Dr. B.R. Ambedkar Govt. Polytechnic, Ambota Una (H.P.)

Department of Civil Engineering

LESSON PLAN

Program Name	Diploma in Civil Engineering
Course/Subject Name	Hydraulics
Course/Subject Code	N-2022 / CEPC202
Course/Subject Co-ordinator Name	Amandeep Singh

Evaluation Scheme

Sr. No.	Subject Name	Study Scheme			Evaluation Scheme						Total Marks (Int. & Ext.)
		L	BS	Total	Internal Assessment			External Assessment			
1	Hydraulics	2	2	4 Hrs./week	Th.	Pr.	T	Th.	Hrs.	T	
					40	-	40	60	3	60	100
Reference Books		Modi, P. N. and Seth, S.M., Hydraulics and Fluid Mechanics. Standard book house.									
		Khurmi R S, Hydraulics, Fluid Mechanics, Hydraulic machines. S. Chand Publishers									
		Rajput, R K, Fluid Mechanics, S Chand, New Delhi.									

Teaching Plan

Unit No.	Name of Topic	Proposed Week	Actual Date	Remarks
1	Technical terms used in Hydraulics –fluid, fluid mechanics, hydraulics, hydrostatics, and hydrodynamics - ideal and real fluid, application of hydraulics	1st Week (27/01/2025-01/02/2025)		
1	Physical properties of fluid – density-specific volume, specific gravity, surface tension, capillarity, and viscosity-Newton's law of viscosity.	1st Week (27/01/2025-01/02/2025)		
1	Various types of pressure – Atmospheric Pressure, Gauge Pressure, Absolute Pressure, Vacuum Pressure.	2nd Week (03/02/2025-10/02/2025)		

	Concept of Pressure head and its unit, Pascal's law of fluid pressure and its uses, Measurement of differential Pressure by different methods.	2nd Week (03/02/2025-10/02/2025)		
1	Variation of pressure with depth, Pressure diagram, hydrostatic pressure and center of pressure on immersed surfaces and on tank walls.	3rd Week (11/02/2025-18/02/2025)		
1	Determination of total pressure and center of pressure on sides and bottom of water tanks, sides and bottom of tanks containing two liquids,	4th Week (19/02/2025-25/02/2025)		
1	Vertical surface in contact with liquid on either side	4th Week (19/02/2025-25/02/2025)		
2	Types of flow – Gravity and pressure flow, Laminar, Turbulent, Uniform, Non-uniform, Steady, Unsteady flow. Reynolds number	5th Week (27/02/2025-05/03/2025)		
2	Discharge and its unit, continuity equation of flow.	5th Week (27/02/2025-05/03/2025)		
2	Energy of flowing liquid: potential, kinetic and pressure energy.	6th Week (06/03/2025-13/03/2025)		
2	Bernoulli's theorem: statement, assumptions, equation.	6th Week (06/03/2025-13/03/2025)		
3	Major Head loss in pipe: Frictional loss and its computation by Darcy's Welsbach equation.	7th Week (15/03/2025-21/03/2025)		
3	Minor losses in pipe: loss at entrance, exit, sudden contraction, sudden enlargement, and fittings.	7th Week (15/03/2025-21/03/2025)		
3	Flow through pipes in series, pipes in parallel and Dupuit's equation for equivalent pipe.	8th Week (22/03/2025-28/03/2025)		
3	Hydraulic gradient line and total energy line.	9th Week (29/03/2025-05/04/2025)		
4	Geometrical properties of channel section: Wetted area,	10th Week (07/04/2025-		

	wetted perimeter, hydraulic radius for rectangular and trapezoidal channel section.	16/04/2025)		
4	Determination of discharge by Chezy's equation and Manning's equation.	11th Week (17/04/2025-24/04/2025)		
4	Conditions for most economical rectangular and trapezoidal channel section.	11th Week (17/04/2025-24/04/2025)		
4	Discharge measuring devices: Triangular and rectangular Notches.	12th Week (25/04/2025-02/05/2025)		
4	Velocity measurement devices: current meter, floats and Pitot's tube.	12th Week (25/04/2025-02/05/2025)		
4	Specific energy diagram, Froude's Number.	13th Week (03/05/2025-09/05/2025)		
5	Concept of pump, Types of pumps - centrifugal, reciprocating, submersible.	14th Week (13/05/2025-19/05/2025)		
5	Suction head, delivery head, static head, Manometric head.	15th Week (20/05/2025-26/05/2025)		
5	Selection and choice of pump.	16th Week (27/05/2025-28/05/2025)		

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Week	Actual Date	Rem
A-1	Unit 1- Pressure Measurement & Hydrostatic Pressure, Unit 2- Fluid flow & parameters.	6th Week		
A-2	Unit 3- Flow through pipes , Unit 4- Flow through Open Channel, Unit 5- Hydraulic pumps.	13th Week		

Department of Civil Engineering
Dr. B. R. Ambedkar Govt. Polytechnic Ambota, District Una (H.P.)
Lesson Plan for Advanced Surveying (Semester-4th) Session: (Feb - May, 2025)

No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Plane Table Surveying: Principles of plane table survey	
2	February	Week-1	Accessories of plane table and their use, Telescopic alidade.,Setting of plane table;Orientation of plane table - Back sighting and Magnetic meridian method.,	
		Week-2	Methods of plane table surveys- Radiation, Intersection and Traversing,Merits and demerits of plane table survey.	
		Week-3	Types and uses of Theodolite, Components of transit Theodolite and their functions, Reading the Vernier of transit theodolite,Technical terms- Swinging, Transiting, Face left, Face right.	
		Week-4	Fundamental axes of transit Theodolite and their relationship,Temporary adjustment of transit Theodolite.,Measurement of horizontal angle- Direct and Repetition method, Errors eliminated by method of repetition	
3	March	Week-1	Measurement of magnetic bearing of a line, Prolonging and ranging a line, deflection angle	
		Week-2	Measurement of vertical Angle,Theodolite traversing by included angle method and Deflection angle method	
		Week-3	Traverse Computation-Latitude, Departure, Consecutive coordinates, independent coordinates.	Class Test -I
		Week-4	Principles of Tacheometry, Tacheometer, and its component parts, Anallatic lens	
		Week-5	Tacheometric formula for horizontal distance with telescope horizontal and staff vertical.	
4	April	Week-1	Field method for determining constants of tacheometer, determining horizontal and vertical distance with tacheometer by fixed hair method and staff held vertical, Limitations of tacheometry	
		Week-2	Types of curves used in roads. Designation of curves	
		Week-3	Setting simple circular curve by offsets from long chord and Rankine's method of deflection angles..	Class Test -II
		Week-4	Principle of Electronic Distance Meter (EDM), its component parts and their Functions, use of EDM., Use of micro-optic Theodolite and Electronic Digital Theodolite.	
		Week-5	Use of Total Station, Use of function keys.	
5	May	Week-1	Remote Sensing – Overview, Remote sensing system, Applications of remote sensing in Civil engineering, land use / Land cover, mapping, disaster management	
		Week-2	House Test	
		Week-3	Use of Global Positioning System (G.P.S.) Instruments	
		Week-4	Geographic Information System (GIS): Overview, Components, Applications, Software for GIS	
		Week-5	Introduction to Drone Surveying.	

Monthly Review By HOD

Feburary		
March		
April		
May		

Dr. B.R. Ambedkar Govt. Polytechnic, Ambota Una (H.P.)

Department of Civil Engineering

LESSON PLAN

Program Name	Diploma in Civil Engineering
Course/Subject Name	**Building Planning & Drawing (Theory)**
Course/Subject Code	N-2022 / CEPC206
Course/Subject Co-ordinator Name	Amandeep Singh

Evaluation Scheme

Sr. No.	Subject Name	Study Scheme			Evaluation Scheme						Total Marks (Int. & Ext.)
		L	BS	Total	Internal Assessment			External Assessment			
1	Building Planning & Drawing	1	0	1 Hr./week	Th.	Pr.	T	Th.	Hrs.	T	
					40	-	40	60	3	60	100
Reference Books		Swamy, Kumara; Rao, N, Kameshwara, A ., Building Planning and Drawing, Charotar									
		Shah. M.G. Kale, CM, Patki, S.Y., Building Drawing, McGraw Hill Publishing									
		Malik and Mayo, Civil Engineering Drawing, Computech Publication Ltd									

Teaching Plan

Unit No.	Name of Topic	Proposed Week	Actual Date	Remar
1	Conventions as per IS 962, symbols for different materials such as earthwork, brickwork, stonework, concrete, woodwork, and glass. Graphical symbols for doors and windows, Abbreviations, symbols for sanitary and electrical installations. Types of lines-visible lines, centre line, hidden line, section line, dimension line, extension line, pointers, arrowhead, or dots. Appropriate size of lettering and numerals for titles, sub-titles, notes, and dimensions.	1st Week (27/01/2025-01/02/2025)		
1	• Types of scale- Monumental, Intimate, criteria for Proper	2nd Week (03/02/2025-10/02/2025)		

	Selection of scale for various types of drawing. Sizes of various standard papers/sheets. Reading and interpreting readymade Architectural building drawing (To be procured from Architect, Planning Consultants, Planning Engineer).			
2	Principles of planning for Residential and Public building- Aspect, Prospect, Orientation, Grouping, Privacy, Elegance, Flexibility, Circulation, Furniture requirements, Sanitation, Economy. Space requirement and norms for minimum dimension of different units in the residential and public buildings as per IS 962. Rules and byelaws of sanctioning authorities for construction work.	3rd Week (11/02/2025-18/02/2025)		
2	Plot area built up area, super built-up area, plinth area, carpet area, floor area and FAR (Floor Area Ratio). Line plans for residential building of minimum three rooms including water closet (WC), bath and staircase as per principles of planning. Line plans for public building-school building, primary health centre, restaurant, bank, post office, hostel, Function Hall and Library.	4th Week (19/02/2025-25/02/2025)		
3	Drawing of Single storey Load Bearing residential building (2 BHK) with staircase.	5th Week (27/02/2025-05/03/2025)		
3	Data drawing –plan, elevation, section, site plan, schedule of openings, construction notes with specifications, area statement, Planning and design of staircase- Rise and Tread for residential and public building.	6th Week (06/03/2025-13/03/2025)		
3	Working drawing – developed plan, elevation, section passing through staircase or WC and bath.	7th Week (15/03/2025-21/03/2025)		
3	Foundation plan of Load bearing structure.	8th Week (22/03/2025-28/03/2025)		
4	Drawing of Two storeyed Framed Structure (G+1), residential building (2 BHK) with stair- case	9th Week (29/03/2025-05/04/2025)		

4	Data drawing – developed plan, elevation, section, site plan, schedule of openings, construction notes with specifications, area statement. Planning and design of staircase- Rise and Tread for residential and public building.	10th Week (07/04/2025-16/04/2025)		
4	Working drawing of Framed Structure – developed plan, elevation, section passing through staircase or WC and bath.	11th Week (17/04/2025-24/04/2025)		
4	Foundation plan of Framed Structure.	12th Week (25/04/2025-02/05/2025)		
4	Details of RCC footing, Column, Beam, Chajjas, Lintel, Staircase, and slab.	13th Week (03/05/2025-09/05/2025)		
4	Drawing with CAD- Draw commands, modify commands, layer commands.	14th Week (13/05/2025-19/05/2025)		
4	Drawing with CAD- Draw commands, modify commands, layer commands.	15th Week (20/05/2025-26/05/2025)		

House Test/Class Test

Name of Test	Contents of Syllabus Covered	Proposed Week	Actual Date	Remar
Class Test 1	Unit 1- Conventions & Symbols, Unit 2- Planning of Building.	3rd Week of March 2025		
Class Test 2	Unit 3- Drawing of Load Bearing Structure , Unit 4- Drawing of Framed Structure	3rd Week of April 2025		
House Test	Unit 1- Conventions & Symbols, Unit 2- Planning of Building, Unit 3- Drawing of Load Bearing Structure , Unit 4- Drawing of Framed Structure	2nd Week of May 2025		

Signature of HOD

Signature of Teacher

Department of Civil Engineering

Dr B.R.Ambedkar Government Polytechnic Ambota Distt Una (H.P.)

Lesson Plan forTranspotation Engg. (Semester-4th) Session: (Feb-June 2025)

.No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Role of transportation in the development of nation, Scope and Importance of roads in India and its Characteristics.	
2	February	Week-1	Different modes of transportation – land way, waterway, airway. Merits and demerits of roadway and railway.	
		Week-2	General classification of roads. Selection and factors affecting road alignment	
		Week-3	Camber: Definition, purpose, types as per IRC – recommendations.	
		Week-4	Kerbs: Road margin, road formation, right of way	
		Week-5	Design speed and various factors affecting design speed as per IRC –recommendations	
3	March	Week-1	Gradient: Definition, types as per IRC – Recommendations	
		Week-2	Sight distance (SSD): Definition, types IRC – recommendations, simple numerical	
		Week-3	Curves: Necessity, types: Horizontal, vertical curves.	Class Test -I
		Week-4	Super elevation: Definition, formula for calculating minimum and maximum Super elevation and method of providing super-elevation. Standards cross-sections of national highway in	
		Week-5	Types of road materials and their Tests – Test on aggregates- Flakiness and Elongation Index tests,	
4	April	Week-1	Angularity Number test, test on Bitumen- penetration, Ductility, Flash and Fire point test and Softening 36 point test.	
		Week-2	Pavement – Definition, Types, Structural Components of pavement and their functions Construction of WBM road. Merits and demerits of WBM & WMM road. C	
		Week-3	construction of Flexible pavement / Bituminous Road, Types of Bitumen and its proper- ties, Emulsion, Cutback, Tar, Terms used in BR-prime coat, tack coat, seal coat, Merits and Demerits of	Class Test -II
		Week-4	Cement concrete road methods of construction, Alternate and Continuous Bay Method, Construction joints, filler and sealers, merits and demerits of concrete roads. Types of joints.	
		Week-5	Classification of Indian Railways, zones of Indian Railways. Permanent way: Ideal requirement, Components; Rail Gauge, types, factors affecting selection of a gauge. Rail, Rail Joints -	
5	May	Week-1	Alignment- Factors governing rail alignment. Track Cross sections – standard cross section of single and double line in cutting and embankment. Important terms- permanent land, formation width,	
		Week-2	HOUSE TEST	
		Week-3	Railway Track Geometrics: Gradient, curves- types and factors affecting, grade compensation, super elevation, limits of Super elevation on curves, cant deficiency, negative cant, coning of	
		Week-4	Station -Purpose, requirement of railway station, important technical terms, types of rail- way station, factors affecting site selection for railway station. Station yard: Classification-	
		Week-5	Track Maintenance- Necessity, Classification, Tools required for track maintenance with their functions, Organization of track maintenance, Duties of permanent way inspector, gang mate and	

Signature of Teacher

(Er Munish Kumar)

Signature of H.O.D

(Er Chetan Mandela)

Department of Civil Engineering
Dr B.R.Ambedkar Government Polytechnic Ambota Distt Una (H.P.)

Lesson Plan for construction mangement. (Semester-4th) Session: (Feb-June 2025)

MONTH	WEEK	CONTENTS	REMARKS
January	Week-5	Organization-objectives, principles of organization, types of organization: government/public and private construction industry, Role of various personnel in construction organization	
February	Week-1	Agencies associated with construction work- owner, promoter, builder, designer, architects.	
	Week-2	Role of consultant for various activities: Preparation of Detailed Project Report (DPR), Monitoring of progress and quality, settlement of disputes	
	Week-3	Principles governing site layout. .	
	Week-4	Factors affecting site layout. Preparation of site layout	
	Week-5	Land acquisition procedures and providing compensation	
March	Week-1	Identifying broad activities in construction work & allotting time to it, Methods of Scheduling, . ,	
	Week-2	Development of bar charts, Merits & limitations of bar chart.	
	Week-3	CPM networks, activity time estimate, Event Times by forward & backward pass calculation, start and finish time of activity, project duration.	Class Test -I
	Week-4	Elements of Network: Event, activity, dummy activities, Precautions in drawing Network, Numbering the events	
	Week-5	Elements of Network: Event, activity, dummy activities, Precautions in drawing Network, Numbering the events	
April	Week-1	Purpose of crashing a network, Normal Time and Cost, Crash Time and Cost, Cost slope, Optimization of cost and duration.	
	Week-2	Floats: Types of Floats-Free, independent, and total floats, critical activities and critical path	
	Week-3	Material Management- Ordering cost, inventory carrying cost, Economic Order Quantity Store management, various records related to store management, inventory control by ABC technique, Introduction to material procurement through portals (e.g. www.inampro.nic.in)Development of bar charts, Merits & limitations of bar chart.	Class Test -
	Week-4	Types of Construction contracts	
	Week-5	Contract documents, specifications, general special conditions	
May	Week-1	Contract Management, procedures involved in arbitration and settlement (Introduction only)	
	Week-2	HOUSE TEST	
	Week-3	Safety in Construction Industry—Causes of Accidents, Remedial and Preventive Measures.	
	Week-4	Labour Laws and Acts pertaining to Civil construction activities (Introduction only)	
	Week-5	Revision	

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Department of Civil Engineering
Dr B.R.Ambedkar Government Polytechnic Ambota Distt Una (H.P.)

Lesson Plan for Elective-ii(Railway Bridges & Tunnel) (Semester-4th) Session: (Feb-June 2025)

S.No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Introduction to Indian Railways Railways surveys: Factors influencing the railways route, brief description of various types of railway survey	
2	February	Week-1	Classification of permanent way describing its component part Rail – types of rails	
		Week-2	Rail Gauge; Definition, types, practice in India	
		Week-3	Rail Fastening: Rail joints, types of rail joints, fastening for rails, Fish plates, spikes bearing plates	
		Week-4	Sleepers: Functions of sleepers, types of sleepers, requirements of an ideal material of Sleepers.	
		Week-5	Ballast: Function of ballast, requirements of an ideal material of ballast Crossing and signalling: Brief description regarding different types of crossing/signalling	
3	March	Week-1	Maintenance of track: Necessity, track fixtures; maintenance and boxing of ballast, maintenance gauges, tools. Drains, methods of construction	
		Week-2	Introduction Bridge–its function and component parts, difference between a bridge and A culvert	
		Week-3	Classification of Bridges Their structural elements and suitability:	Class Test -
		Week-4	According to life-permanent and temporary According to deck level–Deck, through and semi-through	
		Week-5	According to material–timber, masonry, steel, RCC, pre-stressed walls 47 (straight, splayed, return and curved) Bridge bearings Purpose of bearing; types of bearing–fixed plate, rocker and	
4	April	Week-1	Bridge Foundations: Introduction to open foundation pile foundation, Well foundation	
		Week-2	Piers, Abutments and Wing walls Piers–definition, parts; types–solid (masonry and RCC), open	
		Week-3	IRC classification	Class Test -
		Week-4	Abutment sand wing walls–definition, types of abutment (straight and tee), abutment with wing	
		Week-5	Definition and necessity of tunnels . t Drainage method of draining water in tunnels	
5	May	Week-1	Typical section of tunnels for a national highway and single and double broad gauge railway track	
		Week-2	HOUSE TEST	
		Week-3	Ventilation-necessity and methods of ventilation, by blowing, exhaust and combination of	
		Week-4	Lighting in tunnels & lining of tunnels.	
		Week-5	Revision	

Signature of Teacher
(Er Munish Kumar)

Signature of H.O.D
(Er Chetan Mandel)

Department of Civil Engineering
Dr. B. R. Ambedkar Govt. Polytechnic Ambota, District Una (H.P.)

Lesson Plan for Advanced Surveying Lab G-I (Semester-4th) Session: (Feb - May, 2025)

S.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Use plane table survey to prepare plans of a plot of seven-sided closed traverse by Radiation Method.	
2	February	Week-1	Use plane table survey to prepare plans, locate details by Intersection Method. File Checking & Viva	
		Week-2	Use plane table survey to prepare plans, locate details by Traversing Method. File Checking & Viva	
		Week-3	Use plane table survey to carry out Survey Project for closed traverse for minimum five sides around a building. File Checking & Viva	
		Week-4	Use transit theodolite to measure Horizontal and Vertical angle by Direct Method. File Checking & Viva	
3	March	Week-1	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey project. File Checking & Viva	
		Week-2	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey project. File Checking & Viva	
		Week-3	Use Theodolite as a Tacheometer to compute reduced levels and horizontal distances. File Checking & Viva	
		Week-4	Set out a circular curve by Rankine's Method of Deflection Angles. File Checking & Viva	
		Week-5	Use micro-optic Theodolite to Measure Horizontal angle by Direct Method. File Checking & Viva	
4	April	Week-1	Use EDM to measure horizontal distance. File Checking & Viva	
		Week-2	Use Total station instrument to measure horizontal distances. File Checking & Viva	
		Week-3	Use Total station instrument to measure vertical angle. File Checking & Viva	
		Week-4	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides. File Checking & Viva	
		Week-5	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides. File Checking & Viva	
5	May	Week-1	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station survey project File Checking & Viva	
		Week-2	HOUSE TEST	
		Week-3	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station survey project. File Checking & Viva	
		Week-4	Use GPS to locate the coordinates of a stat	
		Week-5	File Checking & Viva	

Monthly Review By HOD

Feburary		
March		
April		
May		

Signature of H.O.D

Department of Civil Engineering
Dr. B. R. Ambedkar Govt. Polytechnic Ambota, District Una (H.P.)

Lesson Plan for Advanced Surveying Lab G-II (Semester-4th) Session: (Feb - May, 2025)

S.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Use plane table survey to prepare plans of a plot of seven-sided closed traverse by Radiation Method.	
2	February	Week-1	Use plane table survey to prepare plans, locate details by Intersection Method. File Checking & Viva	
		Week-2	Use plane table survey to prepare plans, locate details by Traversing Method. File Checking & Viva	
		Week-3	Use plane table survey to carry out Survey Project for closed traverse for minimum five sides around a building. File Checking & Viva	
		Week-4	Use transit theodolite to measure Horizontal and Vertical angle by Direct Method. File Checking & Viva	
3	March	Week-1	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey project. File Checking & Viva	
		Week-2	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey project. File Checking & Viva	
		Week-3	Use Theodolite as a Tacheometer to compute reduced levels and horizontal distances. File Checking & Viva	
		Week-4	Set out a circular curve by Rankine's Method of Deflection Angles. File Checking & Viva	
		Week-5	Use micro-optic Theodolite to Measure Horizontal angle by Direct Method. File Checking & Viva	
4	April	Week-1	Use EDM to measure horizontal distance. File Checking & Viva	
		Week-2	Use Total station instrument to measure horizontal distances. File Checking & Viva	
		Week-3	Use Total station instrument to measure vertical angle. File Checking & Viva	
		Week-4	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides. File Checking & Viva	
		Week-5	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides. File Checking & Viva	
5	May	Week-1	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station survey project File Checking & Viva	
		Week-2	HOUSE TEST	
		Week-3	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station survey project. File Checking & Viva	
		Week-4	Use GPS to locate the coordinates of a stat	
		Week-5	File Checking & Viva	

Monthly Review By HOD

Feburary		
March		
April		
May		

Signature of Teacher
(Er Manoj Kumar)

Signature of H.O.D
(Er Chetan Mandela)

Dr. B.R. Ambedkar Govt. Polytechnic, Ambota Una (H.P.)

Department of Civil Engineering

LESSON PLAN

Program Name	Diploma in Civil Engineering
Course/Subject Name	**Building Planning & Drawing Lab.**
Course/Subject Code	N-2022 / CEPC218
Course/Subject Co-ordinator Name	Amandeep Singh

Evaluation Scheme

Sr. No.	Subject Name	Study Scheme			Evaluation Scheme						Total Marks (Int. & Ext.)
		P	BS	Total	Internal Assessment			External Assessment			
1	Building Planning & Drawing Lab.	4	0	4 Hrs./week	Th.	Pr.	T	Pr.	Hrs.	T	
					-	40	40	60	3	60	100
Reference Books		Swamy, Kumara; Rao, N, Kameshwara, A ., Building Planning and Drawing, Charotar									
		Shah. M.G. Kale, CM, Patki, S.Y., Building Drawing, McGraw Hill Publishing									
		Malik and Mayo, Civil Engineering Drawing, Computech Publication Ltd									

Lab. / Drawing Plan

Drawing No.	Name of Topic	Proposed Week	Actual Date	Remarks
1	Draw various types of lines, graphical symbols for materials, doors and windows, symbols for sanitary, water supply and electrical installations and write abbreviations as per IS 962.	1st Week (27/01/2025-01/02/2025)		
2	Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)	2nd Week (03/02/2025-10/02/2025)		
3	Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).	3rd Week (11/02/2025-18/02/2025)		

3	Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).	4th Week (19/02/2025-25/02/2025)		
4	Draw submission drawing to the scale 1:100 of a single storey load bearing residential building (2BHK) with flat Roof and staircase showing a. Developed plan and elevation b. Section passing through Stair or W.C. and Bath	5th Week (27/02/2025-05/03/2025)		
4	Draw submission drawing to the scale 1:100 of a single storey load bearing residential building (2BHK) with flat Roof and staircase showing c. Foundation plan and schedule of openings. d. Site plan (1:200), area statement, construction notes.	6th Week (06/03/2025-13/03/2025)		
5	Draw submission drawing, to the scale of 1:100, of (G+1) Framed Structure Residential Building (2BHK) with Flat Roof and staircase showing: a. Developed plan b. Elevation. c. Section passing through Staircase, WC and Bath	7th Week (15/03/2025-21/03/2025)		
5	Draw submission drawing, to the scale of 1:100, of (G+1) Framed Structure Residential Building (2BHK) with Flat Roof and staircase showing: d. Site plan (1:200) and area statement e. Schedule of openings and Construction Notes.	8th Week (22/03/2025-28/03/2025)		
6	Draw working drawing for above mentioned drawing at serial number 5 showing: a. Foundation plan to the scale 1:50	9th Week (29/03/2025-05/04/2025)		
6	b. Detailed enlarged section of RCC column and footing with plinth filling.	10th Week (07/04/2025-16/04/2025)		
6	c. Detailed enlarged section of RCC Beam, Lintel and Chajjas.	11th Week (17/04/2025-24/04/2025)		
7	Draw the above-mentioned drawing at serial number 5 using CAD software and enclose the printout. a. Developed plan	12th Week (25/04/2025-02/05/2025)		

Department of Civil Engineering

Dr B.R.Ambedkar Government Polytechnic Ambota Distt Una (H.P.)

Lesson Plan forTranspotation Engg lab G-i& G-ii. (Semester-4th) Session: (Feb-June 2025)

S.No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Draw the sketches showing standard cross sections of Expressways, Freeways, NH/SH, MDR/ODR	
2	February	Week-1	Flakiness and Elongation Index of aggregates.	
		Week-2	Angularity Number of aggregates	
		Week-3	Aggregate impact test	
		Week-4	Los Angeles Abrasion test	
		Week-5	Aggregate crushing tes	
3	March	Week-1	Softening point test of bitumen.	
		Week-2	**checking of files**	
		Week-3	Penetration test of bitumen	Class Test -I
		Week-4	**checking of files**	
		Week-5	Ductility test of Bitumen	
4	April	Week-1	**checking of files**	
		Week-2	1 Visit the constructed road for visual inspection to identify defects and suggest remedial measures	
		Week-3	**checking of files**	Class Test -II
		Week-4	Prepare the photographic report containing details for experiment No.11	
		Week-5	**checking of files**	
5	May	Week-1	Visit the hill road constructed site to understand its components.	
		Week-2	**checking of files**	
		Week-3	Prepare the photographic report containing details for experiment No. 13	
		Week-4	**checking of files**	
		Week-5	Flash and Fire Point test of bitumen.	

Signature of Teacher

(Er Munish Kumar)

Signature of H.O.D

(Er Chetan Mandela)

LESSON PLAN

Program Name	DIPLOMA IN Civil Engg.
Course/Subject Name	Essence Of Indian Knowledge & Tradition
Course/Subject Code	AU202
Course/Subject Coordinator Name	Swati Bhardwaj

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Essence Of Indian Knowledge & Tradition	2 hrs (Th)	40	-	60	-

Reference books:	(1) Cultural Heritage of India- Course Material by V. Sivaramkrishna Bhartiya
	(2) Modern Physics and Vedant by Swami JItatmanand Bhartiya
	(3) The wave of Life by Fritz of Capra
	(4) Tao Of Physics Fritz of Capra
	(5) Science of consciousness Psychotherapy and Yoga Practice by RN Jha, Vidya Nidhi Prakashan
	(6) Himachal Pradesh History, Culture and Economy by Mian Goverdhan Singh and Dr. C.L. Gupta.

Course Outcomes: After the completion of the course the students will be able to:

CO1	Identify the concept of Indian Knowledge system
CO2	Understand the need and importance of protecting traditional knowledge.
CO3	Compare the Indian traditional knowledge and modern science
CO4	Understand the use of Yoga in stress management ,mental health,mindfulness, healthy eating, weight loss and quality sleep
CO5	Aware of the general knowledge of Himachal Pradesh

Teaching Plan:

Lecture No.	Name of topic	Proposed Date	Actual Date	Remarks
1	**Unit-1 Indian knowledge System** Introduction and function of Indian knowledge system	27/01/2025		
2	The Basic Structure of Indian knowledge system The 4 Vedas Rigveda, Yajurveda, Samaveda, Atharvaveda	01/02/2025		
3	The 4 Up Vedas Ayurveda(health -care) Dhanurveda(archery) Gandharva Veda veda(dance , music etc.) and Sthapatya veda (architecture)	03/02/2025		
4	The 6 Vedagangs, Shiksha, Kalpa, Vyakarana, Chhandas ,Nirukta, and Jyotisha.	10/02/2025		
5	Itihasa Ramayana and Mahabharata) and Purana Vishnu Purana Bhagavata Purana	15/02/2025		
6	DharmaShastra,Manusmriti, Yajnavalkya-smriti etc.	17/02/2025		
7	Darshan	22/02/2025		
8	Nayaya (Logic and Epistemology)	24/02/2025		
9	**Unit- 2 Modern Science** Modern Science: Introduction, Characteristics, importance and Example	01/03/2025		
10	Difference between modern Science and Indian knowledge system	03/03/2025		
11	Role of IKS in modern Science	10/03/2025		
12	**Unit-3 Traditional Knowledge** Definition, nature,characteristics, scope and importance	15/03/2025		
13	**CLASS TEST -I**	17/03/2025		
14	Indigenous knowledge(IK); characteristics	22/03/2025		

Assignment serial	Contents of syllabus covered	Actual date	Remarks
	Indian Knowledge System & Modern Science		
A-2	Yoga and Holistic Health Care, H.P : A Basic Information		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual date	Remarks
CT-I	30% of the syllabus	3rd week of March, 2025		
CT-II	Next 30% of the syllabus	3rd week of April, 2025		
House Test	80% of the syllabus	2nd week of May, 2025		

(Signature of HOD)

(Signature of Teacher)

(Swati Bhardwaj)