

## LESSION PLAN

NAME OF THE FACULTY : SUNIL RAI, PRIYA, KULDEEP

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 5<sup>th</sup>

SUBJECT : EMPLOYABILITY SKILL-I

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 02

WEEK	LECTURE DAY	THEORY
		TOPIC
1 <sup>ST</sup>	1.	Writing skills
	2.	Writing skills - business correspondence
2 <sup>ND</sup>	3.	Writing skills - Official correspondence
	4.	Job application
3 <sup>RD</sup>	5.	Job application - covering letter
	6.	Job application – resume
4 <sup>TH</sup>	7.	Relation between covering letter and resume
	8.	Report writing - key features
5 <sup>TH</sup>	9.	Report writing – kinds
	10.	IST SESSIONAL TEST
6 <sup>TH</sup>	11.	Oral Communication Skills
	12.	Giving advice
7 <sup>TH</sup>	13.	Making comparisons

	14.	Agreeing Oral Communication
8 <sup>TH</sup>	15.	Disagreeing Oral Communication
	16.	Taking turns in conversation
9 <sup>TH</sup>	17.	Fixing appointments
	18.	cancelling appointments
10 <sup>TH</sup>	19.	Difference between Fixing and cancelling appointments
	20.	2ND SESSIONAL TEST
11 <sup>TH</sup>	21.	Generic Skills
	22.	Stress management
12 <sup>TH</sup>	23.	Time management
	24.	Stress management
13 <sup>TH</sup>	25.	Time management
	26.	Negotiations and conflict resolution
14 <sup>TH</sup>	27.	Relation between Negotiations and conflict resolution
	28.	Team work and leadership qualities
15 <sup>TH</sup>	29.	Relation between Team work and leadership qualities
	30.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : SEREBDEEP KAUR , SURBHI  
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP  
SEMESTER : 5<sup>th</sup>  
SUBJECT : ENVIRONMENTAL EDUCATION  
LESSION PLAN DURATION : 15 WEEKS  
WORK LOAD PER WEEK : 03

WEEK	LECTURE DAY	THEORY
		TOPIC
1 <sup>ST</sup>	1.	Definition of Environmental Education
	2.	Scope of Environmental Education
	3.	Importance of Environmental Education
2 <sup>ND</sup>	4.	Basics of ecology
	5.	Biodiversity of ecology
	6.	Eco system of ecology
3 <sup>RD</sup>	7.	Sustainable development of ecology
	8.	Sources of pollution - natural and manmade
	9.	Causes of pollution
4 <sup>TH</sup>	10.	Effects of pollution
	11.	control measures of pollution (air, water, noise, soil, radioactive and nuclear)
	12.	control measures of pollution units of measurement

5 <sup>TH</sup>	13.	Solid waste management
	14.	Causes of Solid waste management
	15.	IST SESSIONAL TEST
6 <sup>TH</sup>	16.	Effects of Solid waste management
	17.	Control measures of urban and industrial waste management
	18.	Mining and deforestation
7 <sup>TH</sup>	19.	Causes of Mining and deforestation
	20.	effects of Mining and deforestation
	21.	control measures of Mining and deforestation
8 <sup>TH</sup>	22.	Environmental Legislation
	23.	Water (prevention) Act 1974
	24.	Water (control of pollution) Act 1974
9 <sup>TH</sup>	25.	Air (Prevention) Act 1981
	26.	Air (Control of Pollution) Act 1981
	27.	Environmental Protection Act 1986.
10 <sup>TH</sup>	28.	Role of State Pollution Control Board
	29.	Function of State Pollution Control Board
	30.	2ND SESSIONAL TEST
11 <sup>TH</sup>	31.	Environmental Impact Assessment (EIA)
	32.	Role of Non-conventional Energy Resources (Solar Energy)
	33.	Role of Non-conventional Energy Resources (Wind Energy)
12 <sup>TH</sup>	34.	Role of Non-conventional Energy Resources (Hydro Energy)
	35.	Current Issues in Environmental Pollution
	36.	Global Warming

13 <sup>TH</sup>	37.	Green House Effect
	38.	Depletion of Ozone Layer
	39.	Recycling of Material
14 <sup>TH</sup>	40.	Environmental Ethics
	41.	Rain Water Harvesting
	42.	Maintenance of Groundwater
15 <sup>TH</sup>	43.	Acid Rain
	44.	Carbon Credits
	45.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : KAPIL  
DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP  
SEMESTER : 5<sup>th</sup>  
SUBJECT : R.C.C  
LESSON PLAN DURATION : 15 WEEKS  
WORK LOAD PER WEEK : 06

WEEK	LECTURE DAY	THEORY
		TOPIC
1 <sup>ST</sup>	1.	Introduction and Concept of Reinforced Cement Concrete (RCC)
	2.	Reinforcement Materials: - Suitability of steel as reinforcing material - Physical properties of mild steel and HYSD/TMT steel
2 <sup>ND</sup>	3.	Loading on structures as per IS: 875
	4.	Introduction to following methods of RCC design
3 <sup>RD</sup>	5.	Working stress method, Limit state method
	6.	Shear and Development Length
4 <sup>TH</sup>	7.	Shear as per IS:456-2000 by working stress method
	8.	Shear strength of concrete without shear reinforcement
5 <sup>TH</sup>	9.	Maximum shear stress, Shear reinforcement
	10.	IST SESSIONAL TEST
6 <sup>TH</sup>	11.	Basic assumptions of Singly Reinforced Beam (working stress method)
	12.	Stress strain curve
7 <sup>TH</sup>	13.	Neutral axis, balanced, under reinforcement and over reinforced beams,
	14.	Moment of resistance for singly reinforced beam.

8 <sup>TH</sup>	15.	Design of singly reinforced beam including sketches showing reinforcement details
	16.	Concept of Limit State Method (as per IS 456:2000)
9 <sup>TH</sup>	17.	Definitions and assumptions made in limit state of collapse (flexure)
	18.	Partial factor of safety for materials, Partial factor of safety for loads
10 <sup>TH</sup>	19.	Design loads, Stress block diagram
	20.	2ND SESSIONAL TEST
11 <sup>TH</sup>	21.	Theory and Design of singly reinforced beam by Limit State Method
	22.	Doubly Reinforced Beams, Theory and design of simply supported doubly reinforced rectangular beam by Limit State Method
12 <sup>TH</sup>	23.	Behaviour of T beam, inverted T beam, isolated T beam and 'L' beams (No Numericals)
	24.	Theory and design of simply supported one way slab including sketches showing reinforcement details (plan and section) by Limit State Method.
13 <sup>TH</sup>	25.	Theory and design of two-way simply supported slab with corners free to lift, no provisions for torsional reinforcement by Limit State Method including sketches showing reinforcement details (plan and two sections)
	26.	Axially Loaded Column- Definition and classification of columns, Effective length of column, Specifications for longitudinal and lateral reinforcement
14 <sup>TH</sup>	27.	Design of axially loaded square, rectangular and circular (with lateral ties only) short columns by Limit State Method including sketching of reinforcement (sectional elevation and plan)
	28.	Concept of foundation: shallow and deep foundation, types and suitability of foundation (no numerical)
15 <sup>TH</sup>	29.	Concept of pre-stressed concrete, advantages and disadvantages, Methods of pre-stressing
	30.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : PARDIP KUMAR MITTAL ,PRIYA, ,NISHA

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 5<sup>th</sup>

SUBJECT : WORKING DRAWING - II

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 06

WEEK	LECTURE DAY	PRACTICAL
		TOPIC
1 <sup>ST</sup>	1.	Preparation of working drawings in ink or on AutoCAD/computer of a two or three storeyed building already dealt with in the design project:
	2.	Site Plan of a two or three storeyed building
2 <sup>ND</sup>	3.	Foundation layout plan of a two or three storeyed building
	4.	Foundation layout plan of a two or three storeyed building
3 <sup>RD</sup>	5.	Foundation sectional details of a two or three storeyed building
	6.	Ground Floor Plan of a two or three storeyed building
4 <sup>TH</sup>	7.	Upper Floor Plans (one for each floor)
	8.	Upper Floor Plans (2 <sup>nd</sup> floor plan)
5 <sup>TH</sup>	9.	Upper Floor Plans (3 <sup>rd</sup> floor plan)
	10.	IST SESSIONAL TEST
6 <sup>TH</sup>	11.	Terrace Plan with rainwater drainage and disposal details
	12.	Terrace Plan with proper dimensioning
7 <sup>TH</sup>	13.	Terrace Plan with specifications so that it may be used for site execution specifications so that it may be used for site execution
	14.	Built-in furniture e.g. side boards, wardrobes, cupboards, niches etc in plan.

8 <sup>TH</sup>	15.	Built-in furniture e.g. side boards, wardrobes, cupboards, niches etc in plan.
	16.	Draw 2 elevations of a given plan. (front and side view)
9 <sup>TH</sup>	17.	Draw 2 sections of a given plan. (front and side view)
	18.	Entrance gate with proper details.
10 <sup>TH</sup>	19.	Boundary wall with proper details.
	20.	2ND SESSIONAL TEST
11 <sup>TH</sup>	21.	Railing with proper details.
	22.	Electrical layout plan of an already handled design project
12 <sup>TH</sup>	23.	Electrical layout plan of an already handled design project
	24.	Specification of electrical symbols details
13 <sup>TH</sup>	25.	Water supply layout plan of an already dealt design project.
	26.	Sewage & drainage layout plan of an already dealt design project.
14 <sup>TH</sup>	27.	Fire fighting layout plan of an already dealt design project.
	28.	Water supply, sewage & drainage layout plan & fire fighting layout of an already dealt design project.
15 <sup>TH</sup>	29.	Water supply, sewage & drainage layout plan & fire fighting layout of an already dealt design project.
	30.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : PARDIP MITTAL, RAJESH, KULDEEP

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 5<sup>th</sup>

SUBJECT : BUILDING CONSTRUCTION - IV

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 06

WEEK	LECTURE DAY	PRACTICAL
		TOPIC
1 <sup>ST</sup>	1.	Riveted Connections and Welded Joints
	2.	Draw Riveted joint Connections
2 <sup>ND</sup>	3.	Draw Welded Joints connections
	4.	Steel Sections - Draw Steel doors using standard rolled sections ( plan, section and elevation)
3 <sup>RD</sup>	5.	Steel Sections - Draw Steel windows using standard rolled sections ( plan, section and elevation)
	6.	Steel Sections - Draw Rolling structure ( plan, section and elevation)
4 <sup>TH</sup>	7.	Steel Sections - Draw collapsible structure ( plan, section and elevation)
	8.	Technical terms of Steel Sections
5 <sup>TH</sup>	9.	Steel Roofs
	10.	IST SESSIONAL TEST
	11.	Technical terms of Steel Roofs

6 <sup>TH</sup>	12.	Line diagram of steel roofs for various spans
7 <sup>TH</sup>	13.	Draw the Line diagram of steel roofs for various spans
	14.	Construction details of steel roofs
8 <sup>TH</sup>	15.	Draw the Construction details of steel roofs
	16.	Roof covering: AC, GI sheets
9 <sup>TH</sup>	17.	Draw the Roof covering: AC, GI sheets
	18.	North light truss
10 <sup>TH</sup>	19.	North light truss
	20.	2ND SESSIONAL TEST
11 <sup>TH</sup>	21.	Frame and Sealed Connections Built Up Steel Columns and Beams
	22.	Draw Frame and Sealed Connections Built Up Steel Columns
12 <sup>TH</sup>	23.	Draw Frame and Sealed Connections Built Up Steel Beams
	24.	Beam to beam framed connection
13 <sup>TH</sup>	25.	Beam to column framed connection
	26.	Beam to column seated connection
14 <sup>TH</sup>	27.	Draw Beam to beam framed connection
	28.	Draw Beam to column framed connection
15 <sup>TH</sup>	29.	Draw Beam to column seated connection
	30.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : PREYANK SHORI, SEREBDEEP KAUR,  
 DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP  
 SEMESTER : 5<sup>th</sup>  
 SUBJECT : ARCHITECTURAL DESIGN - IV  
 LESSON PLAN DURATION : 15 WEEKS  
 WORK LOAD PER WEEK : 08

WEEK	LECTURE DAY	THEORY
		TOPIC
1 <sup>ST</sup>	1.	Introduction Two exercises of upto 3-storied buildings of 8 weeks duration each to be done individually. The exercise could be any of the following:
	2.	<b>a) Small housing complex.</b> Preparation of site plan for small housing complex Special Emphasis to be laid on site planning. Services, Parking. Note: 1. Case study and library study must be done for each exercise. Note: 2 Site Visits and related case studies to be carried out
2 <sup>ND</sup>	3.	Drawing ground floor plan of small housing complex.
	4.	Drawing 1 <sup>st</sup> , 2 <sup>nd</sup> and terrace floor plan of small housing complex.
3 <sup>RD</sup>	5.	Preparation of two elevations of small housing complex
	6.	Preparation of two sections of small housing complex.
4 <sup>TH</sup>	7.	<b>b) Museum, exhibition centre.</b> Preparation of site plan for Museum, exhibition centre
	8.	Drawing ground floor plan of Museum, exhibition centre.
5 <sup>TH</sup>	9.	Drawing 1 <sup>st</sup> , 2 <sup>nd</sup> and terrace floor plan of Museum, exhibition centre.
	10.	IST SESSIONAL TEST
6 <sup>TH</sup>	11.	Preparation of two elevations of Museum, exhibition centre
	12.	Preparation of two sections of Museum, exhibition centre
7 <sup>TH</sup>	13.	<b>c) Motel</b> Preparation of site plan for Motel.

	14.	Drawing ground floor plan of Motel.
8 <sup>TH</sup>	15.	Drawing 1 <sup>st</sup> , 2 <sup>nd</sup> and terrace floor plan of Museum, exhibition centre.
	16.	Preparation of two elevations of Museum, exhibition centre.
9 <sup>TH</sup>	17.	Preparation of two sections of Museum, exhibition centre.
	18.	<b>d) Shopping centre</b> Preparation of site plan for Shopping centre
10 <sup>TH</sup>	19.	Drawing ground floor plan of Shopping centre
	20.	2ND SESSIONAL TEST
11 <sup>TH</sup>	21.	Drawing 1 <sup>st</sup> , 2 <sup>nd</sup> and terrace floor plan of Shopping centre.
	22.	Preparation of two elevations of Shopping centre.
12 <sup>TH</sup>	23.	Preparation of two sections of Shopping centre.
	24.	<b>e) High school</b> Preparation of site plan for High school
13 <sup>TH</sup>	25.	Drawing ground floor plan of High school.
	26.	Drawing 1 <sup>st</sup> , 2 <sup>nd</sup> and terrace floor plan of High school
14 <sup>TH</sup>	27.	Preparation of two elevations of High school
	28.	Preparation of two sections of High school
15 <sup>TH</sup>	29.	Preparation of two sections of High school
	30.	3RD SESSIONAL TEST

## LESSON PLAN

NAME OF THE FACULTY : SUNIL RAI, PREYANK SHORI, KULDEEP

DISCIPLINE : ARCHITECTURAL ASSISTANTSHIP

SEMESTER : 5<sup>th</sup>

SUBJECT : COMPUTER APPLICATION - II

LESSON PLAN DURATION : 15 WEEKS

WORK LOAD PER WEEK : 08

WEEK	LECTURE DAY	THEORY
		TOPIC
1 <sup>ST</sup>	1.	The design problem done in 4 <sup>th</sup> semester as main project shall be taken up for preparing a complete set of drawings. These include all plans showing all interior layouts, joinery schedule, tree plantations, parking layout etc.
2 <sup>ND</sup>	2.	The design problem done in 4 <sup>th</sup> semester as main project shall be taken up for preparing a elevations (minimum 2) and sections (2 minimum)
3 <sup>RD</sup>	3.	Fundamentals of 3-D Drafting , Basic Features such as box, wedge, cylinder, torus etc.
4 <sup>TH</sup>	4.	Coordinate system, 3-D entities and surfaces such as boundary, resign (Converting simple geometric shapes into 3-D Objects)
5 <sup>TH</sup>	5.	1ST SESSIONAL TEST
6 <sup>TH</sup>	6.	Making an existing 2-D plan drawing compatible to 3-D drafting (Commands and modifications to 2-D drawings, B. Poly, rectangle, elevation, extrude – requirements and applications)
7 <sup>TH</sup>	7.	3-D of exterior of blocks – preparation, modification of 2-D drawing 3-D of interiors of block – preparation, modification of 2-D drawings
8 <sup>TH</sup>	8.	3-D Modeling such as extrude, press pull, spline, subtract, unian etc.
9 <sup>TH</sup>	9.	Visual style like 2D Wire frame, 3D Wire frame, surface 3D hidden wire frame etc.
10 <sup>TH</sup>	10.	2ND SESSIONAL TEST

11 <sup>TH</sup>	11.	3-D solid modeling and Viewing 3-D models like front view, top view, side view and isometric views.
12 <sup>TH</sup>	12.	Rendering, shading , hide commands, lights and Camera, Material representation, Importing, exporting library and printing 3-D
13 <sup>TH</sup>	13.	Demonstration of 3D max, Corel Draw, Adobe Photoshop as rendering tool for 3D blocks/ walk through etc.
14 <sup>TH</sup>	14.	Converting simple geometrical shapes into 3-D objects 2. Students will take their second year design proposals and convert them in 3-dimensional presentation models
15 <sup>TH</sup>	15.	<b>3RD SESSIONAL TEST</b>