Government Polytechnic Kullu at Seobagh Distt Kullu H.P. 175138

Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Semester: **4th Sem**

Session: **Jan- May 2026**

Subject: **Hydraulics (CEPC202)**

Name of the teacher : **Er Parveen Kumar**

Designation : **Lecturer Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	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.
2	2nd (02 Feb - 07 Feb)	Unit – 1 Pressure measurement and Hydrostatic pressure	□ Various types of pressure – Atmospheric Pressure, Gauge Pressure, Absolute Pressure, Vacuum Pressure. Concept of Pressure head and its unit, Pascal's law of fluid pressure and its uses. □ Measurement of differential Pressure by different methods
3	3rd (09 Feb - 13 Feb)	Unit – 1 Pressure measurement and Hydrostatic pressure	□ Variation of pressure with depth, Pressure diagram, hydrostatic pressure and center of pressure on immersed surfaces and on tank walls
4	4th (16 Feb - 21 Feb)	Unit – 1 Pressure measurement and Hydrostatic pressure	□ Determination of total pressure and center of pressure on sides and bottom of water tanks, sides and bottom of tanks containing two liquids, vertical surface in contact with liquid on either side.
5	5th (23 Feb - 28 Feb)	Unit– 2 Fluid Flow Parameters	□ Types of flow – Gravity and pressure flow, Laminar, Turbolent, Uniform, Non-uniform, Steady, Unsteady flow. Reynolds number. □ Discharge and its unit, continuity equation of flow.
6	6th (02 Mar - 07 Mar)	Unit– 2 Fluid Flow Parameters	□ Energy of flowing liquid: potential, kinetic and pressure energy. □ Bernoulli's theorem: statement, assumptions, equation.
7	7th (09 Mar - 13 Mar)		**1st Class Test,** Revision
8	8th (16 Mar - 20 Mar)	Unit– 3 Flow through pipes	□ Major Head loss in pipe: Frictional loss and its computation by Darcy's Welsbach equation.
9	9th (23 Mar - 28 Mar)	Unit– 3 Flow through pipes	□ Minor losses in pipe: loss at entrance, exit, sudden contraction, sudden enlargement, and fittings.
10	10th (30 Mar - 04 Apr)	Unit– 3 Flow through pipes	□ Flow through pipes in series, pipes in parallel and Dupuit's equation for equivalent pipe. □ Hydraulic gradient line and total energy line.
11	11th (06 Apr - 10 Apr)		**2nd Class Test,** Revision
12	12th (13 Apr - 18 Apr)	Unit– 4 Flow through Open Channel	□ Geometrical properties of channel section: Wetted area, wetted perimeter, hydraulic radius for rectangular and trapezoidal channel section.
13	13th (20 Apr - 25 Apr)	Unit– 4 Flow through Open Channel	□ Determination of discharge by Chezy's equation and Manning's equation. □ Conditions for most economical rectangular and trapezoidal channel section.
14	14th (27 Apr - 02 May)	Unit– 4 Flow through Open Channel	□ Discharge measuring devices: Triangular and rectangular Notches. □ Velocity measurement devices: current meter, floats and Pitot's tube. □ Specific energy diagram, Froude's Number.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)	Unit– 5 Hydraulic Pumps	□ Concept of pump, Types of pumps - centrifugal, reciprocating, submersible.
17	17th (18 May - 23 May)	Unit– 5 Hydraulic Pumps	□ Suction head, delivery head, static head, Manometric head. □ Selection and choice of pump.
18	18th (25 May - 26 May)		**Revision**

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Er Adit Rana

Government Polytechnic Kullu at Seobagh Distt Kullu H.P. 175138

Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Semester: **4th Sem**

Session: **Jan- May 2026**

Subject: **Advanced Surveying (CEPC204)**

Name of the teacher : **Er Sumedha Sharma**

Designation : **Lecturer Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	Unit – 1 Plane Table Surveying	Principles of plane table survey. Accessories of plane table and their use, Telescopic alidade. Setting of plane table; Orientation of plane table - Back sighting and Magnetic meridian method.
2	2nd (02 Feb - 07 Feb)		Methods of plane table surveys- Radiation, Intersection and Traversing. Merits and demerits of plane table survey
3	3rd (09 Feb - 13 Feb)	Unit– 2 Theodolite Surveying	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. Fundamental axes of transit Theodolite and their relationship
4	4th (16 Feb - 21 Feb)		Temporary adjustment of transit Theodolite.Measurement of horizontal angle- Direct and Repetition method Errors eliminated by method of repetition. Measurement of magnetic bearing of a line.
5	5th (23 Feb - 28 Feb)		Prolonging and ranging a line, deflection angle Measurement of vertical Angle.Theodolite traversing by included angle method and Deflection angle method.Traverse Computation-Latitude, Departure, Consecutive coordinates, independent coordinates.
6	6th (02 Mar - 07 Mar)	Unit–3 Tacheometric surveying and Curve setting	Principles of Tacheometry, Tacheometer, and its component parts. Anallatic lens.Tacheometric formula for horizontal distance with telescope horizontal and staff vertical.
7	7th (09 Mar - 13 Mar)		**1st Class Test,** Revision
8	8th (16 Mar - 20 Mar)		Field method for determining constants of tacheometer determining horizontal and vertical distances with tacheometer by fixed hair method and staff held vertical.Limitations of tacheometry.Types of curves used in roads.
9	9th (23 Mar - 28 Mar)		Designation of curves.Setting simple circular curve by offsets from long chord.
10	10th (30 Mar - 04 Apr)		Rankine's method of deflection angles.
11	11th (06 Apr - 10 Apr)		**2nd Class Test,** Revision
12	12th (13 Apr - 18 Apr)	Unit– 4 Advanced surveying equipment	Principle of Electronic Distance Meter (EDM), its component parts and their Functions
13	13th (20 Apr - 25 Apr)		use of EDM.Use of micro-optic Theodolite and Electronic Digital Use of Total Station, Use of function keys.
14	14th (27 Apr - 02 May)	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.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)		Use of Global Positioning System (G.P.S.) instruments.Geographic Information System (GIS)
17	17th (18 May - 23 May)		Overview, Components, Applications, Software for GIS.Introduction to Drone Surveying.
18	18th (25 May - 26 May)		**Revision**

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering** Subject: **Building Planning & Drawing**

Semester: **4th Sem** Name of the teacher : **Er Neha Thakur**

Session: **Jan- May 2026** Designation : **Lect. Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	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.
2	2nd (02 Feb - 07 Feb)		Types of lines-visible lines, centre line, hidden line, section line, dimension line, extension line, pointers,arrowhead, or dots.
3	3rd (09 Feb - 13 Feb)		Appropriate size of lettering and numerals for titles, sub-titles, notes, and dimensions. Types of scale- Monumental, Intimate, criteria for Proper Selection of scale for various types of drawing.
4	4th (16 Feb - 21 Feb)		Sizes of various standard papers/sheets.Reading and interpreting readymade Architectural building drawing
5	5th (23 Feb - 28 Feb)	Unit– II Planning of Building	Principles of planning for Residential and Public building- Aspect, Prospect, Orientation, Grouping,Privacy, Elegance, Flexibility, Circulation, Furniture requirements, Sanitation, Economy.
6	6th (02 Mar - 07 Mar)		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
7	7th (09 Mar - 13 Mar)		**1st Class Test**
8	8th (16 Mar - 20 Mar)		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 andstaircase as per principles of planning
9	9th (23 Mar - 28 Mar)		Line plans for public building-school building, primary health centre, restaurant, bank, post office, hostel, Function Hall and Library.
10	10th (30 Mar - 04 Apr)	Unit– III Drawing of Load Bearing Structure	Drawing of Single storey Load Bearing residential building (2 BHK) with staircase.Data drawing –plan, elevation, section, site plan, schedule of openings.
11	11th (06 Apr - 10 Apr)		**2nd Class Test**
12	12th (13 Apr - 18 Apr)		Construction notes with specifications, area statement, Planning and design of staircase- Rise and Tread for residential and public building.Working drawing – developed plan, elevation, section passing through staircase or WC and bath. Foundation plan of Load bearing structure.

13	13th (20 Apr - 25 Apr)	**Unit– IV Drawing of Framed Structure**	Drawing of Two storeyed Framed Structure (G+1), residential building (2 BHK) with stair- case. Working drawing of Framed Structure – developed plan, elevation, section passing through staircase orWC and bath.
14	14th (27 Apr - 02 May)		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.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 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.
17	17th (18 May - 23 May)		Drawing with CAD- Draw commands, modify commands, layer commands
18	18th (25 May - 26 May)		Drawing with CAD- Draw commands, modify commands, layer commands

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering** Subject: **Transportation Engineering**

Semester: **4th Sem** Name of the teacher : **Er Neha Thakur**

Session: **Jan- May 2026** Designation : **Lect. Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	**Unit I: IOverview of Highway Engineering**	Role of transportation in the development of nation, Scope and Importance of roads in India and its Characteristics.Different modes of transportation – land way, waterway, airway. Merits and demerits of roadway and railway.
2	2nd (02 Feb - 07 Feb)		General classification of roads.Selection and factors affecting road alignment.
3	3rd (09 Feb - 13 Feb)	**Unit– 2 Geometric Design of Highway**	Camber: Definition, purpose, types as per IRC – recommendations. Kerbs: Road margin, road formation, right of way Design speed and various factors affecting design speed as per IRC –recommendations
4	4th (16 Feb - 21 Feb)		.Gradient: Definition, types as per IRC – Recommendations.Sight distance (SSD): Definition, types IRC – recommendations, simple numerical.
5	5th (23 Feb - 28 Feb)		Curves: Necessity, types: Horizontal, vertical curves. Super elevation: Definition, formula for calculating minimum and maximum
6	6th (02 Mar - 07 Mar)		Super elevation and method of providing super-elevation.Standards cross-sections of national highway in embankment and cutting.
7	7th (09 Mar - 13 Mar)		**1st Class Test**
8	8th (16 Mar - 20 Mar)	**Unit– 3 Construction of Road Pavements**	Types of road materials and their Tests – Test on aggregates-Flakiness and Elongation Index tests, Angularity Number test, test on Bitumen- penetration, Ductility, Flash and Fire point test and Softening point test.
9	9th (23 Mar - 28 Mar)		Pavement – Definition, Types, Structural Components of pavement and their functions Construction of WBM road. Merits and demerits of WBM & WMM road.Construction of Flexible pavement / Bituminous Road, Types of Bitumen and its proper- ties, Emulsion,Cutback, Tar
10	10th (30 Mar - 04 Apr)		Terms used in BR-prime coat, tack coat, seal coat, Merits and Demerits of BR.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.
11	11th (06 Apr - 10 Apr)		**2nd Class Test**
12	12th (13 Apr - 18 Apr)	**Unit– 4 Basics of Railway**	Classification of Indian Railways, zones of Indian Railways. Permanent way: Ideal requirement, Components; Rail Gauge, types, factors affecting selection of a gauge

13	13th (20 Apr - 25 Apr)	**Engineering**	Rail, Rail Joints - requirements, types.Creep of rail causes and prevention
14	14th (27 Apr - 02 May)	**Unit-5 Track geometrics, Construction and Maintenance**	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, side drains,
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)		Railway Track Geometrics: Gradient, curves- types and factors affecting, grade compensation, superelevation, limits of Super elevation on curves, cant deficiency, negative cant, coning of wheel, tilting of rail. Branching of Tracks, Points and crossings, Turn out- types, components, functions and inspection. Track junctions: crossovers, scissor cross over, diamond crossing, track triangle.
17	17th (18 May - 23 May)		Station -Purpose, requirement of railway station, important technical terms, types of rail- way station, factors affecting site selection for railway station Station yard: Classification- Passenger, goods, locomotive and marshalling yards. Function & drawbacks of marshalling yards.
18	18th (25 May - 26 May)		Track Maintenance- Necessity, Classification, Tools required for track maintenance with their functions, Organization of track maintenance, Duties of permanent way inspector, gang mate and Key man.

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Subject: **Construction Management (CEPE210- (I))**

Semester: **4th Sem**

Name of the teacher : **Er Lokesh Sharma**

Session: **Jan- May 2026**

Designation : **Sr Lect Civil Engg.**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	UNIT - 1	**Construction industry and management** Organization-objectives, principles of organization, types of organization: government/public and private construction industry, Role of various personnel in construction organization
2	2nd (02 Feb - 07 Feb)	UNIT - 1	Agencies associated with construction work- owner, promoter, builder, designer, architects.
3	3rd (09 Feb - 13 Feb)	UNIT - 1	Role of consultant for various activities: Preparation of Detailed Project Report (DPR), Monitoring of progress and quality, settlement of disputes
4	4th (16 Feb - 21 Feb)	UNIT - 2	**Site Layout** Principles governing site layout.
5	5th (23 Feb - 28 Feb)	UNIT - 2	Factors affecting site layout. Preparation of site layout.
6	6th (02 Mar - 07 Mar)	UNIT - 2	Land acquisition procedures and providing compensation
7	7th (09 Mar - 13 Mar)		**1st Class Test,** Revision
8	8th (16 Mar - 20 Mar)	UNIT - 3	**Planning and scheduling** Identifying broad activities in construction work & allotting time to it, Methods of Scheduling,
9	9th (23 Mar - 28 Mar)	UNIT - 3	Development of bar charts, Merits & limitations of bar chart. Elements of Network: Event, activity, dummy activities, Precautions in drawing Network, Numbering the events.
10	10th (30 Mar - 04 Apr)	UNIT - 4	CPM networks, activity time estimate, Event Times by forward & backward pass calculation, start and finish time of activity, project duration. Floats: Types of Floats-Free, independent, and total floats,critical activities and critical path,
11	11th (06 Apr - 10 Apr)		**2nd Class Test,** Revision
12	12th (13 Apr - 18 Apr)	UNIT - 4	Purpose of crashing a network, Normal Time and Cost, Crash Time and Cost, Cost slope,Optimization of cost and duration.
13	13th (20 Apr - 25 Apr)	UNIT - 4	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
14	14th (27 Apr - 02 May)	UNIT - 5	**Construction Contracts and Specifications** Types of Construction contracts

15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)	UNIT - 5	Contract documents, specifications, general special conditions Contract Management, procedures involved in arbitration and settlement
17	17th (18 May - 23 May)	UNIT - 6	**Safety in Construction** Safety in Construction Industry—Causes of Accidents, Remedial and Preventive Measures.
18	18th (25 May - 26 May)	UNIT - 6	Labour Laws and Acts pertaining to Civil construction activities

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering** Subject: **Railways, Bridges & Tunnels (CEPE212 –(II))**

Semester: **4th Sem** Name of the teacher : **Er Adit Rana**

Session: **Jan- May 2026** Designation : **HOD Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	PART–1: RAILWAYS	Introduction to Indian Railways, Railways surveys: Factors influencing the railways route, brief description of various types of railway
2	2nd (02 Feb - 07 Feb)		Classification of permanent way describing its component part, Rail Gauge; Definition, types, practice in India, Rail-types of rails
3	3rd (09 Feb - 13 Feb)		Rail Fastening: Rail joints, types of rail joints, fastening for rails, Fish plates, spikes bearing plates,
4	4th (16 Feb - 21 Feb)		Sleepers: Functions of sleepers, types of sleepers, requirements of an ideal material of Sleepers.
5	5th (23 Feb - 28 Feb)		Ballast: Function of ballast, requirements of an ideal material of ballast, Crossing and signalling: Brief description regarding different types of crossing/signalling
6	6th (02 Mar - 07 Mar)		Maintenance of track: Necessity, track fixtures; maintenance and boxing of ballast, maintenance gauges,tools., Drains, methods of construction.
7	7th (09 Mar - 13 Mar)		**1st Class Test,** Revision
8	8th (16 Mar - 20 Mar)	PART-II: BRIDGES	Introduction, Bridge–its function and component parts, difference between a bridge and A culvert, Classification of Bridges
9	9th (23 Mar - 28 Mar)		Their structural elements and suitability:1) According to life-permanent and temporary, 2) According to deck level–Deck, through and semi-through, 3) According to material–timber, masonry, steel, RCC, pre-stressed
10	10th (30 Mar - 04 Apr)		IRC classification, Bridge Foundations: Introduction to open foundation pile foundation, Well foundation, Piers, Abutments and Wing walls
11	11th (06 Apr - 10 Apr)		**2nd Class Test,** Revision
12	12th (13 Apr - 18 Apr)	PART-II: BRIDGES	Piers–definition, parts; types–solid (masonry and RCC), open Abutment sand wing walls–definition, types of abutment (straight and tee), abutment with wing walls (straight, splayed, return and curved)
13	13th (20 Apr - 25 Apr)	PART–III: TUNNELS	Definition and necessity of tunnels
14	14th (27 Apr - 02 May)		Typical section of tunnels for a national highway and single and double broad gauge railway track.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)		Ventilation-necessity and methods of ventilation, by blowing, exhaust and combination of blowing and exhaust
17	17th (18 May - 23 May)		Drainage method of draining water in tunnels
18	18th (25 May - 26 May)		Lighting in tunnels & lining of tunnels.

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Semester: **4th Sem**

Session: **Jan- May 2026**

Subject: **Hydraulics Lab (CEPC214)**

Name of the teacher : **Er Parveen Kumar**

Designation : **Lecturer Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	Practical 1	Use piezometer to measure pressure at a given point.
2	2nd (02 Feb - 07 Feb)	Practical 2	Use U tube differential manometer to measure pressure difference between two given points.
3	3rd (09 Feb - 13 Feb)	Practical 3	Find the resultant pressure and its position for given situation of liquid in a tank.
4	4th (16 Feb - 21 Feb)		**Revision**
5	5th (23 Feb - 28 Feb)	Practical 4	Use Reynold's apparatus to determine type of flow.
6	6th (02 Mar - 07 Mar)	Practical 5	Use Bernoulli's apparatus to apply Bernoulli's theorem to get total energy line for a flow in a closed conduit of varying cross sections.
7	7th (09 Mar - 13 Mar)		**Revision**
8	8th (16 Mar - 20 Mar)	Practical 6	Determine minor losses in pipe fittings due to sudden contraction and sudden enlargement.
9	9th (23 Mar - 28 Mar)	Practical 7	Determine minor losses in pipe fitting due to Bend and Elbow.
10	10th (30 Mar - 04 Apr)	Practical 8	Calibrate Venturimeter to find out the discharge in a pipe.
11	11th (06 Apr - 10 Apr)		**Revision**
12	12th (13 Apr - 18 Apr)	Practical 9	Calibrate the Orifice to find out the discharge through a tank.
13	13th (20 Apr - 25 Apr)	Practical 10	Use Current meter to measure the velocity of flow of water in open channel.
14	14th (27 Apr - 02 May)	Practical 11	Use Pitot tube to measure the velocity of flow of water in open channel.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)	Practical 12	Use triangular notch to measure the discharge through open channel.
17	17th (18 May - 23 May)	Practical 13	Use Rectangular notch to measure the discharge through open channel.
18	18th (25 May - 26 May)		**Revision**

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Semester: **4th Sem**

Session: **Jan- May 2026**

Subject: **Advanced Surveying Lab (CEPC216)**

Name of the teacher: **Er Sumedha Sharma**

Designation : **Lecturer Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	Practical 1	Use plane table survey to prepare plans of a plot of seven-sided closed traverse by Radiation Method.
2	2nd (02 Feb - 07 Feb)	Practical 2	Use plane table survey to prepare plans, locate details by Intersection Method.
3	3rd (09 Feb - 13 Feb)	Practical 3	Use plane table survey to prepare plans, locate details by Traversing Method.
4	4th (16 Feb - 21 Feb)	Practical 4	Use plane table survey to carry out Survey Project for closed traverse for minimum five sides around a building.
5	5th (23 Feb - 28 Feb)		**Revision**
6	6th (02 Mar - 07 Mar)	Practical 5	Use transit theodolite to measure Horizontal and Vertical angle by Direct Method.
7	7th (09 Mar - 13 Mar)	Practical 6	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Theodolite Survey Project.
8	8th (16 Mar - 20 Mar)	Practical 7	Use Theodolite as a Tacheometer to compute reduced levels and horizontal distances.
9	9th (23 Mar - 28 Mar)	Practical 8	Set out a circular curve by Rankine's Method of Deflection Angles.
10	10th (30 Mar - 04 Apr)	Practical 9	Use micro-optic Theodolite to Measure Horizontal angle by Direct Method.
11	11th (06 Apr - 10 Apr)		**Revision**
12	12th (13 Apr - 18 Apr)	Practical 10	Use EDM to measure horizontal distance.
13	13th (20 Apr - 25 Apr)	Practical 11	Use Total station instrument to measure horizontal distances.
14	14th (27 Apr - 02 May)	Practical 12	Use Total station instrument to measure vertical angle.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)	Practical 13	Use Total station instrument to carry out Survey Project for closed traverse for minimum five sides.
17	17th (18 May - 23 May)	Practical 14	Plot the traverse on A1 size imperial drawing sheet for the collected data from preceding Total Station Survey Project.
18	18th (25 May - 26 May)	Practical 15	Use GPS to locate the coordinates of a station.

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Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Subject: **Building Planning & Drawing Lab**

Semester: **4th Sem**

Name of the teacher : **Er Neha Thakur**

Session: **Jan- May 2026**

Designation : **Lect. Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)		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	2nd (02 Feb - 07 Feb)		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.
3	3rd (09 Feb - 13 Feb)		Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)
4	4th (16 Feb - 21 Feb)		Draw line plan to suitable scale (1BHK, staircase, WC and Bathroom)
5	5th (23 Feb - 28 Feb)		Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).
6	6th (02 Mar - 07 Mar)		Draw line plans to suitable scale for the following Public Buildings (School Building and Community Hall).
7	7th (09 Mar - 13 Mar)		**1st Class Test**
8	8th (16 Mar - 20 Mar)		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.
9	9th (23 Mar - 28 Mar)		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.
10	10th (30 Mar - 04 Apr)		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.
11	11th (06 Apr - 10 Apr)		**2nd Class Test**

12	12th (13 Apr - 18 Apr)		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.
13	13th (20 Apr - 25 Apr)		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.
14	14th (27 Apr - 02 May)		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.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)		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.
17	17th (18 May - 23 May)		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.
18	18th (25 May - 26 May)		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.

Teacher signature
Er Neha Thakur

H.O.D Civil Engg
Er Adit Rana

Government Polytechnic Kullu at Seobagh Distt Kullu H.P. 175138

Civil Engineering Department

Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering**

Semester: **4th Sem**

Session: **Jan- May 2026**

Subject: **Transportation Engineering Lab**

Name of the teacher : **Er Neha Thakur**

Designation : **Lecturer Civil Engg**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)		Draw the sketches showing standard cross sections of Expressways, Freeways, NH/SH, MDR/ODR
2	2nd (02 Feb - 07 Feb)		Flakiness and Elongation Index of aggregates
3	3rd (09 Feb - 13 Feb)		Angularity Number of aggregates.
4	4th (16 Feb - 21 Feb)		Aggregate impact test
5	5th (23 Feb - 28 Feb)		Los Angeles Abrasion test
6	6th (02 Mar - 07 Mar)		Aggregate crushing test
7	7th (09 Mar - 13 Mar)		**1st Class Test**
8	8th (16 Mar - 20 Mar)		Softening point test of bitumen
9	9th (23 Mar - 28 Mar)		Penetration test of bitumen
10	10th (30 Mar - 04 Apr)		Flash and Fire Point test of bitumen
11	11th (06 Apr - 10 Apr)		**2nd Class Test**
12	12th (13 Apr - 18 Apr)		Ductility test of Bitumen
13	13th (20 Apr - 25 Apr)		Visit the constructed road for visual inspection to identify defects and suggest remedial measures.
14	14th (27 Apr - 02 May)		Visit the constructed road for visual inspection to identify defects and suggest remedial measures.
15	15th (04 May -08 May)		**House Test**
16	16th (11 May - 16 May)		Prepare the photographic report containing details for experiment No. 11
17	17th (18 May - 23 May)		Visit the hill road constructed site to understand its component
18	18th (25 May - 26 May)		**Revision**

Teacher signature
Er Neha Thakur

H.O.D Civil Engg
Er Adit Rana

Government Polytechnic Kullu at Seobagh Distt Kullu H.P. 175138
Civil Engineering Department
Lesson Plan w.e.f 27/01/2026 to 27/05/2026

Branch : **Civil Engineering** •
Semester: **4th Sem**
Session: **Jan- May 2026**

Subject:-**EIKT**
Name of SubjectTeacgher : **Lekh Raj Sharma**
Designation : **HOD AS&H**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	27 Jan - 31 Jan	Unit 1 Indian Knowledge System (IKS):	□ Introduction and Function of Indian Knowledge System(IKS). □ The Basic Structure of Indian Knowledge System(IKS) (only Introduction)
2	02 Feb - 07 Feb	Unit 1 Indian Knowledge System (IKS):	1. The 4 Vedas, Namly ऋग्वेद (Rigveda) ,यजुर्वेद (Yajurveda).सामर्वेद (Samaveda) ,अथर्ववर्वेद (Atharvaveda) . 2. The 4 UpVedas, Namely आयुर्वेद (Ayurveda (health-care)), धनुर्वेद (Dhanurveda (archery)), गंधर्ववर्वेद (Gandharva-veda
3	09 Feb - 13 Feb	Unit 1 Indian Knowledge System (IKS):	स्थापत्यवेद 3. The 6 Vedagangs ,namely Shiksha (शिक्षा), Kalpa (कल्प), Vykarana (व्याकरण), Chhandas छंद दस), Nirukta (शनरुक्त), and Jyotisha(ज्योशिष). 4. Itihasa (इशिहास) (Ramayana रामायण and Mahabharata महाभारि) and Purana पुराण
4	16 Feb - 21 Feb	Unit 1 Indian Knowledge System (IKS):	5. Dharmashatra धमविास्त्र (Manusmriti मनुस्मृशि, Yajnavalkya-s nriti याज्ञर्वल्क्यस्मृशि, etc.). 6. Darshan दिवन (आस्तिक ि था नास्तिक). 7. Nyaya न्याय (Logic िकव ि ास्त्र and Epistemology ज्ञानमीमांसा)
5	23 Feb - 28 Feb	Unit 2 Modern Science	• Modern science: Introduction, Characteristics, importance and Example
6	02 Mar - 07 Mar	Unit 2 Modern Science	• Difference between modern Science and Indian knowledge system
7	09 Mar - 13 Mar		**Class Test -I,Revision**
8	16 Mar - 20 Mar	Unit 2 Modern Science	• Role of IKS in modern science.
9	23 Mar - 28 Mar	Unit 3 : Traditional knowledge	• Traditional knowledge: Definition, nature, characteristics, scope and importance
10	30 Mar - 04 Apr	Unit 3 : Traditional knowledge	• Indigenous Knowledge (IK): characteristics
11	06 Apr - 10 Apr		**Class Test -II ,Revision**
12	13 Apr - 18 Apr	Unit 3 : Traditional knowledge	• Traditional knowledge vis-a-vis Indigenous knowledge • Traditional knowledge Vs western knowledge • The need for protecting traditional knowledge
13	20 Apr - 25 Apr	Unit 4 : Yoga and Holistic Health	• Yoga: Meaning and Importance of Yoga • Yoga and physical health, Yoga and psychological health, Yoga and intellectual health

27/01/26

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	27 Apr - 02 May	Unit 4 : Yoga and Holistic Health	Yoga and spiritual health, Yoga and social approach. • Introduction to Ashtanga Yoga, Yogic Kriyas (Shat Karma) • Pranayama and its types; Active lifestyle and stress management through Yoga • Physical
15	04 May -08 May		**House Test -I**
16	11 May - 16 May	Unit 4 : Yoga and Holistic Health	• Traditional sports & Regional Games for promoting wellness: • Leadership through Physical Activity and Sports; Introduction to First Aid
17	18 May - 23 May	Unit 5:Himachal Pradesh -A Basic Information	• History, Culture, Heritage/ Tradition, Customs & Manners, • Regional Knowledge, Geographical Features, Constitutional History • Tourism Place & Scope • Festivals and Fairs
18	25 May - 26 May	Unit 5:Himachal Pradesh -A Basic Information	Revision Work and discussion on question Paper

Teacher signature
L.R.Sharma
27/01/17

H.O.D AS&H
L.R.Sharma
27/01/17