

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: **6th Sem**

Session: **Jan- May 2026**

Subject: **Public Health Engineering**

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)	Unit I Sources, Demand and Quality of water	Water supply schemes - Objectives, components, Sources of water: Surface and Subsurface sources of water, Intake Structures, Definition and types, Factors governing the location of an intake structure, Types of intakes.
2	2nd (02 Feb - 07 Feb)		Demand of water: Factors affecting rate of demand, Variations of water demands, forecasting of population, Methods of forecasting of population, (Simple problems on forecasting of population), Design period, estimating of quantity of water supply required for city or town.
3	3rd (09 Feb - 13 Feb)		Quality of water: Need for analysis of water, Characteristics of water- Physical, Chemical and Biological tests.
4	4th (16 Feb - 21 Feb)	UNIT II Purification of water	Purification of Water: Objectives of water treatment, Aeration- objects and methods of aeration, Plain sedimentation, Sedimentation with coagulation, principles of coagulation, types of coagulants, Jar Test, process of coagulation.
5	5th (23 Feb - 28 Feb)		Filtration - mechanization of filtration, classification of filters: slow sand filter, rapid sand filter, pressure filter. Construction and working of slow sand filter and rapid sand filter, operational problems in filtration.
6	6th (02 Mar - 07 Mar)		Disinfection: Objects, methods of disinfection, Chlorination Application of chlorine, forms of chlorination, types of chlorination practices, residual chlorine and its importance, Flow diagram of water treatment plants.
7	7th (09 Mar - 13 Mar)		1st Class Test
8	8th (16 Mar - 20 Mar)	UNIT III Conveyance and Distribution of water	Conveyance: Types of Pipes used for conveyance of water, choice of pipe material, Types of joints & Types of valves- their use, location and function on a pipeline
9	9th (23 Mar - 28 Mar)		Distribution of water: Methods of distribution of water- Gravity, pumping, and combined system, Service reservoirs - functions and types,
10	10th (30 Mar - 04 Apr)		Layouts of distribution of Water-Dead end system, grid iron system, circular system, radial system; their suitability, advantages, and disadvantages
11	11th (06 Apr - 10 Apr)		2nd Class Test
12	12th (13 Apr - 18 Apr)		Building Sanitation: Necessity of sanitation, Necessity to treat domestic sewage, Definitions - Sewage, Sullage, types of sewage

13	13th (20 Apr - 25 Apr)	UNIT IV Domestic sewage and System of Sewerages	Definition of the terms related to Building Sanitation- Water pipe, Rainwater pipe, Soil pipe, Sullage pipe, Vent pipe. Systems of Sewerage and Sewer Appurtenances:
14	14th (27 Apr - 02 May)		Types of Sewers, Systems of sewerage, self- cleansing velocity and non-scouring velocity, Laying, Testing and maintenance of sewers, Manholes and Drop Manhole-component parts, location, spacing, construction details, Sewer Inlets, Street Inlets.
15	15th (04 May -08 May)		House Test
16	16th (11 May - 16 May)	UNIT V Characteristic s and treatment of Sewage	Analysis of sewage: Characteristics of sewage, B.O.D., C.O.D. and its significance. Central Pollution Control Board Norms for discharge of treated sewage
17	17th (18 May - 23 May)		Objects of sewage treatment and flow diagram of conventional sewage treatment plant. Treatment of Sewage: Screening, Types of screens.
18	18th (25 May - 26 May)		Grit removal, Skimming, Sedimentation of sewage, Aerobic and anaerobic process, Sludge digestion, trickling filters, Activated sludge process, Disposal of sewage, Oxidation Pond, Oxidation ditch. Septic tank.

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: 6th Sem

Session: Jan- May 2026

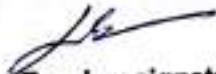
Subject: **Design of Steel Structures (CEPC 304)**

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

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	Structural Steel & Sections • Terminology. Properties of structural steel as per IS Code. grades of steel. Designation of structural steel sections as per IS handbook and IS: 800. • Classification of sections in Limit State Method. Hollow Sections: Hot rolled and Cold formed. advantages and applications
2	2nd (02 Feb - 07 Feb)	UNIT - 2	Bolted Connections (LSM) • Types of Bolts . Forces in Bolts.
3	3rd (09 Feb - 13 Feb)	UNIT - 2	Types of Bolted joints with Sketches (Butt Joint and Lap Joint).
4	4th (16 Feb - 21 Feb)	UNIT - 2	Terminology & IS 800 Provisions for Gauge, Pitch, End & Edge Distance. Patterns Of Bolting (Chain, Diamond, Staggered). •
5	5th (23 Feb - 28 Feb)	UNIT - 2	Gross and net cross-sectional area of bolted members.
6	6th (02 Mar - 07 Mar)	UNIT - 2	Design of bolted connections & Efficiency of a joint.
7	7th (09 Mar - 13 Mar)		1st Class Test, Revision
8	8th (16 Mar - 20 Mar)	UNIT - 3	Welded Connections (LSM) • Introduction. advantages. and disath images of welded joint. defects in welds. Types of welds and their symbols. Terminology &
9	9th (23 Mar - 28 Mar)	UNIT - 3	Design of fillet weld (Plate section. Single & Double Angle Section) and butt weld subjected to axial load. (Descriptive No numerical on plug and slot welds)
10	10th (30 Mar - 04 Apr)	UNIT - 4	Tension Members (LSM) Introduction to tension members. Types of section used in axial tension. Gross and net cross-sectional area of tension members
11	11th (06 Apr - 10 Apr)		2nd Class Test, Revision
12	12th (13 Apr - 18 Apr)	UNIT - 4	Shear Lag Effect. • Analysis & Design of tension member with welded and bolted connections (Plate. Single & Double Angle Sections only I. Introduction to lug Angle and Tension splice.
13	13th (20 Apr - 25 Apr)	UNIT - 5	Compression Members (LSM) Types or sections used. Effecthe length. Radius of gyration. slenderness ratio and its limit. Buckling Class. Effective length.
14	14th (27 Apr - 02 May)	UNIT - 5	Analysis and Design of axially loaded " elded and bolted connections mine tables and Equations of IS 800 (I-Section. Double Angle Section and Single angle section).
15	15th (04 May -08 May)		House Test

16	16th (11 May - 16 May)	UNIT - 6	Beams (LSM) Introduction. Different steel sections used. Simple and built-up
17	17th (18 May - 23 May)	UNIT - 6	Plastic liner. Plastic section Modulus. Class of Section. • Design of simple I section
18	18th (25 May - 26 May)	UNIT - 6	Check for shear only (Low Shear & High Shear).


Teacher signature
 Er Lokesh Sharma


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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, Electrical,
Automobile)Engineering

Semester: 6th Sem

Session: Jan- May 2026

Subject: Entrepreneurship and Start-ups

Name of the teacher : Neetu Thakur

Designation : Lecturer English

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	UNIT 1 – Introduction to Entrepreneurship and Start-Ups	Definitions, Traits of an entrepreneur, Intrapreneurship, Motivation.
2	2nd (02 Feb - 07 Feb)		Types of Business Structures, Similarities/differences between entrepreneurs and managers.
3	3rd (09 Feb - 13 Feb)		Similarities/differences between entrepreneurs and managers.
4	4th (16 Feb - 21 Feb)	UNIT 2 – Business Ideas and their implementation	Discovering ideas and visualizing the business
5	5th (23 Feb - 28 Feb)		Discovering ideas and visualizing the business, Activity map Business Plan
6	6th (02 Mar - 07 Mar)	UNIT 3 –Idea to Start-up	Market Analysis–Identifying the target market,
7	7th (09 Mar - 13 Mar)		1st Class Test, Revision
8	8th (16 Mar - 20 Mar)		Competition evaluation and Strategy Development, Marketing and accounting, Risk analysis
9	9th (23 Mar - 28 Mar)	UNIT 4 –Management	Risk analysis Company's Organization Structure,
10	10th (30 Mar - 04 Apr)		Recruitment and management of talent. Financial organization and management
11	11th (06 Apr - 10 Apr)		2nd Class Test, Revision
12	12th (13 Apr - 18 Apr)		Recruitment and management of talent. Financial organization and management
13	13th (20 Apr - 25 Apr)	UNIT 5-Financing and Protection of Ideas	Introduction
14	14th (27 Apr - 02 May)		Financing methods available for start-ups in India Communication of Ideas to potential investors–Investor Pitch
15	15th (04 May -08 May)		House Test
16	16th (11 May - 16 May)		Financing methods available for start-ups in India Communication of Ideas to potential investors–Investor Pitch
17	17th (18 May - 23 May)	UNIT 6 –Exit strategies for entrepreneurs	Introduction, bankruptcy, and succession and harvesting strategy.
18	18th (25 May - 26 May)		bankruptcy, and succession and harvesting strategy.


Teacher signature 27/01/26
Neetu Thakur


H.O.D
E. ADIT RANA

Branch : Civil Engineering

Semester: 6th Sem

Session: Jan- May 2026

Subject: Engineering Geology (CEOE 302)

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 I: Introduction	Introduction and branches of Geology, Importance of Engineering Geology.
2	2nd (02 Feb - 07 Feb)	Unit I: Introduction	Scope of engineering geology: Geology in construction jobs, Geology in water resource development, Geology in town and regional planning
3	3rd (09 Feb - 13 Feb)	Unit II: The Earth	A brief account of theory of origin of Earth. Size, Shape, mass, density.
4	4th (16 Feb - 21 Feb)	Unit II: The Earth	Atmosphere of Earth. Internal structure and chemical composition of Earth.
5	5th (23 Feb - 28 Feb)	Unit III: General Geology	Geological work of atmosphere (rock Weathering) types and effect.
6	6th (02 Mar - 07 Mar)	Unit III: General Geology	Geological works of rivers, wind, glaciers as agents of erosion, transportation and deposition Resulting Features and Importance in Engineering.
7	7th (09 Mar - 13 Mar)		1st Class Test, Revision
8	8th (16 Mar - 20 Mar)	Unit IV: Study of rocks	Types of rocks (Igneous, Sedimentary & Metamorphic rocks): Their composition and engineering importance.
9	9th (23 Mar - 28 Mar)	Unit IV: Study of rocks	Engineering properties of rocks as material for construction: building stones, properties and important building stones.
10	10th (30 Mar - 04 Apr)	Unit IV: Study of rocks	Building stone as road material, quality of aggregate, common road aggregate
11	11th (06 Apr - 10 Apr)		2nd Class Test, Revision
12	12th (13 Apr - 18 Apr)	Unit V: Structural Geology	Dip and strike, apparent dip and true dip.
13	13th (20 Apr - 25 Apr)	Unit V: Structural Geology	Folds, elements of fold, types of fold, causes of folding. Fault terminology, classification of faults. Significance of faults.
14	14th (27 Apr - 02 May)	Unit VI: Geological investigations	Introduction and objective of geological investigations
15	15th (04 May - 08 May)		House Test
16	16th (11 May - 16 May)	Unit VI: Geological investigations	Methods of geological investigations, Geophysical investigations
17	17th (18 May - 23 May)	Unit VI: Geological investigations	Seismic method of investigation, Gravitational method Acoustic methods.
18	18th (25 May - 26 May)		Revision

Teacher signature
Er Parveen Kumar

Er Adit Rana
H.O.D Civil Engg
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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: 6th Sem

Session: Jan- May 2026

Subject: Disaster Management OE-III

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 – I: Understanding Disaster	Understanding the Concepts and definitions of Disaster, Hazard, Vulnerability, Risk, Capacity
2	2nd (02 Feb - 07 Feb)		Disaster and Development, and disaster management.
3	3rd (09 Feb - 13 Feb)	Unit – II: Types, Trends, Causes, Consequences and Control of Disasters	Geological Disasters (earthquakes, landslides, tsunami, mining);
4	4th (16 Feb - 21 Feb)		Hydro-Meteorological Disasters (Floods, cyclones, lightning, thunderstorms, hailstorms, avalanches, droughts, cold and heat waves)
5	5th (23 Feb - 28 Feb)		Technological Disasters (chemical, industrial, radiological, nuclear) and Manmade Disasters (building collapse, rural and urban fire, road and rail accidents, nuclear, radiological, chemicals and biological disasters)
6	6th (02 Mar - 07 Mar)		Global Disaster Trends – Emerging Risks of Disasters – Climate Change and Urban Disasters.
7	7th (09 Mar - 13 Mar)		1st Class Test
8	8th (16 Mar - 20 Mar)	Unit- III: Disaster Management	Cycle and Framework Disaster Management Cycle – Paradigm Shift in Disaster Management. Pre-Disaster – Risk Assessment and Analysis, Risk Mapping, zonation, and Microzonation,
9	9th (23 Mar - 28 Mar)		Prevention and Mitigation of Disasters, Early Warning System; Preparedness, Capacity Development. Awareness During Disaster – Evacuation – Disaster Communication – Search and Rescue –Emergency
10	10th (30 Mar - 04 Apr)		Operation Centre – Incident Command System – Relief and Rehabilitation Post-disaster – Damage and Needs Assessment, Restoration of Critical Infrastructure –Early Recovery – Reconstruction and Redevelopment; IDNDR, Yokohama Strategy, Hyogo Framework of Action
11	11th (06 Apr - 10 Apr)		2nd Class Test
12	12th (13 Apr - 18 Apr)	Unit– IV: Disaster Management in India	Disaster Profile of India – Mega Disasters of India and Lessons Learnt. Disaster Management Act 2005 – Institutional and Financial Mechanism
13	13th (20 Apr - 25 Apr)		National Policy on Disaster Management, National Guidelines and Plans on Disaster Management.
14	14th (27 Apr - 02 May)		Role of Government (local, state, and national), Non-Government and Inter Governmental Agencies..

15	15th (04 May -08 May)		House Test
16	16th (11 May - 16 May)	Unit- V: Applications of Science and Technology for Disaster Management	Geo-informatics in Disaster Management (RS, GIS, GPS, and RS). Disaster Communication System (Early Warning and Its Dissemination).
17	17th (18 May - 23 May)		Land Use Planning and Development Regulations, Disaster Safe Designs and Constructions,
18	18th (25 May - 26 May)		Structural and Non-Structural Mitigation of Disasters S&T Institutions for Disaster Management in India

Teacher signature

Sumedha Sharma



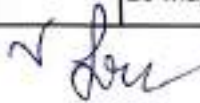
H.O.D Civil Engg
Er Adit Rana

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****Subject:-Indian Constitution****Semester: 6th Sem****Name of Subject Teacher : Yudhvir Singh****Session: Jan- May 2026****Designation :Lecturer Chemistry**

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	27 Jan - 31 Jan	Introduction to Constitution	History of making of the Indian Constitution. Meaning and importance of the Constitution
2	02 Feb - 07 Feb	Introduction to Constitution	Sallent features and Preamble of Indian Constitut or.
3	09 Feb - 13 Feb	Introduction to Constitution	Fundamental rights- meaning and limitations.
4	16 Feb - 21 Feb	Introduction to Constitution	Directive principles of state policy and Fundamental duties -their enforcement
5	23 Feb - 28 Feb	Union Government:	Structure of Union Government.
6	02 Mar - 07 Mar	Union Government:	Union Executive- President, Vice-president, Prime Minister, Council of Ministers
7	09 Mar - 13 Mar		Class Test -I,Revision
8	16 Mar - 20 Mar	Union Government:	Union Legislature- Parliament and Parliamentary proceedings.
9	23 Mar - 28 Mar	Union Government:	Union Judiciary-Supreme Court of India – composition and powers and function
10	30 Mar - 04 Apr	State and Local Governments	Structure of State Government.
11	06 Apr - 10 Apr		Class Test -II ,Revision
12	13 Apr - 18 Apr	State and Local Governments	State Executive- Governor, Chief Minister, Council of Ministers
13	20 Apr - 25 Apr	State and Local Governments	State Legislature-State Legislative Assembly and State Legislative Council. State Judiciary-High court.
14	27 Apr - 02 May	State and Local Governments	Local Government-Panchayat raj system with special reference to 73rd and Urban Local Self Govt. with special reference to 74th Amendment.
15	04 May -08 May		House Test -I



16	11 May - 16 May	Election provisions, Emergency provisions, Amendment of the constitution	Election Commission of India-composition, powers and functions and electoral process.
17	18 May - 23 May	Election provisions, Emergency provisions, Amendment of the constitution	Types of emergency-grounds, procedure, duration and effects. □ Amendment of the constitution-meaning, procedure and limitations.
18	25 May - 26 May		Revision Work


 Teacher signature
 Yudhvir Singh


 H.O.D AS&H
 L.R. Sharma

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: 6th Sem

Session: Jan- May 2026


Subject: Public Health 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)		Introduction to all Practicals and Equipments.
2	2nd (02 Feb - 07 Feb)		Determine pH value of given sample of water
3	3rd (09 Feb - 13 Feb)		Determine the turbidity of the given sample of water
4	4th (16 Feb - 21 Feb)		Determine residual chlorine in a given sample of water
5	5th (23 Feb - 28 Feb)		Determine suspended, dissolved solids and total solids of given sample of water.
6	6th (02 Mar - 07 Mar)		Determine the dissolved oxygen in a sample of water
7	7th (09 Mar - 13 Mar)		1st Class Test Undertake a field visit to water treatment
8	8th (16 Mar - 20 Mar)		Prepare a report of field visit.
9	9th (23 Mar - 28 Mar)		Determine the optimum dose of coagulant in a given raw water sample by jar test.
10	10th (30 Mar - 04 Apr)		Draw sketches of various valves used in water supply pipeline
11	11th (06 Apr - 10 Apr)		2nd Class Test
12	12th (13 Apr - 18 Apr)		Draw sketches of various valves used in water supply pipeline
13	13th (20 Apr - 25 Apr)		Draw a sketch of one pipe and two pipe system of plumbing
14	14th (27 Apr - 02 May)		Draw a sketch of one pipe and two pipe system of plumbing
15	15th (04 May -08 May)		House Test
16	16th (11 May - 16 May)		Prepare a report of a field visit to sewage treatment plant
17	17th (18 May - 23 May)		Prepare a report of a field visit to sewage treatment plant
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: 6th Sem

Session: Jan- May 2026

Subject: Design of Steel Structures Lab (CEPC 308)

Name of the teacher : Er Lokesh Sharma & Er Parveen Kumar

Designation : Sr. Lecturer & Lecturer Civil Engg

Sr No	Week / Month	Name of the chapter	Topics to be covered
1	1st (27 Jan - 31 Jan)	Drawing 1	Draw any five commonly used rolled steel sections and five built up sections.
2	2nd (02 Feb - 07 Feb)	Drawing 2	Summarize the provisions of IS 800 required for the design of tension member in report form.
3	3rd (09 Feb - 13 Feb)		Revision
4	4th (16 Feb - 21 Feb)	Drawing 3	Compile relevant clauses from IS 800 required for the design of a compression member and submit it in report form.
5	5th (23 Feb - 28 Feb)		Revision
6	6th (02 Mar - 07 Mar)	Drawing 4	Details of splicing for steel columns of (i) Same width (ii) Different widths
7	7th (09 Mar - 13 Mar)		1st Class Test, Revision
8	8th (16 Mar - 20 Mar)	Drawing 5	Beam to beam connections (i) Seated Connections (ii) Framed Connections
9	9th (23 Mar - 28 Mar)	Drawing 6	Beam to column connections (i) Seated Connections (ii) Framed Connections
10	10th (30 Mar - 04 Apr)	Drawing 7	Column Bases (i) Slab base (ii) Gusseted base
11	11th (06 Apr - 10 Apr)		2nd Class Test, Revision
12	12th (13 Apr - 18 Apr)	Drawing 8	Steel roof truss with details of joints (i) Heel Joint (ii) Ridge Joint
13	13th (20 Apr - 25 Apr)		Revision
14	14th (27 Apr - 02 May)	Drawing 9	Draw sketches for battening of given built up columns.
15	15th (04 May - 08 May)		House Test
16	16th (11 May - 16 May)	Drawing 10	Draw sketches for single & double lacing of given built up columns.
17	17th (18 May - 23 May)		Revision
18	18th (25 May - 29 May)		Revision

Teacher signature

Er Lokesh Sharma (G1)

Er Parveen Kumar (G2)


H.O.D Civil Engg
Er Adit Rana