s Theorem. 3.To study about parameterization of surfaces, implicit surface, surface integrals, orientation of surface. 4.To study about applications of integrals, Stock’s theorem, divergence in 3-D, divergence theorem, unifying the integral theorems.
12.	<p align="center">S.Y.B.Sc</p>	Students will learn how to solve problems

	Mathematics "Practical" (MT243)	using maxima software.