Govt. Polytechnic Talwar
(Deptt. Of Applied Sciences)
Lesson Plan
Session:August-2025-December-2026

Name of teacher: Sangeeta Sharma	Designation: Lecturer Mathematics
Name of Subject: Applied Mathematics-1	Class: Civil Engg.

Sr. No	Month	Week	Date	Topic	Contents to be taught	Remarks
1	Aug.	1st	,2	Trigonometry	Orientation	
2					Orientation Concept of angles,measurement of angles in degrees, grades and radians and their conversions,	
3		2nd	4,5,7,8			
4						
5						
6		3rd	11,12, 14		T-Ratios of Allied angles (without proof),their applications (without proof).	
7						
8						
9						
10		4th	18,19, 21,22, 23		Sum, difference formulae and their applications (without proof	
11						
12						
13						
14		5th	25,26, 28,29,3 0		Product formulae (Transformation of product to sum, difference and vice versa)	
15						
16						
17						
18						
19	Sept.	1st	1,2,4,5, 6		T- Ratios of multiple angles,sub-multiple angles	
20						
21						
22						
23						
24		2nd	8,9,11, 12		Definition of function ; Concept of limits	Class Test 1
25						
26						
27						
28						
29		3rd	15,16, 18,19, 20		Standard limits	
30						
31						
32						
33						
34		4th	22,23, 25,26,2 7		Differentiatin by definition	
35						
36						
37						
38						
39		5th	29,30	Differential Calculus	Differentiatin of sum , product	
40						
41					Differentiatin of and quotient function	

		1st	2,3,4			
42						
43						
44		2nd	6,9,10, 11		Differentiation of function of function	
45						
46						
47						
48						
49		3rd	13,14, 16,17,1 8		Differentiation of trigonometric and inverse trigonometric function	Class Test 2
50	Oct.					
51						
52						
53		4th	21,22,2 4,25		Logarithmic differentiation	
54						
55						
56						
57						
58		5th	27,28, 30,31		Complex Numbers : Definition,real and imaginary parts of a complex number	
59						
60						
61						
62		1st	1,3,4,6, 7		polar and cartesian representation of a complex number and its conversion from one form to other	
63						
64						
65						
66						
67		2nd	10,11, 13,14, 15		conjugate, modulus and amplitude ;addition, subtraction,multiplication and division f a complex number	House Test
68					De-moivre's theorem and its applications	
69	Nov.					
70						
71						
72		3rd	17,18, 20,21, 22	Algebra	Partial fractions : Definition of polynomial fractionproper and improper fraction. Resolve proper fraction into partial fraction with	
73						
74					denominator containing non-repeated	
75		4th	24,25, 27,28,2		Permutation and Combination	
76						
80					Binomial theorem for positive integral index (expansion and general term); binomial theorem for any index (without proof) first and second approximationwith applications to	
81						
82		1st	1,2,4,5, 6			
83	Dec.					
84						
85		2nd	8		Formula Revision	

SignatureOf Teacher

HOD
Applied Sciences

Applied Sciences Department

Subject plan for the Session 2025-2026

Name of the subject :- **Applied Physics-I** Branch :- **Civil Engg.** Sem. :- 1st

Sr. No	Contents to be taught	Date	Remarks
	Unit-1 : Physical World,Units and Measurements		
1	Physical quantities Units - fundamental and derived units, systems of units (FPS, CGS and SI units)	4 Aug.	
2	Dimensions and dimensional formulae of physical quantities	6,8 Aug.	
3	DCS	11 Aug.	
4	Principle of homogeneity of dimensions	13,18,20,22 Aug.	
5	Dimensional equations and their applications, conversion from one system of units to other,		
6	checking of dimensional equations and derivation of simple equations.		
7	DCS	23 Aug.	
8	Limitations of dimensional analysis	25,27 Aug.	
9	Error in measurement, absolute error, relative error, rules for representing significant figures in calculation.		
	Unit-2 : Force and Motion		
10	Scalar and vector quantities – examples, representation of vector, types of vectors	29 Aug.	
11	DCS	30 Aug.	
12	Addition and Subtraction of Vectors, Triangle and Parallelogram law (Statement only), Scalar and Vector Product.	1,3 sept.	
13	Resolution of Vectors and its application to lawn roller.	5 Sept.	
14	DCS and Revision for CT1	6 Sept.	
15	Impulse and its Applications	8,10 Sept.	
16	Circular motion, definition of angular displacement, angular velocity, angular acceleration, frequency, time period.	12 Sept.	
17	Relation between linear and angular velocity, linear acceleration and angular acceleration (related numerical)	15,17 Sept.	
18	Expression and Applications of Centripetal and centrifugal forces with examples such as banking of roads and bending of cyclist	19 Sept.	
19	DCS and Revision		
	Unit-3 : Work, Power and Energy	20 Sept.	
20	Work: and its units, examples of zero work, positive work and negative work	22,24 Sept.	
21	Friction: modern concept, types, laws of limiting friction, Coefficient of friction and its Engineering Applications	26 Sept.	
22	DCS	27,29 Sept.	
23	Work done in moving an object on horizontal and inclined plane for rough and plane surfaces with its applications		
24	Energy and its units: Kinetic energy and gravitational potential energy with examples and their derivation	1 Oct.	
25	Principle of conservation of mechanical energy for freely falling bodies, examples of transformation of energy.	3 Oct.	
26	DCS	4 Oct.	
27	Power and its units, calculation of power in numerical problems		

	Unit-4 : Rotational Motion		
28	Concept of translatory and rotatory motions with examples , Definition of torque and angular momentum and their examples	6 Oct.	
29	DCS	8 Oct.	
30	Conservation of angular momentum (quantitative) and its examples	10 Oct.	
31	Moment of inertia and its physical significance, radius of gyration for rigid body,	13 Oct.	
32	DCS and Revision for CT2	15 Oct.	
33	Theorems of parallel and perpendicular axes (statements only), Moment of inertia of rod, disc and ring (Formulae only no derivation).	17 Oct.	
	Unit-5 : Properties of Matter		
34	Elasticity: definition of stress and strain, different types of modulii of elasticity, Hooke's law, significance of stress strain curve	18,27 Oct.	
35	DCS and Revision	29 Oct.	
36	Pressure: definition, its units, atmospheric pressure, gauge pressure, absolute pressure, Fortin's Barometer and its applications	31Oct.	
37	Surface tension: concept, its units, angle of contact, Ascent Formula (No derivation),	1, 3 Nov.	
38	DCS and Revision for HT	7 Nov.	
39	applications of surface tension, effect of temperature and impurity on surface tension	19 Nov.	
	Unit-6 : Heat and Thermometry		
40	Difference between heat and temperature	19 Nov.	
41	Modes of transfer of heat (Conduction, convection and radiation with examples)	21 Nov.	
42	DCS	22 Nov.	
43	Different scales of temperature and their relationship	24 Nov.	
44	Types of Thermometer (Mercury Thermometer, Bimetallic Thermometer, Platinum resistance Thermometer, Pyrometer)	26 Nov.	
45	Expansion of solids, liquids and gases, coefficient of linear, surface and cubical expansions and relation amongst them		
46	Concept of Co-efficient of thermal conductivity		

Signature of Teacher(Nemjel Choudhary)

Signature of H.O.D

GOVT. POLYTECHNIC TALWAR

PLANNED THEORY SYLLABUS COVERAGE

Applied Sciences & Humanities

Applied Chemistry - I

1st Sem. Automobile & Civil Engg. Duration: - 1st Aug. 2025 to 26th Nov. 2025

Total Periods: Theory: 56 Practical: 28

Week	Period No	Topic	Detail of Contents	Instruction Reference	Additional study recommended	Remarks
1	7	Atomic Structure	Fundamental particles of atoms - Electron, proton, neutron (Definitions) 1.2 Atomic Structure- Bohr's theory, successes and limitations(expression of energy and radius to be omitted), and Hydrogen spectrum explanation based on Bohr's model of atom. 1.3 Heisenberg uncertainty principle, Quantum numbers - orbital concept, Shapes of s, p orbitals, difference between orbit and orbital 1.4 Pauli's exclusion principle, Hund's rule of maximum multiplicity Aufbau rule, electronic configuration (Z=1 to 30)	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
2	7	Chemical Bonding And Solutions	2.1Concept of chemical bonding – cause of chemical bonding, types of bonds- ionic bonding (NaCl example) 2.2 Lewis concept of covalent bond (H2, F2, HF) Electronegativity, Difference between sigma and pie bond 2.3 Electron sea model of metallic bond 2.4 Idea of solute, solvent and solution 2.5 Methods to express the concentration of solution- molarity (M – mole per liter), molality, mass percentage (Numerical excluded)	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
3	10	Electrochemistry And Corrosion	3.1 Electronic concept of oxidation, reduction and redox reactions Definition of terms- electrolytes, non-electrolytes with suitable examples, 3.2 Faradays laws of electrolysis and simple numerical problems 3.3 Industrial application of Electrolysis - • Electrometallurgy • Electroplating • Electrolytic refining, 3.4 Application of redox reactions in electrochemical cells - • Primary cells – dry cell, • Secondary cell - commercially used lead acid storage battery 3.5 Introduction to Corrosion of metals – definition, types of corrosion (electrochemical) 3.6 liberation and O2 absorption mechanism of electrochemical corrosion 3.6 Internal corrosion preventive measures – Purification, alloying and heat treatment and External corrosion preventive measures- metal (anodic, cathodic) coatings	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
4	7	Engineering Materials	4.1Natural occurrence of metals – minerals, ores of iron, aluminium and copper, gangue (matrix), flux, slag, metallurgy – brief account of general principles of metallurgy(a) Crushing and grinding (b) Concentration of ore (Levigation, Froth Flotation, Magnetic separation) (c) Extraction(Roasting and calcinations & smelting) (d) Refining (Electro refining, zone refining) 4.2 Extraction of - iron from haematite ore using blast furnace along with reactions. 4.3 Alloys – definition, purposes of alloying, ferrous alloys (invar steel) and non-ferrous(Simple Brass & Bronze, Nichrome, Duralumin, Magnelium) with suitable examples, properties and applications.	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
5	8	Water	5.1Classification of soft and hard water based on soap test, salts causing water hardness, units of hardness(mg/L and ppm) and simple numerical on water hardness Cause of poor lathering of soap in hard water. 5.2 Problems caused by the use of hard water in boiler (scale and sludge, foaming and priming, corrosion) 5.3 (i) water softening techniques- zeolite process ii). Municipal water treatment(in brief only) – sedimentation, coagulation, filtration, sterilization 5.4 Properties of water used for human consumption for drinking and cooking purposes from any water sources and Indian standard specification of drinking water.	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
6	7	Fuels	6.1 Definition of fuel and combustion of fuel, classification of fuels 6.2 calorific values (HCV and LCV), calculation of HCV and LCV using Dulong's formula. Characteristics of good fuel 6.3 Petrol and diesel - fuel rating (octane and cetane numbers) 6.4 Chemical composition, calorific values and applications of LPG, CNG, water gas, producer gas and biogas	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
7	7	Lubrication	7.1Function and characteristic properties of good lubricant. 7.2 classification with examples 7.3 Lubrication mechanism – hydrodynamic and boundary lubrication 7.4 Physical properties (viscosity and viscosity index, oiliness, flash and fire point; cloud and pour point only) and chemical properties (coke number, total acid number, saponification value) of lubricants.	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	
8	5	Polymers	8.1 Monomer, homo and co polymers , degree of polymerization 8.2 simple reactions involved in preparation and their application of thermoplastics and thermosetting plastics (using Polythene, PVC, PS, PTFE, nylon-6,6 and Bakelite only) 8.3 Vulcanization of rubber and properties of vulcanised rubber.	Applied Chemistry Eagle Prakashan	NCERT Text book of Chemistry, Engineering Chemistry Cambridge universityBy Agarwal & Shikha, Understanding Chemistry by CNR Rao	

Signature of Teacher
Nidhi Katoch
Lecturer Chemistry

HOD
Applied Science and Humanities

LESSON PLAN

Name of Teacher :- Meenakshi Saini **Subject:** Communication Skills in English **Class:** 1st Semester Civil Engg.

S. No.	Month	Week	Date	Name of Chapter	Contents to be taught	Remarks
1	August	1st Week	1,2	**Orientation**		
2		2nd week	4			
			8	**Unit-1 Communication: Theory and Practice**	1. Basics of communication: Introduction, Meaning and definition, Process of Communication etc.	
3		3rd week	11		1.2. Types of communication: formal and informal, verbal, non-verbal and written	
4		4th week	18,22,23		2. Barriers to effective communication 3. 7Cs for effective communication (considerate, concrete, concise, clear, complete, correct, courteous). 4. Art of Effective communication: A. Choosing words B. Voice C. Modulation D. Clarity E. Time F. Simplification of words	
5		5th week	25		4. Art of Effective communication: A. Choosing words B. Voice C. Modulation D. Clarity E. Time F. Simplification of words 5. Technical Communication.	
			29	**Unit-2 Soft Skills for Professional Excellence**	1. Introduction: Soft Skills and Hard Skills.	
6	September	1st week	1,5,6		2. Importance of soft skills 3. Life skills: Self-awareness and Self-analysis, adaptability,	
7		2nd week	8		Life skills: Resilience, emotional intelligence and empathy etc. 4. Applying soft skills across cultures.	
			12	**Class Test-1**		

8	September	3rd week	15,19, 20	Unit-3: Reading Comprehension: Comprehension, vocabulary enhancement and grammar exercises based on reading of the following texts	Section-1 Short Stories 1. "The Gift of the Magi" by O. Henry. 2. "Uncle Podger Hangs a Picture" Jerome K. Jerome.	
9		4th week	22, 26,27		Section-1 Short Stories 2. "Uncle Podger Hangs a Picture" Jerome K. Jerome. Section-2 Poetry 1. "Night of the Scorpion" by Nissim Ezekiel. 2. "Stopping by Woods on a Snowy Evening" by Robert Frost.	
10		5th week	29		3. "Where the Mind is Without Fear" by Rabindranath Tagore	
11	October	1st week	3,4	Unit-4 Professional Writing	1. The art of précis writing.	
12		2nd week	6		2. Letters: business	
13		3rd week	13	Class Test-2		
			17, 18	Diwali Vacation		
14		4th week	24, 25	Unit-4 Professional Writing	2. Letters: personal. 3. Drafting e-mail	
15		5th week	27,31		3. Drafting Notices, minutes of a meeting etc	
16	November	1st week	1	Unit-5 Vocabulary and Grammar	1. Glossary of administrative terms (English and Hindi).	
17		2nd week	3,7	House Test		
18		3rd week	10, 14, 15	Unit-5 Vocabulary and Grammar	2. One-word substitution, Idioms and phrases etc., 3. Parts of Speech	
19		4th week	17, 21, 22		3. Active and passive voice, Tenses, etc	
20		5th Week	24		3. Punctuation	

Signature of HOD

Signature of Teacher

GOVT. POLYTECHNIC TALWAR, DISTT. KANGRA, H.P.

PLANNED THEORY SYLLABUS COVERAGE

Applied Sciences & Humanaties

Inrtoduction to IT System

Duration: -

1st August 2025 to 26th November 2025

Branch:- 1st Sem. Civil Engineering.

Planned Periods:- Theory:- 28

Sr. No.	Periods per unit	Topic	Detail of Contents	Instruction Refereene	Additional study recommended	Remarks
1	5	UNIT 1: Basics of Computer System	Block Diagram of Computer System, General Understanding of various hardware components- CPU, Memory, Display Devices (CRT and LCD Monitors), Keyboard, Mouse, HDD.	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi.	
2	5	UNIT 2: Software Concepts	Software and its types, Operating System: Definition, types and function of Operating System, Booting the system (Cold and warm).	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi.	
3	5	UNIT 3: Internet Skills	Understanding the terminology of internet-web browser, search engine, world wide web, Types of Networks. Awareness about the government portals (state portals and national portals) and institute portals.	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi.	
4	5	UNIT 4: Working with MS- Word	File Management (Creating new document, saving a document, printing a document), Editing a document, use of Home, Insert, Design Layout ribbons.	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi	
5	5	UNIT 5: Working with MS- Excel	Working with spread sheets, entering data into the cells, merging cells, formula bar, usage of simple functions such as sum, average, min, max, percentage, round, floor ceiling, conditional formatting of cells.	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi.	
6	3	UNIT 6: Information Security	Concept of online frauds, threats of online crime, virus attacks and use of antivirus	Introduciton to IT system - Eagle Publications	Introduction to IT Systems (with Lab Manual)" by Prashant Joshi.	

Signature of Teacher

Vinay Kumar Guleria

HOD

Applied Scinecne and Humanities

Govt. Polytechnic Talwar
Distt. Kangra H.P. 176096
Lesson Plan
(Labs/Workshop)

Name of Teacher:-Gaurav Puwari	Designation:-Lecturer Auto Engg.	Group:- G 1 & G2
Name of Lab/Workshop:- Engineering Graphics	Class/Branch:- 1st sem/Civil Engg.	

Sr. No.	Description of Practical job	Date	Remarks
1	Draw horizontal, Vertical, 30 degrees, 45 degrees, 60 and 75 degrees lines, different types of lines, dimensioning styles using set squares/drafter. Write alphabets and numerical in 7:4 scale (Vertical only)	5/8, 6/8, 12/8, 13/8, 19/8	
2	Draw some problems on Engineering Plain and diagonal scale	20/8,26/8, 27/8	
3	Draw some problems on orthographic projections using first angle method of projection having plain and slanting, cylindrical surfaces, ribs and slots.	2/9, 3/9, 9/9, 10/9 , 16/9	
4	Draw some problems on Isometric view of simple objects having plain and slanting and cylindrical surface (e.g. Cube, Cone and cylinder etc.) by using natural scale.	17/9,23/9, 24/9	
5	Draw free hand sketches/ conventional representation of machine elements in sketch book such as thread profiles, nuts, bolts, studs, set screws, washers, Locking arrangements.	30/9, 1/10, 8/10, 14/10, 15/10	
6	Problem based Learning: Given the orthographic views of at least three objects with few missing lines, the student will try to imagine the corresponding objects, complete the views and draw these views in sketch book.	21/10, 28/10	
7	Draw basic 2D entities like: Rectangle, Rhombus, Polygon using AutoCAD.	29/10, 11/11	
8	Draw basic 2D entities like: Circles, Arcs, circular using AutoCAD.	12/11	
9	Draw basic 2D entities like: Circular and rectangular array using AutoCAD.	18/11	
10	Draw blocks of 2D entities comprises of Rectangle,Rhombus, Polygon,Circles, Arcs, circular and rectangular array, blocks using AutoCAD.	19/11	
11	Draw basic branch specific components in 2D using AutoCAD.	25/11	
12	Draw complex branch specific components in 2D using AutoCAD.	26/11	

Signature of Teacher

Signature of HOD

GOVT POLYTECHNIC TALWAR

(Deptt. of Applied Sciences)

Lesson Plan

(Labs/Workshop)

Session: Aug. 2025-Dec. 2025

Name of the teacher: Bhupinder Kumar	**Designation: Computer Assistant**
Name of Lab: Introduction to IT Systems	**Class: 1st Civil Engg.**

Sr.No.	Description of Practicals	Date	
		Group-1	Group-2
1	To identify the various hardware components of computer system.	12-14 / 8	8-11 /8
2	To assemble hardware components of Computer System.	19-21/8	18-22/8
3	To install Windows OS on computer system.	26-28/8	25-29/8
4	To study the various features offered on the desktop, creating new folder and new file on the desktop.	2-4/9	1-5/9
5	To work on different web browsers(google chrome , internet explorer), setting up default homepage on browser and study the various settings available.	9-11/9	8-12/9
6	To open search engines (google and yahoo) and search different information using the search engines. Creating an e-mail Account.	16-18/9	15-19/9
7	Visit various e-governance/digital India Portals and understanding the services offered.	23-25/9	22-26/9
	Revision	30/9 &9/10	29/9 &3/10
8	Opening, creating and saving a document, locating files, copying contents in some different file(s), protecting files, giving password protection for a file, Setting margins, tab setting, ruler, indenting, Entering text, cut, copy, paste using tool- bars.	14-23/10	10-13/10
9	Formatting a document, Creating and editing tables, mail-merge.	28-30/10	24-27/10
10	Working on MS – EXCEL- Creating a worksheet in Excel. Copy, Move and Merge the cells and Use various Formatting features.	4-13/11	31/10 & 3/11
11	Using formula and functions prepare worksheet for storing subject marks of ten students and perform the following:	18-20/11	7-21/11
	Calculate the student wise total and average.	18-20/11	7-21/11
	Calculate the subject wise total and average.		
	Calculate the overall percentage and also individual percentage of the student.		
	Create a chart for the abov & Revision		

HOD

Applied Sciences & Humainties

Signature

Applied Sciences Department

Subject plan for the Session 2025-2026

Name of the subject :- **Applied Physics-I Lab** Branch :- **Civil Engg.** Sem. :- 1st

Sr. No	Description of Practicals	Planned Dates		Remarks
		Group I	Group II	
1	To measure length, radius of a given cylinder, a test tube and a beaker using a Vernier caliper and find volume of each object	20 Aug.	21 Aug.	
2	To determine diameter of a wire, a solid ball and thickness of cardboard using a screw gauge.	27 Aug.	28 Aug.	
3	Revision & Viva	3 Sept.	4 Sept.	
4	To determine radius of curvature of a convex and a concave mirror/surface using a spherometer.	10 Sept.	11 Sept.	
5	To verify triangle and parallelogram law of forces.	17 Sept.	18 Sept.	
6	Revision & Viva	24 Sept.	25 Sept.	
7	To determine force constant of a spring using Hook's Law.	8 Oct.	9 Oct.	
8	To verify law of conservation of mechanical energy (PE to KE).	15 Oct.	16 Oct.	
9	Revision & Viva	29 Oct.	30 Oct.	
10	To find the co-efficient of friction between wood and glass using a horizontal board	12 Nov.	13 Nov.	
11	To find the moment of inertia of a flywheel.	19 Nov.	20 Nov.	
12	Revision & Viva	26 Nov.		

Signature of Teacher(Nemjel Choudhary)

Signature of H.O.D

GOVT. POLYTECHNIC TALWAR
PLANNING AND COVERAGE OF PRACTICALS

DEPARTMENT :- APPLIED SCIENCES AND HUMANATIES | **LABORATORY:** | **CHEMISTRY LAB**

SEM & BRANCH :- FIRST AUTOMOBILE AND CIVIL ENGG. | **SUBJCET:-** | **APPLIED CHEMISTRY (BS109)**

Sr. No.	Details of Practicals	Availability of		Likely Dates	Actual dates	Signature
		Equipment Setups	STD Ref Write up			
1	Preparation of standard solution of oxalic acid.		Applied Chemistry Laboratory Practices,Vol-I & Vol-II, NITTTR	Second week of August 2025		
2	To determine strength of given sodium hydroxide solution by titrating against standard oxalic acid solution using phenolphthalein indicator.		Chemistry for Engineers,By Agnihotri,Rajesh	Fourth week of August 2025		
3	Experimental verification of Faraday's first law of Electrolysis using Copper sulphate solution and Copper electrodes.		Engineering Chemistry by Jain & Jain	Second week of September 2025		
4	Iodometric estimation of Copper in the given Copper ore using standard Hypo solution.		Applied Chemistry Laboratory Practices,Vol-I & Vol-II, NITTTR	Fourth week of September 2025		
5	To estimate total alkalinity of given water sample by titrating it against standard Sulphuric acid solution.		Chemistry for Engineers,By Agnihotri,Rajesh	Third week of October 2025		
6	To estimate moisture in given coal sample gravimetrically		Engineering Chemistry by Jain & Jain	Fifth week of October 2025		
7	To estimate ash in given coal sample gravimetrically.		Applied Chemistry Laboratory Practices,Vol-I & Vol-II, NITTTR	Second Week of November 2025		
8	To determine viscosity of given lubricating oil by Redwood viscometer		Applied Chemistry Laboratory Practices,Vol-I & Vol-II, NITTTR	Fourth week of November 2025		

Signature of Teacher
Nidhi Katoch Lecturer Chemistry

HOD
Applied Scinecne and Humanities

Govt. Polytechnic Talwar
Distt. Kangra H.P. 176096
Lesson Plan
(Labs/Workshop)

Sports and Yoga

Name of Teacher :	Designation : Lecturer P. I. and R.S			
Name of Lab/Workshop:	Class/Branch : ~~Automobile Engg~~ Civil Engg. 1st Semester			
S. No.	Description of Practical job	Date (Group – G1 and G2)		Remarks
		G1	G2	
1	Introduction to Physical Education/Meaning & definition of Physical Education ○ Aims & Objectives of Physical Education ○ Changing trends in Physical Education	11/08/2023 and 16/08	18/08/2023 and 23/08	
2	Olympic Movement/Ancient & Modern Olympics (Summer & Winter) ○ Olympic Symbols, Ideals, Objectives & Values ○ Awards and Honours in the field of Sports in India (Dronacharya Award, Arjuna Award, Dhyanchand Award, Rajiv Gandhi Khel Ratna Award etc.	25/08/2023 and 27/08	30/08/2023 and 06/09/23	
3	Physical Fitness, Wellness & Lifestyle/Meaning & Importance of Physical Fitness & Wellness ○ Components of Physical fitness ○ Components of Health related fitness ○ Components of wellness ○ Preventing Health Threats through Lifestyle Change ○ Concept of Positive Lifestyle	06/09/2023 and 08/09	13/09/2023 and 15/09	
4	Fundamentals of Anatomy & Physiology in Physical Education, Sports and Yoga/Define Anatomy, Physiology & Its Importance ○ Effect of exercise on the functioning of Various Body Systems. (Circulatory System, Respiratory System, Neuro-Muscular	20/09/23 and 22/09/23	27/09/23 and 29/09/23	
5	Kinesiology, Biomechanics & Sports/Meaning & Importance of Kinesiology & Biomechanics in Physical Edu. & Sports ○ Newton's Law of Motion & its application in sports ○ Friction and its effects in Sports	18/4/2023	06/10/23	
6	Postures/Meaning and Concept of Postures ○ Causes of Bad Posture ○ Advantages & disadvantages of weight training ○ Concept & advantages of Correct Posture ○ Common Postural Deformities – Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis ○ Corrective Measures for Postural Deformities	11/10/23 and 13/10/23	20/10/2023	
7	Yoga/Meaning & Importance of Yoga ○ Elements of Yoga ○ Introduction - Asanas, Pranayama, Meditation & Yogic Kriyas ○ Yoga for concentration & related Asanas (Sukhasana; Tadasana, Padmasana & Shashankasana) ○ Relaxation Techniques for improving concentration Yoganidra	18/11/2023	10/12/2023	
8	Yoga & Lifestyle/Asanas as preventive measures ○ Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana ○ Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana ○ Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana ○ Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ar	18/18/2023	18/20/2023	
9	Training and Planning in Sports/Meaning of Training ○ Warming up and limbering down ○ Skill, Technique & Style ○ Meaning and Objectives of Planning ○ Tournament – Knock-Out, League/	09/10/23 and 11/10/23	16/10/23 and 18/10/23	
10	Psychology & Sports/Definition & Importance of Psychology in Physical Edu. & Sports ○ Define & Differentiate Between Growth & Development ○ Adolescent Problems & Their Management ○ Emotion: Concept, Type & Controlling of emotions ○ Meaning, Concept & Types of Aggressions in Sports ○ Psychological benefits of exercise ○ Anxiety & Fear and its effects on Sports Performance ○ Motivation, its type & techniques ○ Understanding Stress & Coping Strategies	23/10/23 and 25/10/23	30/10/23 and 01/11/23	
11	Doping Meaning and Concept of Doping ○ Prohibited Substances & Methods ○ Side Effects of Prohibited Substances	11/6/2023	11/8/2023	
12	Sports Medic. (First Aid – Definition, Aims & Objectives ○ Sports injuries: Classification, Causes & Prevention ○ Management	11/13/2023	11/13/2023	
13	Sports / Games/Following sub topics related to any one Game/Sport of choice of student out of: Athletics, Badminton, Basketball, Chess, Cricket, Kabaddi, Lawn Tennis, Swimming, Table Tennis, Volleyball, Yoga etc. ○ History of the Game/Sport ○ Latest General Rules of the Game/Sport (a) ○ Specifications of Play Fields and Related Sports Equipment ○ Important Tournaments and Venues ○ Sports Personalities ○ Proper Sports Gear	18/11/23 and 20/11/23	25/11/23 and 27/11/23	

Signature of Teacher

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Govt. Polytechnic Talwar
Distt. Kangra H.P. 176096
Lesson Plan
Session: August 2025 -December 2025

Name of Teacher:-Meenakshi Saini	Designation:-HOD (AS & H)	Group:- G 1
Name of Lab/Workshop:- Communication Skills in English	Class/Branch:- 1st sem/Civil Engg.	

Sr. No.	Unit	Description of Practical job	Date	Remarks
		Orientation	7/8/25	
1	Unit 1: Listening Skills	Listening Process and Practice: Introduction to recorded lectures, poems, interviews and speeches, listening tests.	14/8/25, 21/8/25	
2	Unit II: Introduction to Phonetics	1. Sounds: consonant, vowel, diphthongs, etc. transcription of words (IPA), syllable division,	21/8/25, 28/8/25	
		2. Word stress, intonation, voice modulation etc.	28/08/25, 4/9/25	
3	Unit III: Speaking Skills- Standard & formalspeech	Group discussion	4/9/25, 11/9/25	
		Oral presentations	11/9/25 , 18/9/225	
		Public speaking, business presentations etc	18/9/25, 25/09/25	
		Conversation practice	25/9/25, 09/10/25	
		Role playing	09/10/25, 30/10/25,	
		Mock interviews	30/10/25, 13/11/25, 20/11/25	

Signature of Teacher

Signature of HOD

Govt. Polytechnic Talwar
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Lesson Plan
Session: August 2025 -December 2025

Name of Teacher:-Meenakshi Saini	Designation:-HOD (AS & H)	Group:- G 2
Name of Lab/Workshop:- Communication Skills in English	Class/Branch:- 1st sem/Civil Engg.	

Sr. No.	Unit	Description of Practical job	Date	Remarks
		Orientation	6/8/25	
1	Unit 1: Listening Skills	Listening Process and Practice: Introduction to recorded lectures, poems, interviews and speeches, listening tests.	13/8/25, 20/8/25	
2	Unit II: Introduction to Phonetics	1. Sounds: consonant, vowel, diphthongs, etc. transcription of words (IPA), syllable division,	27/08/25 3/9/25,	
		2. Word stress, intonation, voice modulation etc.	10/9/25, 17/09/25	
3	Unit III: Speaking Skills- Standard & formalspeech	Group discussion	17/9/25, 24/9/25, 1/10/25	
		Oral presentations	1/10/25, 08/10/25	
		Public speaking, business presentations etc	8/10/25, 15/10/25	
		Conversation practice	15/10/25, 22/10/25	
		Role playing	22/10/25, 29/10/25	
		Mock interviews	12/11/25, 19/11/25, 26/11/25	

Signature of Teacher

Signature of HOD