

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

Lesson Plan for Public Health Engineering (Semester-6th) Session: (Feb-June 2025)

S.No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	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	February	Week-1	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.	
		Week-2	Quality of water: Need for analysis of water, Characteristics of water- Physical, Chemical and Biological tests.	
		Week-3	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.	
		Week-4	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.	
		Week-5	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	
3	March	Week-1	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	
		Week-2	Distribution of water: Methods of distribution of water- Gravity, pumping, and combined system, Service reservoirs - functions and types	
		Week-3	Layouts of distribution of Water-Dead end system, grid iron system, circular system, radial system; their suitability, advantages, and disadvantages.	Class Test - I
		Week-4	Building Sanitation: Necessity of sanitation, Necessity to treat domestic sewage, Definitions - Sewage, Sullage, types of sewage.	
		Week-5	Definition of the terms related to Building Sanitation- Water pipe, Rainwater pipe, Soil pipe, Sullage pipe, Vent pipe.	
4	April	Week-1	Systems of Sewerage and Sewer Appurtenances: Types of Sewers, Systems of sewerage, self- cleansing velocity and non-scouring velocity,	
		Week-2	Laying, Testing and maintenance of sewers, Manholes and Drop Manhole-component parts, location, spacing, construction details, Sewer Inlets, Street Inlets.	
		Week-3	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	Class Test - II
		Week-4	Objects of sewage treatment and flow diagram of conventional sewage treatment plant.	
		Week-5	Treatment of Sewage: Screening, Types of screens, Grit removal, Skimming,	
5	May	Week-1	Sedimentation of sewage, Aerobic and anaerobic process, Sludge digestion, trickling filters,	
		Week-2	HOUSE TEST	
		Week-3	Activated sludge process, Disposal of sewage,	
		Week-4	Oxidation Pond, Oxidation ditch. Septic tank.	
		Week-5	Revision	

Signature of Teacher
(Er Chetan Mandela)

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

Department of Civil Engineering
 Dr. B. R. Ambedkar Govt. Polytechnic Ambota, District Una (H.P.)
 Lesson Plan for Design Of Steel Structure (Semester-6th) Session: (Feb - May, 2025)

S. No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	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.	
2	February	Week-1	Types of Bolts (Theory only), Forces in Bolts, Types of Bolted joints with Sketches (Butt Joint and Lap Joint), Terminology & IS 800 Provisions for Gauge, Pitch, End & Edge Distance, Patterns of Bolting (Chain, Diamond, Staggered).	
		Week-2	Gross and net cross-sectional area of bolted members. Design of bolted connections & Efficiency of a joint. (Numerical problems on Ordinary Bolts only).	
		Week-3	Gross and net cross-sectional area of bolted members. Design of bolted connections & Efficiency of a joint. (Numerical problems on Ordinary Bolts only).	
		Week-4	Introduction, advantages, and disadvantages of welded joint, defects in welds, Types of welds and their symbols. Terminology & IS 800 provisions for Size, Throat Thickness, End Returns etc. Longitudinal, Transverse & Intermittent welds.	
3	March	Week-1	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).	
		Week-2	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).	
		Week-3	Introduction to tension members, Types of section used in axial tension., Gross and net cross-sectional area of tension members (Numerical problems on Plate & Angles Sections only).	Class
		Week-4	Analysis & Design of tension member with welded and bolted connections (Plate, 40 Single & Double Angle Sections only). Introduction to Lug Angle and Tension splice.	
		Week-5	Analysis & Design of tension member with welded and bolted connections (Plate, 40 Single & Double Angle Sections only). Introduction to Lug Angle and Tension splice.	
4	April	Week-1	Types of sections used, Effective length, Radius of gyration, slenderness ratio and its limit, Buckling Class, Effective length	
		Week-2	Analysis and Design of axially loaded welded and bolted connections using tables and Equations of IS 800 (I-Section, Double Angle Section and Single angle section)	
		Week-3	Analysis and Design of axially loaded welded and bolted connections using tables and Equations of IS 800 (I-Section, Double Angle Section and Single angle section)	Class
		Week-4	Introduction, Different steel sections used, Simple and built-up sections,	
		Week-5	Plastic Hinge, Plastic section Modulus, Class of Section	
5	May	Week-1	Design of simple I section -Check for shear only (Low Shear & High Shear).	
		Week-2	HOUSE TEST	
		Week-3	Design of simple I section -Check for shear only (Low Shear & High Shear).	
		Week-4	REVISION	
		Week-5	REVISION	

Monthly Review By HOD

February

March

LESSON PLAN

Program Name	DIPLOMA IN CIVIL ENGG. ;EU
course/Subject Name	Technical Communication
Course/Subject Code	ASOE302
course/Subject Coordinator Name	Renu Patial
Course Category	Open Elective

Evaluation scheme

S.N o.	subject Name	Study Scheme (Hrs./Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Technical Communication	Th-3; DCS-1	40	--	60	--
Reference books:			1. Technical Communication- Principles and Practice by Meenakshi Raman & Sangeeta Sharma			
			2. https://www.skillsyouneed.com/quiz/343479			
			3. https://indeed.com/career-advice/career-development/project-management-report			
			4. https://whatfix.com/blog/technical-writing-examples/			
			5. https://virtualspeech.com/blog/technical-presentation			
			6. Csikszentmihalyi. Flow: The psychology of			

Canfield, Jack et al. Chicken Soup for the Unsinkable Soul, Backlist LLC, 2012

Course Outcomes: At the end of the course students will be able to:

CO1	Adapt, accept and adjust to the physical and emotional changes in one's own self and influence others positively.
CO2	Classify the correct usage of English Grammar in writing and speaking.
CO3	Develop the various written communication strategies

CO4	Demonstrate the use of verbal and non-verbal Communication in academic and non-academic platforms.
CO5	Demonstrate appropriate communication behaviour to enhance self-representation.

Teaching Plan:

Lecture No.	Name of topic	Proposed Date	Actual date	Remarks
1	Unit- 1 Fundamentals of Technical Communication Introduction of the syllabus Language as tool of communication	27.01.2025		
2	Feature of communication	28.01.2025		
3	Distinction between General and Technical Communication	29.10.2025		
4	Channels of communication at workplace: Downward, Upward and lateral or horizontal	30.01.2025		
5	Diagonal, Grapevine, consensus	03.02.2025		

6	Barriers to communication	04.02.2025		
7	Overcoming the barriers	05.02.2025		
8	Unit-2 Technical writing Types of Technical Writing	06.02.2025		

9	Drafting Skills: Agenda and minutes of meeting	10.02.2025 11.02.2025		
10	Official Correspondence	13.02.2025		
11	Business Correspondence	17.02.2025		
12	Different formats of Report writing	18.02.2025 19.02.2025		
13	Basics of Grammar: Sporting errors In Noun , Pronoun, Verb	20.02.2025 24.02.2025		
14	Adverb, Adjective, Preposition	25.02.2025 27.02.2025		
15	Preposition ,Conjunction,	03.03.2025 04.03.2025		
16	Article, Modals	05.03.2025 06.03.2025		
17	Tenses, Punctuation	6,7,11.03.2025		
18	Resume writing	12.03.2025		
19	Covering letters	13.03.2025		
20	Unit-3 Presentation Skills Concept and significance of Presentation skills	17.03.2025 18.03.2025		
21	Concept and significance of Presentation skills	19.03.2025 20.03.2025		

42	Business Etiquettes	01.05.2025	
43	Téléphone Étiquettes	05.05.2025	
44	Dressing Etiquettes	06.05.2025	
45	Workplace Étiquettes	07.05.2025	
46	Definition Of Voice Modulation	08.05.2025	
47	Elements of voice modulation	13.05.2025	
48	Quality, Pitch, Rhythm, Volume	14.05.2025	
49	Volume ,Pace , Intonation,	15.05.2025	
50	Articulation, & Stress	19.05.2025	

51	Accent	20.05.2025	
52	Tips for better voice modulation	21.05.2025	
53	Tips for better voice modulation	22.05.2025	
54	Revision	26.05.2025	
55	Revision	27.05.2025	
56	Revision	28.05.2025	

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

Department of Civil Engineering

LESSON PLAN

Program Name	Diploma in Architecture Assistantship
Course/Subject Name	Sustainable Development
Course/Semester	N-2022 / 6 th
Course/Subject Co-ordinator Name	Amandeep Singh

Evaluation Scheme

Sr. No.	Subject Name	Study Scheme			Evaluation Scheme						Total Marks (Int. & Ext.)
		L	DCS	Total	Internal Assessment			External Assessment			
1	Sustainable Development	3	1	4 Hrs./week	Th.	Pr.	T	Th.	Hrs.	T	100
					40	-	40	60	3	100	100
Reference Books		Sustainable Building, Design Manual –Vol-1,2. – TERI Press. 2. https://www.un.org/sustainabledevelopment/sustainable-development-goals/									

Teaching Plan

Unit No.	Name of Topic	Proposed Week	Actual Date	Remarks
1	Introduction to Sustainable Development: Glimpse into History and Current practices - Broad introduction to SD - its importance, need, impact and implications;	1 st Week (27/01/2025-01/02/2025)		
1	definition coined; evolution of SD perspectives (MDGs AND SDGs) over the years; recent debates;	2 nd Week (03/02/2025-10/02/2025)		
	1987 Brundtland Commission and outcome; later UN summits (Rio summit, etc.) and outcome.	3 rd Week (11/02/2025-18/02/2025)		
2	Ecosystem & Sustainability: Fundamentals of ecology - types of ecosystems & interrelationships	4 th Week (19/02/2025-25/02/2025)		
2	Factors influencing sustainability of ecosystems, ecosystem restoration - developmental needs. Introduction to sustainability & its factors, requirements for	5 th Week (27/02/2025-05/03/2025)		

	sustainability:		
2	food security and agriculture, renewable resources - water and energy, non-renewable resources, factors and trade-offs,	6 th Week (06/03/2025-13/03/2025)	
2	Sustainability conflicts, a conceptual framework for linking sustainability and sustainable development.	7 th Week (15/03/2025-21/03/2025)	
3	Gauging Sustainable Development - Sustainability and development indicators and SDGs, UN's outlook of sustainable development and efforts,	8 th Week (22/03/2025-28/03/2025)	
3	UN SDGs - structure, governance and partnerships;	9 th Week (29/03/2025-05/04/2025)	
3	communities / society: ensuring resilience and primary needs in society; biosphere: development within planetary boundaries	10 th Week (07/04/2025-16/04/2025)	
3	Strengthening institutions for sustainability; shaping a sustainable economy.	11 th Week (17/04/2025-24/04/2025)	
4	Case Studies & Projects on Rural Sustainable Development (Indian village perspectives) - Village resources (broad perspectives); current challenges and thematic areas;	12 th Week (25/04/2025-02/05/2025)	
4	village social hierarchy; village economy; needs of present and future generation;	13 th Week (03/05/2025-09/05/2025)	
4	conflicts - sustainability and rural culture & tradition;	14 th Week (13/05/2025-19/05/2025)	
4	achieving sustainable development goals - bridging conflicts and way forward	15 th Week (20/05/2025-26/05/2025)	
	Revision	14 th Week (13/05/2024-18/05/2024)	
	Revision	15 th Week (20/05/2024-28/05/2024)	

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Week	Actual Date	Remarks
A-1	Unit 1- Introduction to Sustainable Development: Glimpse into History and Current practices, Unit 2 - Ecosystem & Sustainability:	6 th Week		

A-2	Unit – 3 Gauging Sustainable Development Unit – 4 Case Studies & Projects on Rural Sustainable Development (Indian village perspectives)	13 th Week		
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House Test/Class Test

Name of Test	Contents of Syllabus Covered	Proposed Week	Actual Date	Remarks
Class Test 1	Unit 1- Introduction to Sustainable Development: Glimpse into History and Current practices, Unit 2 - Ecosystem & Sustainability:	3 rd Week of March 2025		
Class Test 2	Unit – 3 Gauging Sustainable Development Unit – 4 Case Studies & Projects on Rural Sustainable Development (Indian village perspectives)	3 rd Week of April 2025		
House Test	Unit 1- Introduction to Sustainable Development: Glimpse into History and Current practices, Unit 2 - Ecosystem & Sustainability Unit – 3 Gauging Sustainable Development Unit – 4 Case Studies & Projects on Rural Sustainable Development (Indian village perspectives)	2 nd Week of May 2025		


Signature of HOD

Signature of Teacher

INDIAN CONSTITUTION
Lesson Plan for ~~Public Health Engineering~~ (Semester-6th) Session: (Feb-June 2025)

MONTH	WEEK	CONTENTS	REMARKS
January	Week-5	History of making of the Indian Constitution.	
February	Week-1	Meaning and importance of the Constitution. Salient features and Preamble of Indian Constitution.	
	Week-2	Fundamental rights- meaning and limitations. Directive principles of state policy and Fundamental duties -their enforcement and their relevance	
	Week-3	Structure of Union Government.	
	Week-4	Union Executive- President, Vice-president, Prime Minister, Council of Ministers. □ Union Legislature- Parliament and Parliamentary proceedings	
	Week-5	Union Judiciary-Supreme Court of India – composition and powers and function.	
March	Week-1	Structure of State Government. □ . □ . □ State Judiciary-High court. □	
	Week-2	State Executive- Governor, Chief Minister, Council of Ministers	
	Week-3	State Legislature-State Legislative Assembly and State Legislative Council	Class Test -I
	Week-4	Local Government-Panchayat raj system with special reference to 73rd and Urban Local Self Govt. with special reference to 74th Amendment.	
	Week-5	Election Commission of India-composition, powers and functions and electoral process. □ Types of emergency-grounds, procedure, duration and effects. □ Amendment of the constitution- meaning, procedure and limitations.	
4 April	Week-1	Election Commission of India-composition, powers and functions and electoral process. □ □	
	Week-2	Election Commission of India-composition, powers and functions and electoral process.	Class Test -II
	Week-3	types of emergency-grounds, procedure, duration and effects.	
	Week-4	types of emergency-grounds, procedure, duration and effects.	
	Week-5	Amendment of the constitution- meaning	
5 May	Week-1	Amendment of the constitution- meaning	
	Week-2	HOUSE TEST	
	Week-3	Amendment procedure and limitations.	
	Week-4	Amendment procedure and limitations.	
	Week-5	Revision	


Signature of Teacher


Signature of H.O.D
(Chetan mandela)

Department of Civil Engineering

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Lesson Plan for PHED LAB lab G-i & G-ii. (Semester-4th) Session: (Feb-June 2025)

S.No.	MONTH	WEEK	CONTENTS	REMARKS
1	January	Week-5	Determine pH value of given sample of water.	
2	February	Week-1	checking of files	
		Week-2	Determine the turbidity of the given sample of water.	
		Week-3	checking of files	
		Week-4	Determine residual chlorine in a given sample of water	
		Week-5	checking of files	
3	March	Week-1	Determine suspended, dissolved solids and total solids of given sample of water.	
		Week-2	checking of files	
		Week-3	Determine the dissolved oxygen in a sample of water	Class Test -I
		Week-4	checking of files	
		Week-5	Undertake a field visit to water treatment plant and prepare a report	
4	April	Week-1	checking of files	
		Week-2	Determine the optimum dose of coagulant in a given raw water sample by jar test	Class Test -II
		Week-3	checking of files	
		Week-4	Draw sketches of various valves used in water supply pipeline	
		Week-5	checking of files	
5	May	Week-1	Draw a sketch of one pipe and two pipe system of plumbing	
		Week-2	checking of files	
		Week-3	Prepare a report of a field visit to sewage treatment plant	
		Week-4	checking of files	
		Week-5		

Signature of Teacher

(Er Chetan Mandela)

Signature of H.O.D

(Er Chetan Mandela)

Lesson Plan for Design Of Steel Structure Lab- (Semester-6th) Session: (Feb - May, 2025)

MONTH	WEEK	CONTENTS	REMARKS
January	Week-5	Draw any five commonly used rolled steel sections and five built up sections.	
February	Week-1	Details of splicing for steel columns of Same width	
	Week-2	Details of splicing for steel columns of Different width. Checking of Sheets	
	Week-3	Details of splicing for steel columns of Different width	
	Week-4	Beam to beam connections Seated Connections. Checking of Sheets	
March	Week-1	Beam to beam connections Seated Connections	
	Week-2	Beam to beam connections Framed Connections. Checking of Sheets	
	Week-3	Beam to beam connections Framed Connections	Class Test -I
	Week-4	Beam to Column connections Seated Connections. Checking of Sheets	
	Week-5	Beam to Column connections Seated Connections	
April	Week-1	Beam to Column connections Framed Connections. Checking of Sheets	
	Week-2	Beam to Column connections Framed Connections	Class Test -II
	Week-3	Column Base: Slab Base. Checking of Sheets	
	Week-4	Column Base: Slab Base	
	Week-5	Column Base: Gusseted Base. Checking of Sheets	
May	Week-1	Column Base: Gusseted Base. Checking of Sheets	
	Week-2	HOUSE TEST	
	Week-3	Steel roof truss with details of joints Heel Joint.	
	Week-4	Steel roof truss with details of joints Ridge Joint. Checking of Sheets	
	Week-5	Revision	

Monthly Review By HOD

February	
March	
April	
May	

P. Singh
Teacher

Signature of H.O.
(Er Chetan Mand)