

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 nd
Subject Teacher Name	Sandeep Kumar

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		(v) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition, 2007 (vi) S.S. Sabharwal, Sunita Jain, Eagle Parkashan, Applied 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

	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-I	Introduction of Matrices & Determinants	29/01/2024		
	Doubt Clearing Session	30/01/2024		
	Matrices	31/01/2024		
	Doubt Clearing Session	01/02/2024		
	Algebra of matrices	05/02/2024		
	Doubt Clearing Session	06/02/2024		
	Determinants	07/02/2024		
	Doubt Clearing Session	08/02/2024		
		09/02/2024		

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Matrices and Determinants	Determinants	12/02/2024		
	Doubt Clearing Session	13/02/2024		
	Value of determinants of 2nd & 3rd order	14/02/2024		
	Doubt Clearing Session	15/02/2024		
	Value of determinants of 2nd & 3rd order	16/02/2024		
	Doubt Clearing Session	19/02/2024		
	Crammer's rule for solving two variables and three variables linear equations	20/02/2024		
	Doubt Clearing Session	21/02/2024		
	Adjoint & Inverse of a matrix	22/02/2024		
	Doubt Clearing Session	23/02/2024		
	Matrix inverse method to solve a system of linear equations in two and three variables	26/02/2024		
	Doubt Clearing Session	27/02/2024		
	Doubt Clearing Session	28/02/2024		
	Doubt Clearing Session	29/02/2024		
UNIT-II Vector Algebra and Trigonometry	Matrix inverse method to solve a system of linear equations in two and three variables	01/03/2024		
	Doubt Clearing Session	04/03/2024		
	Doubt Clearing Session	05/03/2024		
	Introduction of Vector Algebra	06/03/2024		
	Notation and rectangular resolution of a vector	07/03/2024		
	Doubt Clearing Session	11/03/2024		
	Doubt Clearing Session	12/03/2024		
	Addition and subtraction of vectors.	13/03/2024		
	Scalar and vector products of 2 vectors.	14/03/2024		
	Doubt Clearing Session	15/03/2024		
	Concept of angles in Trigonometry	18/03/2024		
	Class Test-1	19/03/2024		
	Measurement of angles in degrees	20/03/2024		
	Doubt Clearing Session	21/03/2024		
	Doubt Clearing Session	22/03/2024		
	Doubt Clearing Session	26/03/2024		
	Grades and radians and their conversions.	27/03/2024		
	Doubt Clearing Session	28/03/2024		
	T-Ratios of Allied angles (without proof)	01/04/2024		
	Doubt Clearing Session	02/04/2024		
T-Ratios of Allied angles (without proof)	03/04/2024			
Doubt Clearing Session	04/04/2024			
Doubt Clearing Session	05/04/2024			
Graphs of Sin x, Cos x and Tan x.	08/04/2024			

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	Doubt Clearing Session	09/04/2024		
UNIT-III	Important formulae of Differentiation	10/04/2024		
	Doubt Clearing Session	12/04/2024 16/04/2024		
	Rules for Differentiation	18/04/2024		
	Class Test-2	19/04/2024		
	Differentiation of sum, product and quotient of functions.	22/04/2024		
	Doubt Clearing Session	23/04/2024		
	Differentiation of sum, product and quotient of functions.	24/04/2024 25/04/2024		
	Doubt Clearing Session	26/04/2024		
UNIT- IV	Integration as inverse operation of differentiation	29/04/2024		
	Doubt Clearing Session	30/04/2024		
	Simple integration by substitution	01/05/2024		
	Simple integration by parts	02/05/2024		
	Doubt Clearing Session	03/05/2024		
	Simple integration by parts	06/05/2024		
	Doubt Clearing Session	07/05/2024		
	Simple integration by partial fractions (for linear factors only).	08/05/2024 09/05/2024 12/05/2024		
	House Test	13/05/2024 To 15/05/2024		
	Simple integration by partial fractions (for linear factors only).	16/05/2024		
	Doubt Clearing Session	17/05/2024		
UNIT-V	Mensuration	Surface area and volume of solid shapes (cube, cuboid, sphere, right circular cylinder, right circular cone).	20/05/2024	
		Doubt Clearing Session	21/05/2024	
	Surface area and volume of solid shapes (cube, cuboid, sphere, right circular cylinder, right circular cone).	22/05/2024 23/05/2024		
	Doubt Clearing Session	24/05/2024		

58

Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1	04/03/2024		
A-2	Unit-2	05/04/2024		
A-3	Unit-3	06/05/2024		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1	As per HPISB Academic Schedule		
Class Test -2	Unit-2			
House Test - 1	Unit-1, Unit-2, Unit-3 and Unit-4			

(Signature of Teacher)

(Signature of HOD)

Approved
Principal
Govt. Polytechnic for Women
Rehan Distt. Kangra (H.P.)
27.1.24