

Department of Architecture	
LESSON PLAN	
Program Name	Architecture Assistantship
Subject Name	BUILDING MATERIAL & CONSTRUCTION-IV
Subject Code	ARBS&AE – 5002
Semester	Fifth
Subject Teacher Name	Rajinder Kumar

Evaluation Scheme

Sr. No	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	Pr	Th	Pr	Total	Th	Pr	Total
1	Building Material & Construction-IV	1	6	40	40	80	60	60	120

Reference Books	The Construction of Buildings", Vol. 2, R Barry, Wiley, 2001
	Construction Technology" Vol. 1, Roy Chudley, Roger Greeno, Prentice Hall (UK), 2005.

Course Outcomes (COs)

CO – 1	Students will understand the construction system and importance of interior building components in different materials.
CO – 2	Students will appreciate various design intent and materials used for false ceilings, paneling ETC. & Students will understand the basics and usage of prefabrication in building construction.

Teaching Plan

Chapters	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-I Timber	Detailed drawings of false ceiling	05-08-2026		
	Introduction to various materials, (TH.)	06-08-2026		
	Detailed drawings of false ceiling	11-08-2026		
	Detailed drawings of false ceiling	12-08-2026		
	Products and hardware for false ceiling. (TH.)	13-08-2026		
	Detailed drawings of Curtain and Partition walls	18-08-2026		
	Detailed drawings of Curtain and Partition walls	19-08-2026		
	Curtain walls and Partition walls (TH.)	20-08-2026		
	Detailed drawings of Curtain and Partition walls (DCS)	22-08-2026		
	Detailed drawings of Curtain and Partition walls	25-08-2026		
	Detailed drawings of boundary wall and gate.	26-08-2026		
	Introduction to Cladding materials of walls (TH.)	27-08-2026		
UNIT-II Wooden Joinery	Detailed drawings of boundary wall and gate. (DCS)	29-08-2026		
	Detailed drawings of boundary wall and gate.	01-09-2026		
	Detailed drawings of Brick Stones, tiles, Paneling Cladding	02-09-2026		
	Brick tiles, Stones, Vitreous tiles, Paneling (TH.)	03-09-2026		
	Class Test-I	05-09-2026		
	Detailed drawings of Brick Stones, tiles, Paneling Cladding	08-09-2026		
	Detailed drawings of Brick Stones, tiles, Paneling Cladding	09-09-2026		
	Introduction to Expansion joints and construction joints (TH.)	10-09-2026		
	Detailed drawings of Expansion & construction joints (DCS)	15-09-2026		
	Detailed drawings of Expansion & construction joints	16-09-2026		
	Conventions for doors and windows (TH.)	17-09-2026		
	Detailed drawings of Expansion & construction joints (DCS)	19-09-2026		
	Detailed drawings of Expansion & construction joints	22-09-2026		
	Detailed drawings of Expansion & construction joints	23-09-2026		

UNIT-III Wooden Stairs & Floor	Aluminum doors and windows types and their uses (TH.)	24-09-2026		
	Detail drawings of Aluminum doors and windows (DCS)	26-09-2026		
	Detail drawings of Aluminum doors and windows	29-09-2026		
	Detail drawings of Aluminum doors and windows	30-09-2026		
	Detail drawings of Aluminum doors and windows (TH.)	01-10-2026		
	Detail drawings of Aluminum doors and windows	03-10-2026		
	Introduction to PVC and UPVC for doors	06-10-2026		
	Detail drawings of Aluminum doors and windows	07-10-2026		
	Class Test-II	08-10-2026		
	Form-work for RCC columns, beams,	13-10-2026		
	Form-work for RCC columns, beams,	14-10-2026		
	Introduction to PVC and UPVC for doors (TH.)	15-10-2026		
	Form-work for RCC columns, beams, (DCS)	17-10-2026		
	Form-work for RCC columns, beams,	21-10-2026		
	Form-work for RCC columns, beams, (TH.)	22-10-2026		
	Aluminum doors and windows types and their uses	24-10-2026		
	Form-work for RCC slabs, walls and stairs (DCS)	27-10-2026		
	Form-work for RCC slabs, walls and stairs	28-10-2026		
	Aluminum doors and windows types and their uses (TH.)	29-10-2026		
	Aluminum doors and windows types and their uses	31-10-2026		
UNIT-IV Roof & Roof Covering	House Test	03-11-2026		
	House Test	04-11-2026		
	Form-work for RCC slabs, walls and stairs (TH.)	05-11-2026		
	Form-work for RCC slabs, walls and stairs	07-11-2026		
	Form-work for RCC slabs, walls and stairs	10-11-2026		
	Shoring, underpinning, scaffolding	11-11-2026		
	Form-work for RCC slabs, walls and stairs (TH.)	12-11-2026		
	Form-work for RCC slabs, walls and stairs	17-11-2026		
	Form-work for RCC slabs, walls and stairs	18-11-2026		
	Form-work for RCC slabs, walls and stairs (TH.)	19-11-2026		
	Form-work for RCC slabs, walls and stairs	21-11-2026		
	Form-work for RCC slabs, walls and stairs	25-11-2026		
	Form-work for RCC slabs, walls and stairs (TH.)	26-11-2026		
	Form-work for RCC slabs, walls and stairs	28-11-2026		

Sig. of Teacher

Sig. of H.O.D.

DEPARTMENT OF ARCHITECTURAL ASSISTANTSHIP
DR. B. AMBEDKAR GOVT. POLYTECHNIC AMBOTA DISTT UNA H.P.

LESSON PLAN

Programme Name	Architecture Assistantship
Subject Name	Architecture Design -V
Subject Code	ARPC-5001
Semester	Fifth
Subject Teacher name	Ar. Rajeev Bhardwaj

Evaluation Scheme

S. No.	Subject Name	Study Scheme (Hrs/Week)	Marks In Evaluation Scheme					
			Internal Assesment			External Assesment		
			Th.	Pr.	Total	Th.	Pr.	Total
1	Arch. Design - V	1(Th),6 (Pr)	40	40	80	60	60	120
Reference Books		Time Saver Standard for Arch. Design Data , Donald Watson McGrahills 15 Time Saver Standard for Building Types , Joseph De Chiara McGrahills , New York						

Course Outcome

CO-I	To understand the functional /planning aspects of institutional buildings.
CO-II	To explore and learn the design intricacies of buildings of specific functions.
CO-III	To Familiarize with the concept of multistory structure

Teaching Plan

Unit No.	Name Of Topic	Month	Proposed Date	Actual Date	Remarks
Unit-I	Design of an institute campus such as Architecture, Medical, Law, Business, Music and Dance colleges, vocational training institutions etc. with detailed design of academic and library block. Emphasis on design with Barrier Free Environment can be explored during this exercise	August	6		
			10,11,12,13		
			17,18,19,20		
			24,25,26,27		
			31		
		Sept.	1,2,3		
			7,8,9,10		
			14,15,16,17		
			21,22,23,24		
			28,29,30		
Unit-II	Design of Housing/Multistory building with emphasis on construction system and vertical circulation	Oct.	1,5,6,7		
			8,12,13,14		
			15,19,20,21		
			21,23,24,25		
			22,26,27,28		
		Nov.	29		
			2,3,4,5		
			9,10,11,12		
			16,17,18,19		
			23,24,25,26		
			30		

Assignments/ Submissions:-

Assignment/ Submission No. 1	Contents Of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-I	30-08-2026		
A-2	Unit-II	28-10-2026		

House Test/ Class Test

Name Of Test	Syllabus Fot Test	Proposed Date	Actual Date	Remarks
Class Test -I	Unit-I	16-09-2026		
Class Test -II	Unit-II	14-10-2026		
House Test	Unit-III	Nov Ist Week		

Sign Of Teacher

Approved

Sign Of H.O.D.

Principal
 Dr. B. R. Ambedkar Govt Polytechnic
 Ambota Distt Una H.P.

DEPARTMENT OF ARCHITECTURE ASSISTANTSHIP
DR. B. R. AMBEDKAR GOVT. POLYTECHNIC AMBOTA , DISTT UNA H.P.

LESSON PLAN

Programme Name	Architecture Assistantship
Subject Name	Structure Design -II
Subject Code	ARPC 5003
Semester	Fifth
Subject Teacher name	Ar. Rajeev Bhardwaj

Evaluation Scheme

S. No.	Subject Name	Study Scheme (Hrs/Week)	Marks In Evaluation Scheme					
			Internal Assesment			External Assesment		
			Th.	Pr.	Total	Th.	Pr.	Total
1	Structure Design-II	3 (Th)	40		40	60		60
Reference Books		"R.C.C. Designs (Reinforced Concrete Structures)", Dr. B.C. Punmia, Ashok Kumar Jain and Arun Kumar Jain, Laxmi; Tenth edition, 2006. R.C.C. Design by Birinder Singh, Kapson Publications						

Course Outcome

CO-I	The student shall have developed the necessary skills to understand the basic concepts, terminologies, thumb rule and design processes related to RCC design and steel structures.
CO-II	Students will be able to understand and implement the Limit state method of structural analysis in architecture design.
CO-III	The student will be able to give structural design of components of RCC building.

Teaching Plan

Unit No.	Name Of Topic	Month	Proposed Date	Actual Date	Remarks
Unit-I	Introduction: - Materials, basis properties of concrete and steel, Reinforcement, standard loading, characteristics strength,	August	10,11,13		
	Permissible stresses in Concrete and steel as per Indian Standard, Design Philosophies- Working Method, Ultimate Load, Method and Limit state Method.		17,18,20		
	Limit State Design Method {as per IS: 456 (2000)} Safety and serviceability requirements, limit states,		24,25,27		
	Characteristic material strength and loads and partial safety factors.		31		
Unit -II	Calculation of moment of resistance of a simply supported beam.	Sept.	1,3,7		
	Design of singly reinforced rectangular simply supported beam as per IS Code.		8,10,14		
	Design of one way simply supported slab. Concept of two way slab with the help of IS:456		15,17,21		
	Design of axially loaded long and short columns as per IS:456		22,25,28,29		
Unit -III	Steel Structural Elements: Classification of sections in Limit State Method, Grades of Structural Steel,	Oct.	1,5,6		
	Terminology & Properties , Structural Connections: Bolted connections- types of Bolts, forces in Bolts, types of Bolted joints with Sketches.		8,12,13		
	Welded connections- types of welds, forces in welds, type, defects in welds.		15,19,20		
	Welded connections- types of welds, forces in welds, type, Defects in welds.		22,26,27		
			29		

Unit -IV	Introduction to the concept of beams, column with single RS section as per IS: 800 and handbook.	Nov.	2,3,5		
	Introduction to the concept of beams, column with single RS section as per IS: 800 and handbook.		9,10,12		
	Hollow sections: General Shapes (Hot Rolled & Cold Form) and advantages & Applications.		16,17,19		
	Hollow sections: General Shapes (Hot Rolled & Cold Form) and advantages & Applications.		23,24,26		

Assignments/ Submissions:-

Assignment/ Submission	Contents Of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-I & Unit -II	21-09-2026		
A-2	Unit-III	26-10-2026		
A-3	Unit-IV	23-11-2026		

House Test/ Class Test

Name Of Test	Syllabus Fot Test	Proposed Date	Actual Date	Remarks
Class Test -I	Unit-I	14-09-2026		
Class Test -II	Unit-II & Unit -III	13-10-2026		
House Test	Unit -I to Unit-IV	Nov Ist Week		

Sign Of Teacher

Approved

Sign Of H.O.D.

Principal
DR. B. R. Ambedkar Govt Polytechnic
Ambota Distt Una H.P.