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: Automobile Engg.

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

42		1st	1,3			
43 44 45 46		2nd	6,8,9,10		Differentiation of function of function	
47 48 49 50 51	Oct.	3rd	13,14,15, 16,17		Differentiation of trigonometric and inverse trigonometric function	Class Test 2
52 53 54 55		4th	1,22,23,2		Logarithmic differentiation	
56 57 58 59 60		5th	27,28,29, 30,31		Complex Numbers : Definition,real and imaginary parts of a complex number	
61 62 63 64		1st	3,4,6,7		polar and cartesian representation of a complex number and its conversion from one form to other	
65 66 67		2nd	10,11,12, 13,14		conjugate, modulus and amplitude ;addition, subtraction,multiplication and division f a complex number	House Test
68 69	Nov.				De-moivre's theorem and its applications	
70 71 72 73 74		3rd	17,18,19, 20,21	Algebra	Partial fractions : Definition of polynomial fractionproper and improper fraction. Resolve proper fraction into partial fraction with denominator containing non-repeated	
75 76		4th	24,25,26,27,28		Permutation and Combination	
80 81 82 83 84	Dec.	1st	1,2,3,4,5		Binomial theorem for positive integral index (expansion and general term); binomial theorem for any index (without proof) first and second approximationwith applications to	
85		2nd	8		Formula Revision	

SignatureOf Teacher

HOD
Applied Sciences

GOVT. POLYTECHNIC TALWAR, DISTT. KANGRA, H.P. 01.08.2025

PLANNED THEORY SYLLABUS COVERAGE

Applied Sciences & Humanities | Duration: -

Applied Physics - I **(BS103)** | 1st August 2025 to 26th November **2025**

Branch:- 1st Sem. Automobile Engineering

Allotted Periods:- Theory:- **56** **Practical :- 28**

Periods per unit	Topic	Detail of Contents	Instruction Refereene	Additional study recommended	Remarks
1	10	**UNIT I Physical world,Units and Measurements**	Physical quantities: fundamental and derived. Units and systems of units (FPS, CGS and SI units), Dimensions and dimensional formulae of physical quantities. Principle of homogeneity of dimensions. Dimensional equations and their applications (conversion from one system of units to other, checking of dimensional equations and derivation of simple equations). Limitations of dimensional analysis. Errors in measurements (systematic and random), absolute error, relative error, error estimation and significant figures.	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	
2	10	**UNIT II Force and Motion**	Scalar and Vector quantities – examples, representation of vector, types of vectors. Addition and Subtraction of Vectors, Triangle and Parallelogram law (Statementonly), Scalar and Vector Product. Resolution of a Vector and its application to inclined plane (Rectangular components) and lawn roller. Force, Momentum, Statement and derivation of conservation of linear momentum, its applications such as recoil of gun & rockets. Impulse and its applications. Circular motion, definition of angular displacement, angular velocity, angular acceleration, frequency, time period. Relation between linear and angular velocity, linear acceleration and angular acceleration (related numerical). Centripetal and Centrifugal forces with five examples. Expression and applications such as banking of roads and bending of cyclist.	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	
3	9	**UNIT III Work Power and Energy**	Work: Concept and units, examples of zero work, positive work and negative work. Friction: concept, types, laws of limiting friction, coefficient of friction, methods for reducing friction and its engineering applications. Work done in moving an object on horizontal and inclined plane for rough and plane surfaces and related applications. Energy and its units, kinetic energy, gravitational potential energy with examples and derivations. Mechanical energy, conservation of mechanical energy for freely falling bodies, transformation of energy (examples). Power and its units, power and work relationship, calculation of power (numerical problems).	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	
4	8	**UNIT IV Rotational Motion**	Translational and rotational motions with examples. Definition of torque and angular momentum and their examples. Conservation of angular momentum (quantitative) and its applications. Moment of inertia and its physical significance, radius of gyration for rigid body. Theorems of parallel and perpendicular axes (statements only). Moment of inertia of rod, disc, ring and sphere (hollow and solid). (Formulae only)	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	
5	10	**UNIT V Properties of Matter**	Elasticity. Definition of stress and strain, different types of modulii of elasticity. Hooke's law, significance of stress-strain curve. Pressure: definition, units, atmospheric pressure, gauge pressure, absolute pressure. Torna's Barometer and its applications. Surface tension: concept, units, cohesive and adhesive forces, angle of contact. Ascent Formula (No derivation), applications of surface tension, effect of temperature and impurity on surface tension.	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	
6	9	**UNIT VI Heat and Thermometry**	Concept of heat and temperature. Modes of heat transfer (conduction, convection and radiation with examples), scales of temperature and their relationship. Types of Thermometer (Mercury thermometer, bimetallic thermometer, Platinum resistance thermometer, Pyrometer) and their uses. Expansion of solids, liquids and gases, coefficient of linear, surface and cubical expansions and relation amongst them. Co-efficient of thermal conductivity.	Applied Physics I Eagle Prakashan	Concepts of Physics Vol-I, by H.C. Verma (ii) Engineering Physics by DK Bhatacharya and Poonam Tandan	

01/8/2025

Signature of Teacher

Vinay Kumar Guleria

Lect. Physics

HOD

Applied Scinecne and Humanities

GOVT. POLYTECHNIC TALWAR
PLANNED THEORY SYLLABUS COVERAGE

Applied Sciences & Humanities

Applied Chemistry - I

Branch: (1) Sem. Automobile & Civil Engg. Duration: - 1st Aug. 2025 to 28th Nov. 2025

Total Periods: Theory :- 56 Practical :- 28

S. No.	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), H2 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,18 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	3	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

Govt. Polytechnic Talwar
Distt. Kangra H.P. 176096

LESSON PLAN

Name of Teacher :- Parveen Kumari **Subject: Communication Skills in English Class: 1st Semester Auto. Engg.**

Session: August 2025-December 2025

S. No.	Month	Week	Date	Name of Chapter	Contents to be taught	Remarks
1	August	1st week	2	Communication: Theory and Practice	Orientation Programme	
2		2nd week	5,6		Orientation Programme	
3		3rd week	12,13		Basics of communication: Introduction, meaning and definition, process of communication etc.	
4		4th week	19,20,23		Types of communication: formal and informal, verbal, non verbal and written , Barriers to effective communication	
5		5th week	26,27,30		7Cs for effective communication, Art of Effective Communication,Technical Communication	
6		1st week	2,3,6	Soft Skills for Professional Excellence	Introduction: Soft Skills and Hard Skills, Importance of soft Skills,	
7		2nd week	9,10		Life skills, Applying soft skills across cultures	Class Test-1

8	September	3rd week	16,17,20	Reading Comprehension	Short Stories: The Gift of the Magi by O. Henry	
9		4th week	23,24,27		Uncle Podger Hangs a Picture by Jerome K. Jerome Poetry: (1) Night of the Scorpion by Nissim Ezekiel	
10		1st week	30,1,4		(2) Stopping by Woods on a Snowy Evening by Robert Frost (3) Where the Mind is Without Fear by Rabindranath Tagore	
11		2nd week	8	Professional Writing	The Art of precis writing	
12	October	3rd week	14,15		The Art of precis writing	**Class Test- 2** Diwali Vacation
13		4th Week	21,22,25		Letters: Business and Personal, Drafting e-mail	
14		5th week	28,29,1		Drafting notices, minutes of a meeting etc.	
15		1st week	4	Vocabulary and Grammar	Glossary of administrative terms (English and Hindi), One-word substitution, Idioms and phrases	
16	November	2nd week	11,12,15		**House Test**	
17		3rd week	18,19,22		Parts of Speech, active and passive voice	
18		4th week	25,26		Tenses, Punctuation	

Signature of HOD

Signature of Teacher

PARVEEN KUMARI

Govt. Polytechnic Talwar (H.P.)

Lesson Plan

Session: Aug. 2025-Dec. 2025

Name of the teacher: Nemjel Choudhary	Designation: Sr. Lect (AS&H)
Name of Subject: Introduction to IT Systems	Class: Ist Sem (Automobile Engg.)

Sr. No.	Date	Name of the Chapter	Contents to be taught	Remarks
1	4,5,11,12 Aug.	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.	
2	18,19,25,26 Aug.	UNIT 2: Software Concepts	Software and its types, Operating System: Definition, types and function of Operating System, Booting the system (Cold and warm).	
3	1,2,8,9 Sept.	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.	
4	22,23,29,30 Sept.	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.	
5	6,13,27,28 Oct.	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.	
6	3,4,10,11 Nov.	UNIT 6: Information Security	Concept of online frauds, threats of online crime, virus attacks and use of antivirus	
7	17,18,24,25 Nov.	Revision		

Signature of the Teacher

HOD (AS&H)

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/Automobile 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)	1/8,7/8,8/8, 14/8	
2	Draw some problems on Engineering Plain and diagonal scale	21/8,22/8, 28/8	
3	Draw some problems on orthographic projections using first angle method of projection having plain and slanting, cylindrical surfaces, ribs and slots.	29/8. 4/9,5/9, 11/9,12/9	
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.	18/9,19/9, 25/9, 26/9	
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.	3/10. 9/10, 10/10, 23/10, 24/10	
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.	30/10,31/10	
7	Draw basic 2D entities like: Rectangle, Rhombus, Polygon using AutoCAD.	13/11	
8	Draw basic 2D entities like: Circles, Arcs, circular using AutoCAD.	13/11	
9	Draw basic 2D entities like: Circular and rectangular array using AutoCAD.	14/11	
10	Draw blocks of 2D entities comprises of Rectangle,Rhombus, Polygon,Circles, Arcs, circular and rectangular array, blocks using AutoCAD.	14/11	
11	Draw basic branch specific components in 2D using AutoCAD.	20/11	
12	Draw complex branch specific components in 2D using AutoCAD.	21/11	

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 Auto Engg.**

Sr.No.	Description of Practicals	Date	
		Group-1	Group-2
1	To identify the various hardware components of computer system.	8-22/8	13-14/8
2	To assemble hardware components of Computer System.	23-29/8	20-21/8
3	To install Windows OS on computer system.	30/8 &5/9	27-28/8
4	To study the various features offered on the desktop, creating new folder and new file on the desktop.	6-12/9	10-11/9
5	To work on different web browsers(google chrome , internet explorer), setting up default homepage on browser and study the various settings available.	20-26/9	17-18/9
6	To open search engines (google and yahoo) and search different information using the search engines. Creating an e-mail Account.	37/9 & 3/10	24-25/9
7	Visit various e-governance/digital India Portals and understanding the services offered.	4-10/10	8-9/10
	Revision	24/10	15 & 22/10
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.	25-31/11	23-30/10
9	Formatting a document, Creating and editing tables, mail-merge.	1-7/11	5-12/11
10	Working on MS – EXCEL- Creating a worksheet in Excel. Copy, Move and Merge the cells and Use various Formatting features.	14-15/11	13-19/11
11	Using formula and functions prepare worksheet for storing subject marks of ten students and perform the following:	21-22/11	20-26/11
	□ Calculate the student wise total and average.		
	□ Calculate the subject wise total and average.		
	□ Calculate the overall percentage and also individual percentage of the student.		
	□ Create a chart for the above.		

HOD

Applied Sciences & Humainties

Signature

Govt. Polytechnic Talwar

Lesson Planning (Practical)

nch: **Automobile Engineering** Semester: First

bject: **App. Physics I** Session: August 2025 to Sept. 2025

Teacher: Laboratory: **Physics Lab**

Sr. No	Description of Practical	Refrence for procedure / writeup	Likely Dates	Actual Dates	Signature
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.	Applied Physics I By RA BANWAT or Comprehensive Practical Physic	First week of August		
2	To determine diameter of a wire, a solid ball and thickness of cardboard using a screw gauge.	Applied Physic I By RA BANWAT or Comprehensive Practical Physic	Second Week Of August		
3	To determine radius of curvature of a convex and a concave mirror/surface using a spherometer.	Applied Physic I By RA BANWAT or Comprehensive Practical Physic	Fourth week of August		
4	To verify triangle and parallelogram law of forces.	Applied Physic I By RA BANWAT or Comprehensive Practical Physic	Second Week of September		
5	To determine force constant of a spring using Hook's Law.	Applied Physic I By RA BANWAT or Comprehensive Practical Physic	Third Week of September		
6	To verify law of conservation of mechanical energy (PE to KE).	Applied Physic I By RA BANWAT	fourth Week of September		
7	To find the moment of inertia of a flywheel.	Applied Physic I By RA BANWAT	First week of October		
8	To determine atmospheric pressure at a place using Fortin's barometer.	Applied Physic I By RA BANWAT	Second week of October		

RECOMMENDED BOOKS -Text book of Physics, N.C.E.R.T., App.Physics I By RA Banwat, Comprehensive Practical Physics.

Signature of Subject Teacher.

Signature of HOD.

GOVT. POLYTECHNIC TALWAR
PLANNING AND COVERAGE OF PRACTICALS

PARTMENT :- APPLIED SCIENCES AND HUMANATIES		LABORATORY:	CHEMISTRY LAB
EM & BRANCH :- FIRST AUTOMOBILE AND CIVIL ENGG.		SUBJCET:-	APPLIED CHEMISTRY (BS109)

	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 Tahwar

(Deptt. Of Applied Sciences)

Lesson Plan

Session: August-2025-December-2026

Name of teacher: Sangeeta Sharma

Designation: Lecturer Mathematics

Name of Subject: Sports and Yoga

Class: Automobile Engg

Sr. No.	Month	Week	Dates(G1)	Dates(G2)	Topic	Contents to be taught
1	August	1st	6			Orientation
2		2nd	13		Introduction to Physical Education	Meaning & definition of Physical Education. o Aims & Objectives of Physical Education. o Changing trends in Physical Education.
3		3rd	20	23	Olympic Movement	Ancient & Modern Olympics (Summer & Winter.) o Olympic Symbols, Ideals, Objectives & Values. o Awards and Honours in the field of Sports in India (Dronacharya Award, Arjuna Award, Dhayanchand Award, Rajiv Gandhi Khel Ratna Award etc.).
4		4th	27	30	Physical Fitness, Wellness & Lifestyle	Meaning & Importance of Physical Fitness & Wellness. o Components of Physical fitness. o Components of Health related fitness. o Components of wellness. o Preventing Health Threats through Lifestyle Change. o Concept of Positive Lifestyle
5	September	1st	3	6	Fundamentals of Anatomy & Physiology in Physical Education, Sports and Yoga	Define Anatomy, Physiology & its importance. o Effect of exercise on the functioning of Various Body Systems. (Circulatory System, Respi- ratory System, Neuro-Muscular System etc.).
6		2nd	10		Kinesiology, Nomechanics & Sports	Meaning & Importance of Kinesiology & Biomechanics in Physical Edu. & Sports. o Newton's Law of Motion & its application in sports. o Friction and its effects in Sports.
7		3rd	17	20	Postures	Meaning and Concept of Postures. o Causes of Bad Posture. o Advantages & disadvantages of weight training. o Concept & advantages of Correct Posture. o Common Postural Deformities – Knock Knee, Flat Foot; Round Shoulders; Lordosis, Ky- phosis, Bow Legs and Scoliosis. o Corrective Measures for Postural Deformities.
8		4th	24	27	Yoga	Meaning & Importance of Yoga. o Elements of Yoga. o Introduction - Asanas, Pranayama, Meditation & Yogic Kriyas o Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Sha-shankasana). o Relaxation Techniques for improving concentration Yognidra.
9	October	1st	1	4	Yoga & Lifestyle	Asanas as preventive measures. o Hypertension: Tadasana, Vajrasana, Pawan Muktasana, Ardha Chakrasana, Bhujangasana,Sharasana. o Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana. o Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana. o Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pawan Muktasana, Ardh Matsyendrasana.Asthema: Procedure, Benefits & contraindications for Sukhasana, Chakrasana,Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana.
10		2nd	8		Training and Planning in Sports	Meaning of Training. o Warming up and limbering down. o Skill, Technique & Style. o Meaning and Objectives of Planning. o Tournament – Knock-Out, League/Round Robin & Combination
11		3rd	15	18	Psychology & Sports	Definition & Importance of Psychology in Physical Edu. & Sports. o Define & Differentiate Between Growth & Development o Adolescent Problems & Their Management. o Emotion: Concept, Type & Controlling of emotions. o Meaning, Concept & Types of Aggressions in Sports. o Psychological benefits of exercise. o Anxiety & Fear and its effects on Sports Performance. o Motivation, its type & techniques. o Understanding Stress & Coping Strategies.
12		4th	22	25		
13		5th	29		Doping	Meaning and Concept of Doping. o Prohibited Substances & Methods. o Side Effects of Prohibited Substances
14		1st		1		
15	November	2nd	12	15		
16		3rd	19	22	Sports Medicine	First Aid – Definition, Aims & Objectives. o Sports Injuries: Classification, Causes & Prevention. o Management of Injuries: Soft Tissue Injuries and Bone & Joint Injuries
17		4th	26	29		
18	December	1st	3	6	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. o History of the Game/Sport. o Latest General Rules of the Game/Sport.

SignatureOf Teacher

HOD

Applied Sciences

Govt. Polytechnic Talwar
Distt. Kangra H.P. 176096
Lesson Plan
Session: August2025 -December 2025

Name of Teacher:- Parveen Kumari	Designation:-Lecturer (AS&H)	Group:- G 1 and G 2
Name of Lab :- Communication Skills in English -Lab.	Class/Branch:- 1st semester/ Auto Engg.	

Sr. No	Description of Practical job	Date (G1)	Date (G2)	Remarks
1	**Listening Skills- Listening Process and Practice:** Introduction to recorded lectures,poems,interviews and speeches, listening tests	12/08/2025 19/08/2025	11/8/2025 18/8/2025	
2	**Introduction to Phonetics-** (1) Sounds: consonants, vowels, diphthongs,etc. transcription of words (IPA), syllable division	26/08/2025 2/09/2025 9/09/2025	25/08/2025 01/09/2025 8/09/2025	
	(2) Word stress, intonation, voice modulation etc.	16/09/2025 23/09/2025	15/09/2025 22/09/2025	
3	**Speaking Skills: Standard and formal speech:** Group Discussion	30/09/2025 14/10/2025	29/09/2025 6/10/2025	
	Oral Presentations, Public speaking, business presentations etc	21/10/2025	13/10/2025	
	Conversation Practice	28/10/2025 4/11/2025	27/10/2025 3/11/2025	
	Role playing	04/11/2025 18/11/2025	03/11/2025 17/11/2025	
	Mock Interviews	18/11/2025 25/11/2025	17/11/2025 24/11/2025	

Signature of Teacher
PARVEEN KUMARI

Signature of HOD