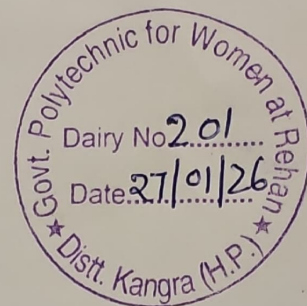


**Department of Applied Sciences & Humanities**  
**Govt. Polytechnic for Women Rehan**  
**Distt. – Kangra (H.P.) - 176022**



**LESSON PLAN**

Program Name	ARCHITECTURE
Subject Name	ARCHITECTURE MATHEMATICS
Subject Code	ARBS – 2005
Semester	2 <sup>nd</sup>
Subject Teacher Name	Reena Kumari

**Evaluation Scheme**

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	DCS	Th	Pr	Total	Th	Pr	Total
1.	ARCHITECTURE MATHEMATICS	3	2	40	-	40	60	-	60
Reference Books		(i) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition, 2007 (ii) S.S. Sabharwal, Sunita Jain, Eagle Prakashan, Applied Mathematics, Vol. I & II, Jalandhar. (iii) Reena Kumari, Mathematics-I, True Edu Publications, 2024 (iv) Satish Sharma, Eagle Prakashan, Mathematics, Vol. I & II, Jalandhar.							

**Course Outcomes (COs)**

CO – 1	The students are expected to acquire necessary background in Trigonometry to appreciate the importance of the geometric study as well as for the calculation and the mathematical analysis.
CO – 2	The students are expected to acquire necessary background in Determinants and Matrices so as to appreciate the importance of the Determinants are the factors that scale different parameterizations so that they all produce same overall integrals, i.e. they are capable of encoding the inherent geometry of the original shape.
CO – 3	The students are able to solve the basic problems of Differentiation and Integration.

**Teaching Plan**

UNIT	Name of Topic	Proposed Date	Actual Date	Remarks
	Doubt Clearing Session	27/01/2026		
	Introduction of Matrices & Determinants	28/01/2026		
	Matrices	29/01/2026		

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<b>UNIT-I</b>             <b>Matrices and Determinants</b>				
	Doubt Clearing Session	30/01/2026		
	Algebra of matrices	02/02/2026		
	Doubt Clearing Session	03/02/2026		
	Determinants	04/02/2026 05/02/2026		
	Doubt Clearing Session	06/02/2026		
	Value of determinants of 2nd & 3rd order	09/02/2026		
	Doubt Clearing Session	10/02/2026		
	Crammer's rule for solving two variables and three variables linear equations	11/02/2026 12/02/2026		
	Doubt Clearing Session	13/02/2026		
	Adjoint & Inverse of a matrix	16/02/2026		
	Doubt Clearing Session	17/02/2026		
	Matrix inverse method to solve a system of linear equations in two and three variables	18/02/2026, 19/02/2026		
	Doubt Clearing Session	20/02/2026		
	<b>UNIT-II</b>             <b>Vector Algebra and Trigonometry</b>	Introduction of Vector Algebra	23/02/2026	
Doubt Clearing Session		24/02/2026		
Notation and rectangular resolution of a vector		25/02/2026 26/02/2026		
Doubt Clearing Session		27/02/2026		
Addition and subtraction of vectors.		02/03/2026		
Doubt Clearing Session		03/03/2026		
Scalar and vector products of 2 vectors.		05/03/2026		
Doubt Clearing Session		06/03/2026		
Scalar and vector products of 2 vectors.		09/03/2026		
Doubt Clearing Session		10/03/2026		
Concept of angles, Measurement of angles in degrees, Grades and radians and their conversions.		11/03/2026 12/03/2026		
Class Test - I		13/03/2026		

	T-Ratios of Allied angles (without proof)	16/03/2026		
	Doubt Clearing Session	17/03/2026		
	T-Ratios of Allied angles (without proof)	18/03/2026		
	Graphs of Sin x	19/03/2026		
	Doubt Clearing Session	20/03/2026		
	Graphs of Cos x and Tan x.	23/03/2026		
	Doubt Clearing Session	24/03/2026		
<b>UNIT-III</b>	Important formulae of Differentiation	25/03/2026		
	Doubt Clearing Session	27/03/2026		
	Rules for Differentiation	30/03/2026		
	Doubt Clearing Session	31/03/2026		
	Rules for Differentiation	01/04/2026		
	Differentiation of sum, product and quotient of functions.	02/04/2026 06/04/2026		
	Doubt Clearing Session	07/04/2026		
	Differentiation of sum, product and quotient of functions	08/04/2026 09/04/2026		
	Class Test-II	10/04/2026		
	Integration as inverse operation of differentiation	13/04/2026 16/04/2026		
	Doubt Clearing Session	17/04/2026		
	Integration as inverse operation of differentiation	20/04/2026		
	Doubt Clearing Session	21/04/2026		
	Simple integration by substitution	22/04/2026 23/04/2026		
	Doubt Clearing Session	24/04/2026		
	Simple integration by parts	27/04/2026		
	Doubt Clearing Session	28/04/2026		
	Simple integration by parts	29/04/2026 30/04/2026		
	Simple integration by partial fractions (for linear factors only).	04/05/2026		
	Doubt Clearing Session	05/05/2026		

	Simple integration by partial fractions (for linear factors only).	06/05/2026 07/05/2026		
	Doubt Clearing Session	08/05/2026		
	House Test	11/05/2026 To 14/05/2026		
<b>UNIT-V</b> <b>Mensuration</b>	Surface area and volume of solid shapes (cube, cuboid, sphere, right circular cylinder, right circular cone).	15/05/2026 18/05/2026		
	Doubt Clearing Session	19/05/2026		
	Surface area and volume of solid shapes (cube, cuboid, sphere, right circular cylinder, right circular cone).	20/05/2026 21/05/2026		
	Doubt Clearing Session	22/05/2026		
	Surface area and volume of solid shapes (cube, cuboid, sphere, right circular cylinder, right circular cone).	25/05/2026		
	Doubt Clearing Session	26/05/2026		

### Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Matrices and Determinants, Vector algebra & Trigonometry	25/03/2026		
A-2	Differential and Integral calculus	07/05/2026		

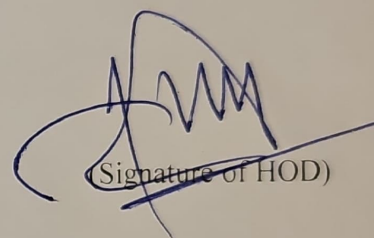
### House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	30% of the syllabus	As per HPTSB Academic Schedule		
Class Test -2	Next 30% of the syllabus			
House Test - 1	80% of the syllabus-4			



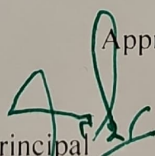
(Signature of Teacher)

Dr. Keena Kumari



(Signature of HOD)

Approved



Principal  
Govt. Polytechnic for Women  
Rehah Distt. Kangra (H.P.)