LESSON PLAN

Program Name	DIPLOMA IN Eltx. & Comm. Engg.
Course/Subject Name	Mathematics-I
Course/Subject Code	BS 101
Course/Subject Coordinator Name	Dr. Reena Kumari

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Mathematics-I	3(Th)+2(DCS)	40	-	60	-

Reference books:	(1) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition, 2007.
	(2) G. B. Thomas, R.L. Finney, Calculus and Analytic Geometry, Addison Wesley, 9th Edition, 1995.
	(3) Reena Garg, Engineering Mathematics, Khanna Publishing House, New Delhi (Revised Ed. 2018)
	(4) V. Sundaram, R. Balasubramanian, K.A. Lakshminarayanan, Engineering Mathematics, 6/e., Vikas Publishing House
	(5) Reena Garg & Chandrika Prasad Advanced Engineering Mathematics, Khanna Publishing House, New Delhi.

Course Outcomes: After the completion of the course, the students will be able to learn:

CO1	Acquire necessary background in Trigonometry to appreciate the importance of the geometric study as well as for the calculation and the mathematical analysis.
CO2	The ability to find the effects of changing conditions on a system.
CO3	Complex numbers enter into studies of physical phenomena in ways that most people cannot imagine.
CO4	The partial fraction decomposition lies in the fact that it provides an algorithm for computing the anti derivative of a rational function.

Teaching Plan:

Lecture No.	Name of topic	Proposed date	Actual date	Remarks
1	**Trigonometry** : Concept of angles	11/08/2025		
2	Concept of angles	12/08/2025		
3	Measurement of angles in degrees, grades and radians and their conversions	13/08/2025		
4	Measurement of angles in degrees, grades and radians and their conversions	14/08/2025		
5	Measurement of angles in degrees, grades and radians and their conversions	18/08/2025		
6	T-Ratios of Allied angles	19/08/2025		
7	T-Ratios of Allied angles	20/08/2025		
8	Sum, difference formulae and their applications	21/08/2025		
9	Sum, difference formulae and their applications	22/08/2025		
10	Sum, difference formulae and their applications	25/08/2025		
11	Product formulae (Transformation of product to sum, difference and vice versa)	26/08/2025		
12	Product formulae (Transformation of product to sum, difference and vice versa)	27/08/2025		
13	Product formulae (Transformation of product to sum, difference and vice versa)	28/08/2025		
14	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2)	29/08/2025		
15	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2)	01/09/2025		
16	Graph of sin x	02/09/2025		
17	Graph of cos x	03/09/2025		
18	**Differential Calculus:** Definition of function	04/09/2025		
19	Definition of function	05/09/2025		
20	Concept of limits	08/09/2025		
21	Concept of limits	09/09/2025		
24	Four standard limits, $\frac{x^n-a^n}{x-a}$, $\frac{\sin x}{x}$, $(1+x)^{\frac{1}{x}}$, $\frac{a^x-1}{x}$	10/09/2025		
22	Class Test-I	11/09/2025		
24	Four standard limits, $\frac{x^n-a^n}{x-a}$, $\frac{\sin x}{x}$, $(1+x)^{\frac{1}{x}}$, $\frac{a^x-1}{x}$	12/09/2025		
25	Differentiation by definition of sinx, cosx, tanx	15/09/2025		
26	Differentiation by definition of x^n, e^x	16/09/2025		
27	Differentiation formulae	17/09/2025		

28	Differentiation of sum and difference of functions	18/09/2025		
29	Differentiation of sum and difference of functions	19/09/2025		
30	Differentiation of product and quotient of functions	22/09/2025		
31	Differentiation of product and quotient of functions	23/09/2025		
32	Differentiation of function of a function	24/09/2025		
33	Differentiation of function of a function	25/09/2025		
34	Differentiation of trigonometric and inverse trigonometric functions	26/09/2025		
35	Differentiation of trigonometric and inverse trigonometric functions	29/09/2025		
36	Differentiation of trigonometric and inverse trigonometric functions	30/09/2025		
37	Logarithmic differentiation	01/10/2025		
38	Logarithmic differentiation	03/10/2025		
39	**Complex Numbers:** Definition, real and imaginary parts of a complex number, conjugate of a complex number	06/10/2025		
40	Addition and Subtraction of complex numbers	08/10/2025		
41	Multiplication and Division of complex numbers	09/10/2025		
42	Multiplication and Division of complex numbers	13/10/2025		
43	Class Test-II	14/10/2025		
44	Modulus and amplitude of a complex number	15/10/2025		
45	Polar and Cartesian, representation of a complex number and its conversion from one form to other	21/10/2025		
46	Polar and Cartesian, representation of a complex number and its conversion from one form to other	22/10/2025		
47	De-movier's theorem, its application	24/10/2025		
48	**Partial fractions:** Definition of polynomial fraction proper & improper fractions and definition of partial fractions	27/10/2025		
49	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors	28/10/2025		
50	To resolve proper fraction into partial fraction with denominator containing repeated linear factors	29/10/2025		
51	To resolve proper fraction into partial fraction with denominator containing repeated and non repeated linear factors	30/10/2025		
52	**Permutations and Combinations:** Value of P(n,r) and C(n,r)	31/10/2025		
53	Value of P(n,r) and C(n,r)	03/11/2025		
54	Value of P(n,r) and C(n,r)	04/11/2025		
55	**Binomial theorem:** Binomial theorem for positive integral index (expansion and general form)	06/11/2025		
56	Binomial theorem for positive integral index (general form)	07/11/2025		
57	Binomial theorem for positive integral index (general form)	13/11/2025		
58	Binomial theorem for any index	14/11/2025		

59	Binomial theorem for any index	17/11/2025		
60	First and second binomial approximation with applications to engineering problems	18/11/2025		
61	First and second binomial approximation with applications to engineering problems	19/11/2025		
62	DCS on the topic covered in previous classes	20/11/2025		
63	DCS on the topic covered in previous classes	21/11/2025		
64	DCS on the topic covered in previous classes	24/11/2025		
65	DCS on the topic covered in previous classes	25/11/2025		
66	DCS on the topic covered in previous classes	26/11/2025		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed week/date	Actual date	Remarks
A-1	Trigonometry & Differential Calculus	3rd week of Sept. 2025		
A-2	Differential Calculus & Algebra	Ist week of Nov. 2025		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed week/date	Actual date	Remarks
CT-I	30% of the syllabus	2nd week of Sept. 2025		
CT-II	Next 30% of the syllabus	3th week of Oct. 2025		
House Test	80% of the syllabus	2nd week of Nov. 2025		

Signature of Teacher

Dr. Neeraj Kumar

Signature of HOD

LESSON PLAN

Program Name	Eltx & Comm. Engg
Course/Subject Name	Applied Physics-I
Course/Subject Code	BS-103 & BS-106
Course/Subject Coordinator Name	Pritam Singh Dogra

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Applied physics-I & Applied Physics-I lab	TH [3+1(DCS)] + 2 (Lab)	40	40	60	60

Reference books	(i)	Fundamental of Physics By Halliday/Resnick/Walker
	(ii)	New simplified Physics by S.L.Arora
	(iii)	Applied Physics, Vol. I and Vol. II, TTTI Publications, Tata McGraw Hill, Delhi
	(iv)	Engineering Physics by DK Bhattacharya & Poonam Tandan; Oxford University Press, New Delhi

Course Outcomes: After the completion of the course the student will be able to

CO1	Understand the importance of applied physics in describing physical phenomena.
CO2	Employ the knowledge of units and dimensions for various types of measurements.
CO3	Understand the importance of various types of errors while doing measurements.
CO4	Understand the basic forces present in the nature and their effects in daily life.
CO5	Understand energy, work, power and their importance.
CO6	Understand the basic phenomena like elasticity, surface tension, pressure etc.
CO7	Differentiate between heat and temperature and their measurements.

Teaching Plan:

Lecture No.	Name of topic	Proposed date	Actual date	Remarks
1	**Unit-1 Physical world, Units & Dimensions:** Physical quantities - fundamental and derived,	11.8.25		
2	Units & systems of units (FPS, CGS and SI units)	12.8.25		
3-4	Dimensions and dimensional formulae of physical quantities	14.8.25		
5	Principle of homogeneity of dimensions	21.8.25		
6	Dimensional equations and their applications, conversion from one system of units to other,	22.8.25		
7	checking of dimensional equations and derivation of simple equations)	8.9.25		
8	Limitations of dimensional analysis	9.9.25		
9	Error in measurement (systematic & random), absolute error, relative error, error estimation and significant figures	11.9.25		
10	**Unit-2 Force &motion:** Scalar and vector quantities – examples, representation of vector, types of vectors	12.9.25		
11-12	Addition and Subtraction of Vectors, Triangle and Parallelogram law (Statement only),	15.9.25		
13	Scalar and Vector Product.	16.9.25		
14	Resolution of Vectors and its application to inclined plane (Rectangular components) and lawn roller	18.9.25		

15-16	Force, Momentum, Statement and Derivation of Conservation of linear momentum, its applications such as recoil of gun & rocket	19.9.25		
17	Impulse and its Applications	20.9.25		
18	Circular motion, definition of angular displacement, angular velocity, angular acceleration, frequency, time period	22.9.25		
19	Relation between linear and angular velocity, linear acceleration and angular acceleration (related numerical)	23.9.25		
20	Centripetal and centrifugal forces with live examples such as banking of roads and bending of cyclist	25.9.25		
21	**Unit-3 Work, Power & Energy** Work: Concept and units, examples of zero work, positive work and negative work	26.9.25		
22	Friction: concept, types, laws of limiting friction, Coefficient of friction, methods for reducing friction and its Engineering Applications	6.10.25		
23	Work done in moving an object on horizontal and inclined plane for rough and plane surfaces and related applications	7.10.25		
24	Energy and its units: Kinetic energy and gravitational potential energy with examples and their derivation	9.10.25		
25-26	Mechanical energy, conservation of mechanical energy for freely falling bodies, transformation of energy(examples)	13.10.25		
27	Power and its units, power and work relationship, calculation of power (numerical problems)	14.10.25		
28	**Unit-4 Rotational motion** Translational and rotational motions with examples	21.10.25		
29	Definition of torque and angular momentum and their examples	22.10.25		
30	Conservation of angular momentum (quantitative) and its applications	23.10.25		
31	Moment of inertia and its physical significance, radius of gyration for rigid body,	24.10.25		
32	Theorems of parallel and perpendicular axes (statements only), Moment of inertia of rod, disc , ring and sphere(hollow and solid) : (Formulae only)	27.10.25		
33	**Unit-5 Properties of matter** Elasticity: definition of stress and strain, different types of modulii of elasticity,	28.10.25		
34	Hooke's law, significance of stress strain curve	29.10.25		
35	Pressure: definition, units, atmospheric pressure, gauge pressure, absolute pressure, Fortin's barometer and its applications	30.10.25		
36	Surface tension: concept, units , cohesive and adhesive forces, angle of contact	3.11.25		
37	Ascent Formula (No derivation), applications of surface tension,	4.11.25		
38	effect of temperature and impurity on surface tension	6.11.25		
39	**Unit-6 Thermometry:** Concept of heat and temperature	7.11.25		
40	Modes of transfer of heat (Conduction, convection and radiation with examples)	10.11.25		
41	scales of temperature and their relationship	11.11.25		
42	Types of Thermometer (Mercury Thermometer, Bimetallic Thermometer)	13.11.25		
43	Platinum resistance thermometer and pyrometer and their uses	14.11.25		
44-45	Expansion of solids, liquids and gases, coefficient of linear, surface and cubical expansions and relation amongst them,	17.11.25		
46	Co-efficient of thermal conductivity	18.11.25		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed date	Actual date	Remarks
A-1	Physical world, Units & dimensions ,force and motion	09.9.25		
A-2	Work, power, Energy and rotational motion	14.10.25		
A-3	Properties of matter and thermometry	07.11.25		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	05.9.25		
CT-II	Next 30% of the syllabus	23.10.25		
House Test	80% of the syllabus	06.11.25		

Lab Plan:

Exp. No.	Name of experiment	Proposed date G-1/G2	Actual date G-1/G2	Remarks
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.	13.8.25 & 22.8.25		
2	To Determine diameter of wire, a solid ball and thickness of a cardboard using a screw gauge.	20.8.25 & 29.8.25		
3	To determine radius of curvature of a convex and concave mirror/surface using a spherometer.	27.8.25 & 5.9.25		
4	To verify triangle and parallelogram law of forces.	3.9.25 & 12.9.25		
5	To determine force constant of spring using Hooke's law	10.9.25 & 19.9.25		
6	To verify law of conservation of Mechanical energy (PE to KE).	17.9.25 & 26.9.25		
7	To find the Moment of Inertia of a flywheel.	24.9.25 & 3.10.25		
8	To measure room temperature and temperature of a hot bath using mercury thermometer and convert it into different scales.	01.10.25 & 17.10.25		

(Parkash Singh Dogra)

(Signature of Teacher)

(Signature of HOD)

LESSON PLAN

Program Name	Diploma (Eltx.&Comm.Engg.)
Course/Subject Name	Applied Chemistry
Course/Subject Code	Applied Chemistry: BS105 (Th) & BS109 (Pr)
Course/Subject Coordinator Name	Swati Bhardwaj

Evaluation scheme:

SN	Subject Name	Study Scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1	Applied Chemistry Theory + Applied Chemistry Practical	4 Th (Including DCS) + 4 Pr (G1: 2 G2: 2 hrs)	40	40	60	60

REFERENCE BOOKS	1. Dr.Vairam, S.,Engineering Chemistry,Wiley India Pvt.Ltd.,New Delhi, 2013
	2. S.C.Ahuja ,Applied Chemistry, Eagle Prakashan
	3. TextBook Of Chemistry forClass XI & XII(Part-I,Part-II);NCERT.,Delhi,2017-18
	4. Dr.G.Hugar & Prof. A.N.Pathak Applied Chemistry Laboratory Practices, NITTTR
	5. Agnihotri, Rajesh, Chemistry for EngineersWiley India Pvt.Ltd.,2014
	6. Eagle's Applied Chemistry By S C Ahuja Edited by Dr Vibha Sharma and Aman Saini

Course Outcomes: After the completion of the course the student will be able to:

CO1	Understand the classification and general properties of engineering materials such as metals, alloys and refractory using knowledge of chemical bonding.
CO2	Understand and assess the suitability of water source for domestic and industrial application, effluent and minimize water pollution.
CO3	Understand how to analyze engineering materials, their properties and applications.
CO4	Understand the use of fuel and lubricants suitable for economical industrial processing eco-friendly products
CO5	Understand construction and mechanism efficiency of electrochemical cells.
CO6	Understand the corrosion and develop prevention techniques.

Teaching Plan

Lect. No.,	Name of topic	Proposed Date	Actual Date	Remarks
1	**Unit-1: Atomic Structure**: Fundamental particles (electron, proton, neutron), Bohr's theory (Postulates)	11.08.2025		
2	Bohr's theory (successes & limitations).	14.08.2025		
3	Heisenberg uncertainty principle, Hydrogen spectrum.	14.08.2025		
4	Orbital concept,difference between orbit and orbital, **DCS**	18.08.2025		
5	Shapes of s and p orbitals.	21.08.2025		
6	Quantum numbers.	22.08.2025		
7	Pauli's exclusion principle, Hund's rule of maximum multiplicity,Aufbau rule.	23.08.2025		
8	Electronic configuration(Z=1 to 30) & **DCS**	25.08.2025		
9	**Unit-2.Chemical Bonding and Solutions**: Concept of chemical bonding – cause of chemical bonding, types of bonds: ionic bonding (NaCl example) , Lewis concept of covalent bond (H2, F2, HF). Electronegativity.	28.08.2025		
10	Difference between sigma and pie bond.	28.08.2025		
11	Electron sea model of metallic bond. Idea of solute, solvent and solution.	29.08.2025		
12	Methods to express concentration of solution: Molarity, molality, mass percentage & **DCS**	30-08-2025		
13	**Unit-3 Electrochemistry and Corrosion**: Faraday's laws of electrolysis.	01.09.2025		
14	Simple numerical problems on Faraday's laws of electrolysis.	04.09.2025		
15	Industrial application of Electrolysis – • Electrometallurgy	04.09.2025		
16	• Electroplating, Electrolytic refining	05.09.2025		
17	• Electrolytic refining	06.09.2025		
18	PrimaryApplication of redox reactions in electrochemical cells – dry cell.Secondary cell - commercially used lead acid storage battery & **DCS**	08.09.2025		
19	***Class test I***	11.09.2025		
20	Introduction to Corrosion of metals – definition, types of corrosion (electrochemical).	12.09.2025		

21	H_2 liberation and O_2 absorption mechanism of electrochemical corrosion	12.09.2025		
22	Internal corrosion preventive measures – Purification, alloying and heat treatment	15.09.2025		
23	External corrosion preventive measures: metal anodic coating.	18.09.2025		
24	Cathodic coating & **DCS**	18.09.2025		
25	**Unit-4 Engineering Materials**: Natural occurrence of metals – minerals, ores of iron, aluminum and copper, gangue (matrix), flux, slag,	19.09.2025		
26	metallurgy – brief account of general principles of metallurgy(a).Crushing and grinding (b) Concentration of ore (Levigation),Froth flotation,Magnetic separation.	20.09.2025		
27	(c) Extraction(Roasting and calcinations & smelting).	22.09.2025		
28	(d) Refining (Electrorefining, zone refining)& **DCS**.	25.09.2025		
29	Extraction of - iron from haematite ore using a blast furnace along with reactions.	25.09.2025		
30	Alloys – definition, purposes of alloying.	26.09.2026		
31	Ferrous alloys (Invar steel), Non-ferrous alloys (Simple Brass & Bronzes) with properties and applications	27.09.2026		
32	Nichrome, Duralumin,Magnelium with properties and applications.& **DCS**	29.09.2025		
33	**Unit-5 Water**: Classification of soft and hard water based on soap test, salts causing water hardness, Cause of poor lathering of soap in hard water, units of hardness(mg/L and ppm), simple numerical on water hardness	03.10.2025		
34	Problems caused by the use of hard water in boilers (scale and sludge, foaming and priming, corrosion.)& **DCS**	04.10.2025		
35	water softening techniques- i) zeolite process	06.10.2025		
36	ii). Municipal water treatment (in brief only) – sedimentation, coagulation,filtration, sterilization	09.10.2025		
37	Properties of water used for human consumption for drinking and cooking purposes from any water sources and Indian standard specification of drinking water & **DCS**	09.10.2025		
38	***Class test II***	13.10.2025		

Assignments:

Assignments	Contents of syllabus covered	Proposed Date slot	Actual Date	Remarks
A-1	Atomic Structure, Chemical Bonding and Solutions, Electrochemistry and Corrosion and Engineering Materials	11.09.2025 / 26.10.2025		
A-2	Whole syllabus: Solved guess question paper	30.10.2025 /25.11.2025		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual Date	Remarks
CT-I	30% of the syllabus	11.09.2025		
CT-II	Next 30% of the syllabus	13.10.2025		
House Test	80% of the syllabus	2nd week of November 2025		

Signature of Teacher

(Swati Bhardwaj)

HOD, AS & H

(Aman Saini)

Lab Plan
(Syllabus Coverage Practical: Applied Chemistry)

Exp. No.	Name of experiment	Proposed Date (G1 & G2)	Actual Date (G1 & G2)	Remarks
1	Preparation of standard solution of oxalic acid.	11-08-2025& 12-08-2025		
2	To determine strength of solution by titrating against standard oxalic acid solution using phenolphthalein as indicator.	18-08-2025& 19-08-2025		
3	Experimental verification of Faraday's first law of electrolysis using copper sulfate solution and copper electrode. OR To construct and measure emf of ElectroChemical Cell(Daniel cell)	25-08-2025& 26-08-2025		
4	Iodometric estimation of Copper in the given Copper ore using standard Hypo solution. OR To determine the percentage of Iron present in the given Haematite ore by standard Potassium Permanganate solution.	08-09-2025& 09-09-2025		
5	Estimation of total hardness of water using standard EDTA solution and using Eriochrome black-T (solochrome black-T) indicator and approximately neutral buffer solution (pH range 7-11). OR To estimate total alkalinity of a given water sample by titrating it against standard Sulphuric acid.	15-09-2025& 16-09-2025		
6	To estimate moisture in a given coal sample gravimetrically.	22-09-2025& 23-09-2025		
7	To estimate ash in a given coal sample gravimetrically.	13-10-2025& 14-10-2025		
8	To determine viscosity of given lubricating oil by Redwood viscometer.	27-10-2025& 28-10-2025		

Signature of Teacher

(Swati Bhardwaj)

HOD, AS & H

(Aman Saini)

LESSON PLAN

Program Name	DIPLOMA IN CIVIL ENGG./ECE
Course/Subject Name	Communication Skills In English
Course/Subject Code	HS 101
Course/Subject Coordinator Name	Renu Patial

Evaluation scheme

S.No.	subject Name	study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Communicatio n Skills in English	2(Th)+1(DCS)+ 2(Pr.)	40	40	60	60
Reference books:			(1) The Functional Aspects of Communication Skills			
			(2) H. G Publications English Grammar			
			(3) English & Comm. Skills-I & II by Eagle Publications			
			(4) General English By Lucent			

Course Outcomes: After the completion of the course the students will:

CO1	Develop basic speaking and writing skills including proper usage of language and vocabulary so that they can become highly confident and skilled speakers writers.
CO2	Be informed of the latest trends in basic verbal activities such as presentation facing interviews and other forms of communication.
CO3	Also Develop Skill of group presentation and communication in team.
CO4	Develop Non-Verbal Communication such as proper use of body language and gesture.

Teaching Plan:

S.N	Name of topic	Proposed Date	Actual date	Remark s
1	**Unit-1 Communication: Theory and Practice Introduction**	08,/08/25		
2	Basics of communication,Introduction meaning and definition, process of communication etc.	13/08/25		
3	Types of Communication: Formal & Informal, Verbal,Non-Verbal and written Barriers to effective communication.	14/08/25		
4	7Cs for effective communication(Consideration, concrete,concise, clear,complete, correct, courteous)	20/08/25		
5	Art of effective communication, (Choosing words, Voice,Modulation,Clarity, Time, Simplification of Words and Technical Communication.	21/08/25		
6	**Unit-2 Soft Skills For Professional Excellence:** Introduction: Soft Skills and Hard skills Importance of soft skills	22/08/25		
7	Life Skills,Self Awareness and self analysis, Adaptability, resilience, emotional intelligence and empathy etc.	27/08/25		
8	**Unit- 3 Reading Comprehension Section: Short Stories 1.** The Gift Of Magi	29/08/25		
9	The Gift Of Magi	03/09/25		
10	2.Uncle Podger Hangs a Picture	04/09/25		
11	Uncle Podger Hangs a Picture	05/09/25		

12	**Section :2 Poetry** 1.Night Of the Scorpion	10/09/25		
13	1.Night Of the Scorpion	11/09/25		
14	2.Stopping By Woods On A Snowy Evening	12/09/25		
15	Stopping By Woods On A Snowy Evening	17/09/25		
16	3. Where Mind Is without fear	18/09/25		
17	**Unit-4. Professional writing** The Art of précis writing	19/09/25		
18	The Art of Precis Writing	24/09/25		
19	Letters: Business and Personal	25/09/25		
20	Letters: Business and Personal	26/09/25		
21	Letters: Business and Personal	01/10/25		
22	Drafting e-mail	03/10/25		
23	Drafting Notices	09/10/25		
24	Minutes Of Meeting	15/10/25		
25	Minutes Of Meeting	16/10/25		
26	**Unit -5 Vocabulary and Grammar** Glossary of administrative terms(Hindi and English)	17/10/25		
27	One-word substitution	22/10/25		
28	One-word substitution	24/10/25		
29	Idioms and phrases	29/10/25		
30	Idioms and phrases	30/10/25		

31	Parts of Speech	31/10/25		
32	Parts of Speech	06/11/25		
33	Parts of Speech	07/11/25		
34	Parts of Speech	12/11/25		
35	Tenses	13/11/25		
36	Tenses	14/11/25		
37	Active and Passive Voice	19/11/25		
38	Active and Passive voice	20/12/25		
39	Active and Passive Voice	21/11/25		
40	Active and Passive Voice	21/12/25		
41	Punctuation.	26/12/25		
42	Punctuation.	26/12/25		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed Date	Actual date	Remarks
A-1	Communication and Soft Skills			
A-2	Reading Comprehension			

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual date	Remarks
CT-I	30% of the syllabus			
CT-II	Next 30% of the syllabus			
House Test	80% of the syllabus			

Lab Plan(101):

ic Month	Name of Practical	Actual Date		Remarks
		G-A	G-B	
AUG /SEP	**Unit-1 listening Skills:** Listening process and practice, introduction to recorded lectures, poems, interviews and speeches, listening tests.			
SEP /OCT	**Unit-2 introduction to phonetics** 1. Sounds: Consonant, Vowel, Diphthongs etc. transcription of words(IPA) Syllable Division 2. Words , Stress, Intonation, Voice Modulation etc.			
NOV /DEC	**Unit-3 Speaking Skills** Standard and Formal speech Group Discussion Oral Presentation Public Speaking ,Business presentation etc. Conversation Practice Role playing Mock Interview			

Signature of Teacher

Signature of HOD

DEPARTMENT OF APPLIED SCIENCES & HUMANITIES

LESSON PLAN

Academic Year	2024-25
Semester	1st
Course Code	ES101
Course Title	ENGINEERING GRAHICS
Prerequisties	NIL
Course Category	ES
Name of Faculty	ER. Harnem singh
Semester Start & End Dates	08/8/25 to 26/11/25
Credits	1.5

STUDY AND EVALUATION SCHEME

Sr. No.	Name of the Subject	L	DCS	P	Internal Assessment			External Assessment					Total Marks
					Th	Pr	Total	Th	Hrs	Pr	Hrs	Total	
3.2	Engineering Drawing-II	-	1	3	-	40	40	60	3	-	-	60	10

Subject Details:

Day	Unit & Topic of Discussion	Topic Details	Delivery Metho
Unit 1. Introduction to Engineering Drawing			
Day 1	Introduction	Drawing Instruments and supporting materials: method to use them with applications.	Chalk & Talk
Day 2	Types of lines	Convention of lines and their applications. Write alphabets and numerical in 7:4 scale (Vertical only)	Chalk & Talk

			narks
Day 3	Dimensioning techniques	as per SP-46:2003 – types and applications of chain, parallel and coordinate dimensioning.	Chalk & Talk
Day 4	Scales	Representative Fractions – reduced, enlarged and full size scales; Engineering Scales such as plain and diagonal scale	Chalk & Talk
Day 5		Representative Fractions – reduced, enlarged and full size scales; Engineering Scales such as plain and diagonal scale	Chalk & Talk
Day 6		Representative Fractions – reduced, enlarged and full size scales; Engineering Scales such as plain and diagonal scale	Chalk & Talk
Day 7		Representative Fractions – reduced, enlarged and full size scales; Engineering Scales such as plain and diagonal scale	Chalk & Talk
Day 8		Representative Fractions – reduced, enlarged and full size scales; Engineering Scales such as plain and diagonal scale	Chalk & Talk
DAY 9		**CLASS TEST- I (4th WEEK OF SEPTEMBER, 2025)**	
		Unit 2 : Orthographic projection (First Angle Projection)	
Day 10	Orthographic projection (First Angle Projection)	Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk
Day 11		Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk
Day 12		Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk
Day 13		Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk
Day 14		Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk
Day 15		Orthographic, perspective, isometric and oblique: concept and applications.	Chalk & Talk

CLASS TEST- II (4th WEEK OF OCTOBER, 2025

Unit 3 Isometric projection

Day 17	Isometric projection	Introduction to isometric projections. Isometric scale and Natural scale.Isometric view and isometric projection. Illustrative problems related to objects containing lines, circles and arcs shape only. Conversion of orthographic views into isometric view/projection.	Chalk & Talk
Day 18		Introduction to isometric projections. Isometric scale and Natural scale. Isometric view and isometric projection. Illustrative problems related to objects containing lines, circles and arcs shape only. Conversion of orthographic views into isometric view/projection.	Chalk & Talk
Day 19		Introduction to isometric projections. Isometric scale and Natural scale. Isometric view and isometric projection. Illustrative problems related to objects containing lines, circles and arcs shape only. Conversion of orthographic views into isometric view/projection.	Chalk & Talk
Day 20		Introduction to isometric projections. Isometric scale and Natural scale. Isometric view and isometric projection. Illustrative problems related to objects containing lines, circles and arcs shape only. Conversion of orthographic views into isometric view/projection.	Chalk & Talk
Day 21		Introduction to isometric projections. Isometric scale and Natural scale. Isometric view and isometric projection. Illustrative problems related to objects containing lines, circles and arcs shape only. Conversion of orthographic views into isometric view/projection.	Chalk & Talk
DAY 22	HOUSE TEST (2nd WEEK OF NOVEMBER, 2025)		

UNIT- 4 Free Hand Sketches of engineering elements

Day 23		Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, wash- er, Locking arrangements. Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper).	Chalk & Talk
Day 24		Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, wash- er, Locking arrangements. Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper).	Chalk & Talk

UNIT 5: Computer aided drafting interface

Day 25		Computer Aided Drafting: concept. Hardware and various CAD software available. System requirements and Understanding the interface.	Using CAD Software

Lab Plan: Sports and Yoga ECE

Sr. No.	Name of Contents	Proposed date		Actual date		Remarks
		G-I	G-II	G-I	G-II	
1	**Introduction to Physical Education.** Meaning & definition of Physical Education. Aims & Objectives of physical Education. Changing trends in Physical Education	13/08/25	12/08/25			
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, Dhayanchand Award, Rajiv Gandhi Khel Ratna Award etc.)	20/08/25	19/08/25			
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 Though Lifestyle Change. Concept of positive Lifestyle.	27/08/25	26/08/25			
4	**Fundamentals of Anatomy & Physiology in physical Education, Sports and yoga.** Define anatomy, Physiology & Its importance. Effect of exercise on the fuctioning of various body system. (Circulatory system, Respi- ratory system. Neuro-Muscular system etc.)	03/09/25	02/09/25			
5	**Kinesiology, Biomechanics & sports.** Meaning & Importance of Kinesiology & Biomechancis in Physical Edu. & sports. Friction and its effects in sports.	10/09/25	09/09/25			
6	**Postures.** Meaning and concept of Postures. Casuses of Bad Posture. Advantages & Disadvantages of weight training. Concept & advantages of correct Posture. Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, ky- Phosis, Bow legs and Scoliosis. Corrective measures for Postural Deformities.	17/09/25	16/09/25			
7	**Yoga.** Meaning & Importance of Yoga. Elements of Yoga. Introduction - Asanas, Pranayama, Meditation & Yogic Kriyas. Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Sha- Shankasana). Relaxation Techniques for imporving concentration Yognidra.	24/09/25	23/09/25			
8	**Yoga & Lifestyle.** Asanas as preventive measures. Hypetension: Tedasana, Vajrasana, Pravan Muktasana, Ardha Chakrasana, Bhujagasana, sharasana. Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh matsyendrasana, Matsyendrasana. Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, shalabhasana, Bhujangasana.	01/10/25	30/09/25			

	Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Kuktasana, Ardh Matsyendrasana. Asthema: procedure, Benefits & Contraindications for suhkasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana.	8/10/25	14/10/25			
0	**Taining and Planning in Sports.** Meaning Of Training. Warming up and limbering down. Skill, Technique & style. Meaning and Objectives of Planning. Tournamet - Knock-Out, League/Round Robin & combination	15/10/25	21/10/25			
11	**Psychology & Sports.** Definition & Importance of psychology in physical Edu. & sports. Define & Differentiate Between Growth & Devolopment Adolescent Problems & Their Management. Emotion: Concept, Type & Controlling of emotions. Meaning, concept & types of Aggressions in sports. Psychological benefits fo exercise. Anxiety & Fear and its effects on Sports Performance. Motivation, its types & techniques. Understanding Stress & Coping Strategies.	22/10/25	28/10/25			
12	**Doping.** Meaning and Concept of Doping. Prohibited substance & methods. Side Effects of Prohibited Substances	29/10/25	04/11/25			
13	**Sports Medicine:** First Aid. - Defination, Aims & Objectives sports injuries: Classification, Causes & Prevention. Management of Injuries: Soft Tissue Injuries and Bone & Joint Injuries.	19/11/25	18/11/25			
14	**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. Specification of Play fields and Related Sports Equipment. Important Taurnaments and Venues. Sports Personalities. Proper Sports Gear and its Importance.	26/11/25	25/11/25			

Subject Teacher

Ritu Sharma,

HOD

Lesson Plan/Lab Plan (Carpentry shop)

Trade : ECE | Session: AUG - DEC 2025

Sem: 1st

Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1	(i) Demonstration of different wood working tools/Machines.	G-I 12-8-25 13-8-25		
		G-II 19-8-25 20-8-25		
		G-III 26-8-25 27-8-25		
		G-IV 02-9-25 03-9-25		
		G-V 09-9-25 10-9-25		
2	(ii) Demonstration of different wood working processes like Plaining, Marking, Chiseling, grooving, truning of wood etc.	G-I 14-8-25		
		G-II 21-8-25		
		G-III 28-8-25		
		G-IV 04-9-25		
		G-V 11-9-25		
3	One Simple Job involving any one joint like mortise and tenon joint.	G-I 16-9, 17-9, 18-9-25		
		G-II 23/9, 24/9, 25-9-25		
		G-III 30-9-25 01-10-25		
		G-IV 08-10-25 09-10-25		
		G-V 14-10-25 15-10-25		
4	Practice on Dovetail, briddle and half lap joint etc.	G-I 21-10, 22-10, 23-10-25		
		G-II 28-10, 29-10, 30-10-25		
		G-III 04-11-25 06-11-25		
		G-IV 18-11, 19-11, 20-11-25		
		G-V 25-11, 26-11, 27-11-25		

Workshop Instr. (Tek Singh)

Foreman Instr. (Naresh Kumar)

Workshop Supdt.

HOD
App. Sci.& Hum.

Lesson Plan/Lab Plan (Electrical shop)

Trade : ECE | Session: AUG - DEC 2025

Sem: 1st

Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1	(i) Demonstration of advance power tools, Pneumatic tools, Electrical wiring tools and accessories.	G-II 12/8, 13/8		
		G-III 19/8, 20/8		
		G-IV 26/8, 27/8		
		G-V 02/9, 03/9		
		G-I 09/9, 10/9		
2	(ii) Tools for cutting and drilling (iii) Demonstration of measurement of current, voltage, Power and energy.	G-II 14/8		
		G-III 21/8		
		G-IV 28/8		
		G-V 04/9		
		G-I 11/9		
3	Practice of simple lamp circuit (iv) One lamp controlled by one switch by surface conduit wiring. (v) Lamp Circuits- Connection of lamp and socket by seprate switches.	G-II 16/9, 17/9, 18/9		
		G-III 23/9, 24/9, 25/9		
		G-IV 30/9, 01/10		
		G-V 08/10, 09/10		
		G-I 14/10, 15/10		
4	(vi) Connection of Fluorescent lamp/tube light. (vii) Simple Lamp Circuits install bedroom lighting (viii) Simple lamp Circuit install stair case wiring.	G-II 21/10, 22/10, 23/10		
		G-III 28/10, 29/10, 30/10		
		G-IV 04/11, 06/11		
		G-V 18/11, 19/11, 20/11		
		G-I 25/11, 26/11, 27/11		

Workshop Instr.

Foreman Instr. (Naresh Kumar)

Workshop Supdt.

HOD
App. Sci.& Hum.

Lesson Plan/Lab Plan (Welding Shop)

Trade : ECE		Session: AUG- DEC 2025		
Sem: 1st				
Sr. No	Name of Practical	Proposed Date	Actual Date	Remarks
1	Demonstraion of different welding tools/machines	G-V 12/08, 13/8, 14/8/25		
		G-I 19/8, 20/8, 21/8/25		
		G-II 26/8, 27/8, 28/8/25		
		G-III 02/9, 03/9 04/9/25		
		G-IV 09/09, 10/9 11/9/25		
2	Demonstraion on Arc Welding, Gas Welding, MIG, MAG Welding, gas cutting and rebuilding of broken parts with welding	G-V 16/9, 17/9, 18/9/25		
		G-I 23/9, 24/9, 25/9/25		
		G-II 30/9, 01/10/25		
		G-III 08/10/25, 09/10/25		
		G-IV 14/10, 15/10/25		
3	One Simple job involving butt and lap joint	G-V 21/10, 22/10, 23/10/25		
		G-I 28/10, 29/10, 30/10/25		
		G-II 04/11, 06/11/25		
		G-III 18/11, 19/11, 20/11/25		
		G-IV 25/11, 26/11, 27/11/25		

W/shop Instr. Foreman Instr. HOD App. Sci.& Hum. Workshop Supdt.