Dayanand Science College, Latur.
Programme Specific Outcomes (PSOs)
of B.Sc. Mathematics

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Sr. No.	PSO No.	Programme Specific Outcomes (PSOs) of B.Sc. Mathematics
1	PSO1	Built up confidence by developing a feel for numbers, patterns and relationships.
2	PSO2	Provide with the opportunity to acquire mathematics to reach it to at leasr key stage UG level
3	PSO3	Enable us to start the postgraduate basic training of mathematics as it is a requirement of the training of Basic application of Mathematics
4	PSO4	Improve students chances of employment
5	PSO5	Solve the problems independently & interpret the results.
6	PSO6	Communicate and apply mathematical concepts to solve real life problems
7	PSO7	Understand and apply mathematical principles and their applications
8	PSO8	Develop the abilities to reason logically, to classify, to generalize and to prove
9	PSO9	Acquire a foundation appropriate to their further study of Mathematics and of other disciplines

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Sr. No.	PSO No.	Programme Specific Outcomes (PSOs) of B.Sc. Mathematics
1	PSO1	Introduce career and market oriented, skill enhancing add-on MATLAB courses
2	PSO2	The utility for job, self employment and empowerment of the students.
3	PSO3	The students well be equipped with certificate /Diploma / Advanced diploma in add-on orientation course.
4	PSO4	Applications of Mathematics software like MATLAB, MAPAL, MATHAMATICA, LINGO, etc. in the solution of real world problems.
5	PSO5	Calculation of mathematical using the mathematical software.

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Sr. No.	Section and Paper code	Name of Paper	Course Outcomes
1	CCM-1 Section-A	Differential Calculus	• Knowledge of differential calculus with higher order and its applications. • Studies of different mean value theorem and solution of indeterminate. • Application of partial derivatives in real world problems.
2	CCM-1 Section-B	Algebra and Trignometry	• Description of basics properties of matrices and its applications. • Algebra of matrices its working Procedure for system homogeneous equations. • Detailed study of trigonometric functions, circular functions hyperbolic functions etc.
3	CCM-2 Section-A	Integral Calculus	• Integrations and its standard forms with reeducation formulae. • The study integral of transcendental functions. • Solution of areas of curves using multiple integrals
4	CCM-2 Section-B	Geometry	• The enhancement in the study of co-ordinates , plan Geometry. • Representation of line and its equations in the different forms. • Study of sphere and theorem related to sphere cones, cylinder etc.
5	CCMP-1 Based on CCM-1 & 2	Practical on MATLAB	• Introduction to the MATLAB softwear and its application. • Solution of problems of algebra using MATLAB. • Plotting the graphs of different function using MATLAB.
6	CCM-3 Section-A	Real Analysis - I	• Write down the operations on sets and functions for real valued functions. • Description of real number and its sequences. • Study of series of real numbers and its convergence, absolute convergence.
7	CCM-3 Section-B	Group Theory	• Introduction to group theory and examples on group • Describe subgroup and cyclic group & properties on quotient groups. • Study of Homomorphism image & Cauchy's theorem for abelian group & automorphism.
8	CCM-3 Section-C	Ordinory Differential Equations	• Study of the first order differential equation. • Introduction to initial value problems for homogeneous equation & linearly independent &

			• dependent. • Application of linear equation with variable coefficient & solution of the homogeneous equation.
9	SECM-I	Skill	• Introduction to mathematical software • Study of scilab software & overview & console of scilab. • Scilab features as programming language.
10	CCM-4 Section-A	Real Analysis - II	• Introduction to Riemann integral and conditions of integrability with examples. • Study of fundamental theorem of calculus & mean value theorem &improper integrals. • Study of series such as Fourier series such as Fourier series. Trigonometric series
11	CCM-4 Section-B	Ring Theory	• Introduction to ring theory and special classes of rings. • Study of ideals & quotient ring with examples. • Describing Euclidean ring & polynomial over the rational field.
12	CCM-4 Section-C	Partial Differential Equations	• Forming partial differential equation & Lagrange's linear equation with examples. • Introduction to Charpit's method Linear homogeneous partial differential equation with example • Application of wave equation by D'Alembert's method & one dimensional beat flow.
13	SECM-II	Skill	• Introduction to matrices in scilab. • Study of operator such as colon (:) dollar ($). • Study of some common functions for linear algebra.
14	DSEM-5 Section-A	Metric Spaces	• Introduction of metric space & open & closed set with examples. • Study of convergence & completeness & uniform continuity. • Study of compactness and connectedness.
15	DSEM-5 Section-B	Linear Algebra	• Study of vector spaces & linear independence & bases. • Introduction of inner product spaces with application • Study of linear transformation & application of characteristics toots.
16	DSEM-5 Section-C	Mechanics - I	• Introduction of force action and a particle. • Study of equilibrium of forces acting on a particle. • Application of forces acting on a rigid body & system of forces acting upon a rigid body.
17	SECM-III	Skill	• Calculation of partial Differential equations using Mathematical software. MAPAL, MATHEMATICA, LINGO etc. • Applications of Mathematical software's. • Study of financial of Mathematics and its project.

18	DSEM-6 Section-A	Numerical Analysis	• Introduction of differences operators, interpolation with equal intervals. • Study of properties of divided differences. • Introduction to general quadrature formulas, trapezoidal & Simpson's one – third & three eight rules.
19	DSEM-6 Section-B	Laplace Transformation	• Introduction of Laplace transform and application of Laplace transform of integral of f(t). • Study of inverse Laplace transforms & solution of differential equation by Laplace transforms. • Application of Fourier sine & cosine integrals & Fourier complex integral.
20	DSEM-6 Section-C	Mechanics - II (Dynamics)	• Introduction to kinematics & dynamics of a particle in two dimensions with application • Study of kinetics of a particle 4 conservation of linear momentum. • Description of motion of a projectile & motion in resisting medium.
21	SECM-IV	Skill	• Knowledge of insurance Mathematics. • Solving problems in numerical analysis using Mathematical Software.

Dayanand Science College, Latur.
Course Outcomes (COs)
Of MATLAB Training program (COC)

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Sr. No.	Section and Paper code	Name of Paper	Course Outcomes
1	MATLAB 1	MATLAB programming for engineers	• Study of advantages in MATLAB for the engineering process. • Formulation of MATLAB programs in natural life problems • Input output functions in MATLAB
2	MATLAB 2	MATLAB an introduction with applications	• Programming for two dimensional plotting • Programming for three dimensional plotting with mesh and surface plots. • Solving and Equation with multi variable functions.
3	MATLAB 3	MATLAB and its applications in engineering	• Basics of MATLAB, Character set, data Types, built-in functions. • Writing programs and functions of a polynomials • Linguistic variables and membership functions for fuzzy oppression, washing machine problems.
4	MATLAB 4	MATLAB COC Practical Paper-1	• Calculation of problems for algebraic functions • Plotting the graphs of 3D, 2D function with the surface. • Calculation of the problems related to the natural life using MATLAB
5	MATLAB 5	MATLAB COC Practical Paper-2	• Find out left and right limit of different functions using MATLAB. • Calculation of derivation and integration using MATLAB. • Evaluation of beta, gamma functions and its problems using MATLAB