Name Design Sr	of Subj		Lesson Plan w.e.f 27/01/2					
Name Design Sr		2.4		025 to 29/05/2025				
Desig Sr	of Took	ect:-	Hydraulics (CEPC202)	Session:-	February-Jur	ne 2025		
Sr	wi loau	her:-	Er. Parveen Kumar	Semester				
1.0000	nation:-		Lecturer (Civil Engg.)	Scheme:-	N-2022			
No Month Week			c	ontents	111 2000	Remark		
1	January	Week 5	Unit – 1 Pressure measurement and Hydrostatic pressure Technical terms used in Hydraulics –fluid, fluid mechanics, hydraulics, hydrostatics, and hydrodynamics - ideal and real fluid, application of hydraulics. Physical properties of fluid – density-specific volume, specific gravity, surface tension, capillarity, and viscosity-Newton's law of viscosity.					
		Week 1	Various types of pressure – Atm Absolute Pressure, Vacuum Pressure, Vacuum Pressure, Vacuum Pressure unit, Pascal's law of fluid pressure in Measurement of differential Pressurement of	nospheric Pressure, G sure. Concept of Pres and its uses.	lauge Pressure, sure head and its			
	February	iary	Week 2	Variation of pressure with depth pressure and center of pressure of walls.	. Pressure diagram, h	ovdrostafic		
2		Week 3	Determination of total pressure	and center of pressure on sides and ottom of tanks containing two liquids,	e on sides and ning two liquids,			
					Week 4	Unit- 2 Fluid Flow Parameters Types of flow - Gravity and pres Non-uniform, Steady, Unsteady flo Discharge and its unit, continuity	sure flow, Laminar, Tow. Reynolds number.	urbulent, Uniform,
	March	Week 1	☐ Energy of flowing liquid: potentia ☐ Bernoulli's theorem: statement,	al, kinetic and pressur	e energy.			
		Week 2	Revision					
3		March	Week 3	Class Test - I. Unit- 3 Flow through pipes Major Head loss in pipe: Frictional Welsbach equation.	loss and its computat	ion by Darcy's		
		Week 4	Minor losses in pipe: loss at entrended in Minor losses in pipe: loss at entrended in Minor losses in pipe.					
			 □ Flow through pipes in series, pip equivalent pipe. □ Hydraulic gradient line and total 		ouit's equation for			
		Week 2	Revision					
	April	Week 3	Class Test - II. Unit- 4 Flow through Open Chan Geometrical properties of chann perimeter, hydraulic radius for recta section.	el section: Wetted are	a, wetted al channel			
		Week 4	Determination of discharge by Co equation. Conditions for most economical re- section.					
4		Week 5	Discharge measuring devices: To Velocity measurement devices: o Specific energy diagram, Froude	surrent meter, floats at	ular Notches. nd Pilot's tube.			
	3	- Company of the Comp	Revision					
			fouse Test					
5	May	Week 3	Jnit- 5 Hydraulic Pumps Concept of pump, Types of pump submersible.		0750			
		Week 4	Suction head, delivery head, state Selection and choice of pump.	ic head, Manometric	head.			

Signature of Teacher (Er. Parveen Kumar)

			rnment Polytechnic Kullu at Sec Department of Civil				
_	_	-	Lesson Plan w.e.f 27/01/2			7467	
lam	e of Subje	ect-	Advanced Surveying	Session:-	Jan-May 2025		
Name of Teacher:-			Er Neha Thakur	divariced durveying			
	gnation:-		Lecturer (Civil Engg)	Scheme:-	N-2022		
Sr	Month	Week		ontents		Remarks	
No	MOnth	Week	Unit – 1 Plane Table Surveying	77.27.27.27.2.2.2.2.2.2.2.2.2.2.2.2.2.2			
1	January	Week 5	Principles of plane table survey. Acc Telescopic alidade. Setting of plane s sighting and Magnetic meridian meth	table; Orientation of pla nod.	ine table - Back	llar	
		Week 1	Methods of plane table surveys- Rad and demerits of plane table survey	liation, Intersection and	Traversing. Merits		
2	February	Week 2	Unit- 2 Theodolite Surveying Types and uses of Theodolite, Comp functions, Reading the Vernier of tra Transiting, Face left, Face right. Fun their relationship	nsit Theodolite. Techni damental axes of trans	cal terms- Swinging, it Theodolite and		
No. 1	Febr	Week 3	Temporary adjustment of transit The Direct and Repetition method Errors Measurement of magnetic bearing or	eliminated by method f a line.	or repetition.		
10 10 10 10 10 10 10 10 10 10 10 10 10 1		Week 4	independent coordinates.			319034	
3		Week 1	Unit-3 Tacheometric surveying as Principles of Tacheometry, Tacheo lens. Tacheometric formula for horizo staff vertical.	meter, and its compone	ent parts, Analiatic scope horizontal and	1	
14.	5	Week 2	Revision				
3	March	Week 3	Class Test -I method for determining constants o		Field		
		Week	determining horizontal and vertical method and staff held vertical.Limita in roads.	ations of tacheometry.T	ypes of curves used		
4	. 1	Week	Designation of curves. Setting simple	e circular curve by offs	ets from long chord.		
		Week	Revision				
	, =			of deflection angles.			
	April	Week	Unit- 4 Advanced surveying equi Principle of Electronic Distance Me Functions	eter (EDM), its compon			
4		Week	s use of EDM.Use of micro-optic The	odolite and Electronic	Digital		
		Week					
		Week	2 House Test				

5	May	Week 3	Unit- 5 Remote sensing, GPS and GIS Remote Sensing - Overview, Remote sensing system, Applications of remote sensing in Civil engineering, land use / Land cover, mapping, disaster management. :	
			Use of Global Positioning System (G.P.S.) instruments.Geographic Information System (GIS)	
			Overview, Components, Applications, Software for GIS.Introduction to Drone Surveying.	

Signatury of Teacher (Er Neha Thakur)

		GOV	ernment Polytechnic Kullu at Seoba			_	
_			Department of Civil En Lesson Plan w.e.f 27/01/202			19.60	
Name	of Subje	act:		Session:-	Jan-May 2025	71102	
	of Teac		Building Planning & Drawing Er Neha Thakur	140			
De la companya della companya della companya de la companya della			Lecturer (Civil Engg)	Scheme:-	N-2022		
Sr No			Cont			Remarks	
OI NO	Month	Week		erics		Kemarks	
1	January	Week 5	Unit – I Conventions and Symbols 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.				
	1	Week 1	Types of lines-visible lines, centre line, line, extension line, pointers, arrowhead,		line, dimension		
	February	Week 2	Appropriate size of lettering and numera dimensions. Types of scale- Monumenta of scale for various types of drawing.				
2		Week 3	Sizes of various standard papers/sheets Architectural building drawing.	s.Reading and interp	reting readymade	4	
An real	Week 4 Unit- Il Planning of Building Principles of planning for Residential and Public building- Aspect, Prospect, Orientation, Grouping, Privacy, Elegance, Flexibility, Circulation, Furniture requirements, Sanitation, Economy.						
D: N:		Week 1	Space requirement and norms for minin residential and public buildings as per IS authorities for construction work			- 11 de la composición dela composición de la composición de la composición dela composición de la composición de la composición dela composición dela composición de la composición dela composición de la composición dela composición del	
3	March	Week 2	.Plot area built up area, super built-up ar and FAR (Floor Area Ratio). Line plans three rooms including water closet (WC) planning	for residential building	g of minimum		
		Week 3	Class Test -I				
		Week 4	Line plans for public building-school bui restaurant, bank, post office, hostel, Fur			-	
37	Ţ	Week 1	Unit- III Drawing of Load Bearing Stro Drawing of Single storey Load Bearing staircase.Data drawing -plan, elevation, openings.	residential building (
	E	Week 2	Construction notes with specifications, a staircase- Rise and Tread for residential building.		ning and design of		
	April	Week 3	Class Test -II		u Ale are		
		Week 4	Working drawing – developed plan, elev staircase or WC and bath. Foundation p				
à		Week 5	Unit- IV Drawing of Framed Structure Drawing of Two storeyed Framed Struct with stair- case. Working drawing of Fra elevation, section passing through stairs	ture (G+1), residentia med Structure – dev	reloped plan,		

		Week 1	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.	
		Week 3 Chajjas, Lintel, Staircase, and slab. Drawing with CAD- Drawing modify commands, layer commands.	House Test	
5	May		Foundation plan of Framed Structure. Details of RCC footing, Column, Beam, Chajjas, Lintel, Staircase, and slab. Drawing with CAD- Draw commands, modify commands, layer commands.	
			Drawing with CAD- Draw commands, modify commands, layer commands	4
		Week 5	Drawing with CAD- Draw commands, modify commands, layer commands	

Signature of Teacher (Er Neha Theadr)

			Department of Civil En	gineering			
			Lesson Plan w.e.f 27/01/2025				
Name	of Subje	ect:-	Construction Management	Session:-	February-Jun	e 2025	
Name	e of Teac	ner:-	4		4th Semester		
Desig	nation:-		Lecturer (Civil Engg.)	Scheme:-	N-2022		
Sr	Month	Week		100000000000000000000000000000000000000	In-ross		
No	monu	THUCK	it – I Construction industry and management				
1	January	Week 5	nit - I Construction industry and management Organization-objectives, principles of organization, types of ganization: government/public and private construction industry, Role of prious personnel in construction organization				
		Week 1	Agencies associated with construct designer, architects.	tion work- owner, pr	omoter, builder,		
2	ebruary	Week 2	eek 2 Role of consultant for various activities: Preparation Report (DPR), Monitoring of progress and quality, set	ties: Preparation of and quality, settlen	Detailed Project nent of disputes.		
	Feb	Week 3	Unit - II Site Layout ☐ Principles governing site layout. ☐ Factors affecting site layout.				
			Preparation of site layout.				
11		Week 1	and and an annual bud opposition by	oviding compensati	ion.		
		Week 2	Revision				
3	March	Week 3	Class Test - I. Unit- III Planning and scheduling I Identifying broad activities in construction work & allotting time to it, Methods of Scheduling,		ng time to it,		
		Week 4	Development of bar charts, Merits 8 Elements of Network: Event, activity drawing Network, Numbering the ever	y, dummy activities.	hart. Precautions in		
		Week 1	CPM networks, activity time estimat backward pass calculation, start and fi duration. Floats: Types of Floats-Free, critical activities and critical path, Purpose of crashing a network, Non and Cost, Cost slope.	te, Event Times by f inish time of activity independent, and t	, project lotal floats,		
	April		Optimization of cost and duration. Material Management-Ordering cost according Cost Economic Order Quantity Store management, inventory control to material procurement through portals (gement, various rec ov ABC technique In	ords related to		
			Class Test - II. Unit IV Construction Contracts and Types of Construction contracts		nic.in)		
- 1		Week 4	Contract documents, specifications,	general special con	ditions		
4		Week 5	☐ Contract Management, procedures i settlement (Introduction only)	involved in arbitration	n and		
-		Week 1	Revision				
			House Test				
5	May	Week 3	Unit- V Safety in Construction Safety in Construction Industry—Cal Preventive Measures.	uses of Accidents, i	Remedial and		
		Week 4	Labour Laws and Acts pertaining to (Introduction only)	Civil construction a	ctivities		
		Week 5	Revision				

Signature of Teacher (Er. Neha Thakur)

			overnment Polytechnic Kullu at Seo Department of Civil I	Engineering		
			Lesson Plan w.e.f 27/01/20	024 to 25/05/2024		
_	e of Subje		Railways, Bridges &Tunnels	Session:-	Jan-May 2025	
Name of Teacher:-			Er Adit Rana	Semester:- 4th Semester		
Designation:-			H.O.D (Civil Engg)	Scheme:- N-2022		
Sr No	Month	Week	Con	tents		Remarks
1	January	Week 5	RAILWAYS, Introduction to Indian Raily	1000		
		Week 1	Railways surveys: Factors influencing to various types of railway survey	ne railways route, brid	of description of	
2	February	Week 2	Classification of permanent way describ Definition, types, practice in India, Rail - joints, types of rail joints, fastening for rail	- tympe of raile Dall E	Action to the second	
	Ē	Week 3	Sleepers: Functions of sleepers, types of material of Sleepers			
		Week 4	crossing/signalling	n regarding different	types of	
		Week 1	Maintenance of track: Necessity, track for ballast, maintenance gauges,	xtures; maintenance	and boxing of	
3	March	Week 2	Revision	N SLE		
5	2	Week 3	Class Test -I	F		
A= 11 DC	N Victor	Week 4	BRIDGES, Introduction, Bridge-its functi between a bridge and A culvert, Classific	ion and component p	arts, difference	
1.	Town or	Week 1	Their structural elements and suitability: temporary, According to deck level-Deck to material-timber, masonry, steel, RCC	According to life-peri	brough Assessing	
	April	TYOUR Z Induitable in Piers	Bridge Foundations: Introduction to open foundation, Piers, Abutments and Wing types—solid (masonry and RCC), open,	foundation pile foun walls, Piers-definition	dation, Well parts;	
- 1	₹	Week 3	Class Test-II			
Ei,		Week 4	Abutment sand wing walls- definition, type abutment with wing walls (straight, splayers)	oes of abutment (stra ed, return and curved	ight and tee),	
4		Week 5	Bridge bearings Purpose of bearing; type roller, Maintenance of Bridges, Inspection	e of bearing found at		
		Week 1	Revision	25-52-74/0-	participantification	
		Week 2	House Test			
5	May	Week 3	TUNNELS Definition and necessity of tun national highway and single and double to necessity and methods of ventilation, by blowing and exhaust	trood college college.	Acres 10 April 171 141	
		Week 4	Drainage method of draining water in tunn tunnels.	nels, Lighting in tunne	els & lining of	
		Week 5	Revision			

Signature of Teacher (Er Adit Rana)

	- 111		ment Polytechnic Kullu at Se		P. 175138		
			Department of Civil				
			Lesson Plan w.e.f 27/01/2	2025 to 29/05/2025			
	of Subje	-	Hydraulics Lab.	Session:-	February-Jun	e 2025	
Name	Name of Teacher:-		Er. Parveen Kumar				
Designation:-			Lecturer (Civil Engg.)	Scheme:-	N-2022		
Sr No	Month	Week		Contents	14-2022	Remarks	
1	January	Week 5	l and a second	e piezometer to measure pressure at a given point.			
		Week 1	Use U tube differential manomete between two given points.	er to measure pressure	difference		
2	February	Week 2 Find the resultant pressure and its position for given situation at the second state.	s position for given situ	uation of liquid in			
		Week 3	Revision				
		Week 4	Use Reynold's apparatus to dete	rmine type of flow.			
		Week 1	Hea Ramoulles apparatus to appl	ly Bernoulli's theorem to	get total energy		
3	March	Week 2	Determine miner lesses in nine 6				
	-	Week 3	Revision				
			Determine minor losses in pipe fi				
		Week 1	Calibrate Venturimeter to find out	the discharge in a pipe			
	0507	Week 2	Calibrate the Orifice to find out th	e discharge through a t	ank.		
	April	Week 3	Revision				
	₹	Week 4	Use Current meter to measure the channel.	e velocity of flow of wat	er in open		
4		Week 5	Use Pitot tube to measure the ve	locity of flow of water in	open channel.		
			Revision				
	-	Week 2	Use triangular notch to measure	the discharge through o	pen channel.		
5	May	Week 3	Use Rectangular notch to measu	re the discharge throug	h open channel.	8	
	-	Week 4	Revision			4	
			Week 5	Revision			

Signature of Teacher (Er. Parveen Kumar)

		GOVE	rnment Polytechnic Kullu at Se		*** ** ** ** ** ** ** ** ** ** ** ** **			
			Department of Civil Lesson Plan w.e.f 27/01/2					
				Session:-	Jan-May 2025			
	Name of Subject:-		Advanced Surveying Lab	Semester:-	4th Semester			
	of Teac	her:-	Er Neha Thakur		N-2022			
Design	nation:-		Lecturer (Civil Engg)	Scheme:-	N-2022			
Sr No	Month	Week		ontents		Remarks		
1	January	Week 5	Use plane table survey to prepare plans of a plot of seven-sided closed traverse by Radiation Method.					
		Week 1	Use plane table survey to prepare pl	ans, locate details by In	tersection Method.			
	any	Week 2	Use plane table survey to prepare pl	NO No commence and the second	- Lancard Contract Co			
2	February	Week 3	Use plane table survey to carry out S minimum five sides around a					
		Week 4	IMethod.					
		Week 1	Plot the traverse on A1 size imperial preceding Theodolite Survey			41		
Noseo	March	March	Week 2	Lice Theodolite as a Tacheometer to	compute reduced level	s and horizontal	740	
3			Mar	Week 3	Set out a circular curve by Rankine's	Method of Deflection A	ingles.	
52.14						Week 4	Use micro-optic Theodolite to Meason	ure Horizontal angle by I
-	7.5	Week 1	Use EDM to measure horizontal dis	tance.				
H	1 8 1	Week 2	Use Total station instrument to mea	sure horizontal distance	9.			
	=	Week 3	Use Total station instrument to mea	sure vertical angle.				
	April	Week 4	Use Total station instrument to carry	out Survey Project for o	closed traverse for	+0.0000		
4		Week 5	Plot the traverse on A1 size imperia	al drawing sheet for the o ect.	collected data from			
		Week 1	Use GPS to locate the coordinates	of a station.				
5	May	Week 2		ouse Test				
1550	2	Week 3		Revision				
1 3		Week 4		Revision		-		
4		Week 5	5	Revision				

Signature of Teacher (Er Neha Thakur)

Government Polytechnic Kullu at Seobagh Distt Kullu H.P. 175138 Department of Civil Engineering

Lesson Plan w.e.f 27/01/2024 to 25/05/2024

Name of Subject:-

Building Planning & Drawing Lab

Session:-

Jan-May 2025

Name of Teacher:-

Er Neha Thakur

Semester:-

4th Semester

Designation:-

Lecturer (Civil Engg)

Scheme:-

N-2022

Sr No	Month	Week	Contents	Remarks	
1	January	Week 5	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.		
	2	Week 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.		
2	February	Week 2	Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)		
120	듄	Week 3	Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)		
		Week 4	Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).		
		Week 1	Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).		
daese Jacob			Week 2	Week 2 Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).	
3	March	Week 3	Class Test -l		
•	Ma	Week 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 c. Foundation plan and schedule of openings. d. Site plan (1:200), area statement, construction notes.		
		Week 1	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 c. Foundation plan and schedule of openings. d. Site plan (1:200), area statement, construction notes.		
		Week 2	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 d. Site plan (1:200) and area statement e. Schedule of openings and Construction Notes.		
-	April	Week 3	Class Test -II		

			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 d. Site plan (1:200) and area statement e. Schedule of openings and Construction Notes.	
4		Week 5	Draw working drawing for above mentioned drawing at serial number 5 showing: a. Foundation plan to the scale 1:50 b. Detailed enlarged section of RCC column and footing with plinth filling. c. Detailed enlarged section of RCC Beam, Lintel and Chajjas.	
			Draw working drawing for above mentioned drawing at serial number 5 showing: a. Foundation plan to the scale 1:50 b. Detailed enlarged section of RCC column and footing with plinth filling. c. Detailed enlarged section of RCC Beam, Lintel and Chajjas.	
		Week 2	A CONTRACTOR OF THE PROPERTY O	7.0
		Week 3	Draw the above-mentioned drawing at serial number 5 using CAD software and enclose the printout. a. Developed plan b. Elevation. c. Section passing through Staircase, W.C. and Bath d. Foundation plan. e. Site plan (1:200), area statement, Schedule of openings and construction notes.	-riie
5	May	Week 4	Draw the above-mentioned drawing at serial number 5 using CAD software and enclose the printout. a. Developed plan b. Elevation. c. Section passing through Staircase, W.C. and Bath d. Foundation plan. e. Site plan (1:200), area statement, Schedule of openings and construction notes.	
		Week (Draw the above-mentioned drawing at serial number 5 using CAD software and enclose the printout. a. Developed plan b. Elevation. c. Section passing through Staircase, W.C. and Bath d. Foundation plan. e. Site plan (1:200), area statement, Schedule of openings and construction notes.	a.

Signature of Heacher (Er Neha Thakur)

		Gove	rnment Polytechnic Kullu at Se		P. 175138				
			Department of Civil						
			Lesson Plan w.e.f 27/01/	2025 to 29/05/2025					
Name	of Subje	ect:-	Engineering Geology	Session:-	Jan-May 2025				
Name	Name of Teacher:-		Er Neha Thakur	Semester:-	^{6th} Semester				
Design	nation:-		Lecturer (Civil Engg)	Scheme:-	N-2022				
Sr No	Month	Week	C	ontents		Remarks			
1	January	Week 5	Unit I: Introduction. Introduction and branches of Geology, Importance of Engineering Geology.						
		Week 1	Scope of engineering geology: Geol resource development, Geology in to	ogy in construction jobs, own and regional planning	Geology in water ng.				
	February	Week 2	Unit II: The Earth A brief account of theory of origin of	Earth. Size, Shape, mas	ss, density.				
2		Week 3	Atmosphere of Earth. Internal structi	ure and chemical compo	sition of Earth.				
		Week 4	Unit II: General Geology Geological work of atmosphere (rock	k Weathering) types and	effect.				
\s.in	farch	Week 1	Geological works of rivers, wind, gla and deposition	aciers as agents of erosi	on, transportation				
NAME OF		March	Week 2	Resulting Features and Importance	in Engineering.				
3			Marc	Marc	Varc	Varc	Week 3	Cla	iss Test -l
1: 16	2	Week 4	Unit III: Study of rocks Types of rocks (Igneous, Sediments composition and engineering import		s): Their				
		Week 1	Engineering properties of rocks as n stones,properties and important buil	naterial for construction: ding stones.	building				
		Week 2	Building stone as road material, qua	lity of aggregate, commo	on road aggregate				
	April	Week 3	Cla	ss Test -II					
2	, ¥	Week 4	Unit IV: Structural Geology	e dip.					
4	32	Week 5	Folds, elements of fold, types of fold classification of faults. Significance		terminology,				
7		Week 1	Unit V: Geological investigations Introduction and objective of geolog	gical investigations					
2	≥	Week 2		ouse Test					
5	May	Week 3	Methods of geological investigations	s, Geophysical investigat	tions				
	1.00	Week 4	Seismic method of investigation, Gr	ravitational method					
		Week 5		Revision					

Signature of Teacher (Er Neha Thakur)