LESSON PLAN

Program Name	ELTX & COMM ENGG.
Course/Subject Name	FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGG.
Course/Subject Code	ES 104
Course/Subject Coordinator Name	ASHOK KUMAR

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	FEEE & FEEE LAB	TH [3+1(DCS) + 2 (Lab)	40	40	60	60

Reference books

1. Ritu Sahdev, Basic Electrical Engineering, Khanna Publishing House, 2018.
2. Mittle and Mittal, Basic Electrical Engineering, McGraw Education, New Delhi, 2015, ISBN : 978-0-07-0088572-5.
3. Saxena, S. B. Lal, Fundamentals of Electrical Engineering, Cambridge University Press, latest edition ISBN : 9781107464353.
4. Theraja, B. L., Electrical Technology Vol – I, S. Chand publications, New Delhi, 2015, ISBN: 9788121924405.
5. Theraja, B. L., Electrical Technology Vol – II, S. Chand publications, New Delhi, 2015, ISBN: 9788121924375.
6. Jegathesan, V., Basic Electrical and Electronics Engineering, Wiley India, New Delhi, 2015, ISBN : 97881236529513.
7. Sedha, R.S., A text book of Applied Electronics, S.Chand ,New Delhi, 2008, ISBN-13: 978-8121927833.
8. Malvino, Albert Paul, David, Electronics Principles, McGraw Hill Eduction, New Delhi,2015, ISBN-13: 0070634244-978.
9. Mehta, V.K., Mehta, Rohit, Principles of Electronics, S. Chand and Company, New Delhi, 2014, ISBN-13-9788121924504.
10. Bell Devid, Fundamental of Electronic Devices and Circuits, Oxford University Press, New Delhi 2015 ISBN : 9780195425239.

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

- To express different elements and concepts of electrical engineering field
- To understand basic concepts of various active and passive electronic components, Signals, Op-Amp
- To use Digital Electronics and their applications

Teaching Plan:

Lecture No.	Topic Covered	Proposed date	Actual Date	Remarks
1	Passive Active Components	27-01-2026		
2	Passive Active Components	28-01-2026		
3	Resistances, Capacitors, Inductors, Diodes, Transistors, FET, MOS and CMOS and their Applications	31-01-2026		
4	Resistances, Capacitors, Inductors, Diodes, Transistors, FET, MOS and CMOS and their Applications	02-02-2026		
5	Signals: DC/AC, voltage/current, periodic/non-periodic signals, average, rms, peak values, different types of signal waveforms	03-02-2026		
6	Signals: DC/AC, voltage/current, periodic/non-periodic signals, average, rms, peak values, different types of signal waveforms	04-02-2026		
7	Signals: DC/AC, voltage/current, periodic/non-periodic signals, average, rms, peak values, different types of signal waveforms	07-02-2026		
8	Ideal/non-ideal voltage/current sources, independent/dependent voltage current sources.	09-02-2026		
9	Ideal/non-ideal voltage/current sources, independent/dependent voltage current sources.	10-02-2026		
10	Operational Amplifiers-Ideal Op-Amp,	11-02-2026		
11	Operational Amplifiers-Ideal Op-Amp	16-02-2026		
12	Practical op amp, Open loop and closed loop configurations	17-02-2026		
13	Practical op amp, Open loop and closed loop configurations	18-02-2026		
14	Application of Op-Amp as amplifier, adder, differentiator and integrator.	21-02-2026		
15	Application of Op-Amp as amplifier, adder, differentiator and integrator	23-02-2026		
16	Introduction to Boolean Algebra	24-02-2026		
17	Introduction to Boolean Algebra	25-02-2026		
18	Electronic Implementation Gates-Functional Block Approach, Storage elements-Flip Flops, Boolean Operations	28-02-2026		
19	Electronic Implementation ,Gates-Functional Block Approach, Storage elements-Flip Flops Boolean Operations	02-03-2026		
20	Functional block approach, Counters: Ripple, Up/down and decade, Introduction to digital IC Gates (of TTL Type	03-03-2026		
21	EMF, Current, Potential Difference	04-03-2026		
22	EMF, Current, Potential Difference	07-03-2026		
23	Power and Energy; M.M.F, magnetic force, permeability, hysteresis loop	09-03-2026		
24	Power and Energy; M.M.F, magnetic force, permeability, hysteresis loop	10-03-2026		
25	reluctance, leakage factor and BH curve; Electromagnetic induction	11-03-2026		
26	reluctance, leakage factor and BH curve; Electromagnetic induction	16-03-2026		
27	Faraday's laws of electromagnetic induction, Lenz's law; Dynamically induced emf	17-03-2026		

	Faraday's laws of electromagnetic induction, Lenz's law; Dynamically induced emf			
29	Statically induced emf; Equations of self and mutual inductance; Analogy between electric and magnetic circuits.	18-03-2026		
30	Statically induced emf; Equations of self and mutual inductance; Analogy between electric and magnetic circuits.	21-03-2026		
31	Cycle, Frequency, Periodic time, Amplitude, Angular velocity	23-03-2026		
32	Cycle, Frequency, Periodic time, Amplitude, Angular velocity	24-03-2026		
33	RMS value, Average value, Form Factor Peak Factor, impedance	25-03-2026		
34	RMS value, Average value, Form Factor Peak Factor, impedance	28-03-2026		
35	phase angle, and power factor	30-03-2026		
36	Mathematical and phasor representation of alternating EMF and current	31-03-2026		
37	Mathematical and phasor representation of alternating EMF and current	01-04-2026		
38	Voltage and Current relationship in Star and Delta connection	04-04-2026		
39	A.C in resistors, inductors and capacitors; A.C in R-L series	06-04-2026		
40	A.C in resistors, inductors and capacitors; A.C in R-L series	07-04-2026		
41	R-C series, R-L-C series and parallel circuits; Power in A. C. Circuits, power triangle.	08-04-2026		
42	R-C series, R-L-C series and parallel circuits; Power in A. C. Circuits, power triangle.	13-04-2026		
43	R-C series, R-L-C series and parallel circuits; Power in A. C. Circuits, power triangle.	14-04-2026		
44	phase angle, and power factor	15-04-2026		
45	Statically induced emf; Equations of self and mutual inductance; Analogy between electric and magnetic circuits.	18-04-2026		
46	Statically induced emf; Equations of self and mutual inductance; Analogy between electric and magnetic circuits.	20-04-2026		
47	General construction and principle of core and shell type of transformers	21-04-2026		
48	General construction and principle of core and shell type of transformers	22-04-2026		
49	EMF equation and transformation ratio of transformers General construction and principle of core and shell type of transformers	25-04-2026		
50	Mathematical and phasor representation of alternating EMF and current	27-04-2026		
51	Voltage and Current relationship in Star and Delta connection	28-04-2026		
52	EMF equation and transformation ratio of transformers	29-04-2026		
53	EMF equation and transformation ratio of transformers	02-05-2026		
54	EMF equation and transformation ratio of transformers	04-05-2026		
55	Auto transformers; Basic principle of Electromechanical energy conversion	05-05-2026		
56	Auto transformers; Basic principle of Electromechanical energy conversion	06-05-2026		
57	Auto transformers; Basic principle of Electromechanical energy conversion	11-05-2026		
		12-05-2026		

LESSON PLAN

Program Name	DIPLOMA (Electronics Engg.)
Course/Subject Name	Introduction to IT Systems
Course/Subject Code	ES 102
Course/Subject Coordinator Name	Arti Sharma

Evaluation scheme

S.No.	Subject Name	Study Scheme Hours/week	Marks in evaluation scheme	
			Internal Assessment	External Assessment
1.	Introduction to IT Systems	2	40	60
Reference books			i. R.S. Salaria, Computer Fundamentals, Khanna Publishing House.	
			ii. Fundamentals of Computer by V Rajaraman; Prentice Hall of India Pvt. Ltd.	
			iii. Information Technology for Management by Henery Lucas, Tata McGraw Hills, New Delhi.	
			iv. Computer Fundamentals Architecture and organization by B Ram, revised Edition, New Age International Publishers, New Delhi.	

Course Outcomes:

After the completion of the course the students will be able to comfortably work on computers, install and configure operating systems, assemble a PC and connect it to various external devices, create documents, create worksheets, protect information and computers from basic abuses and attacks.

Teaching Plan:

Lecture No.	Name of topic	Proposed Date	Actual date	Remarks
	Unit-1 Basic of Computer Systems			
1	Computer a brief introduction with the help of Block Diagram of Computer.	27/01/2026		
2	General understanding of hardware components : Input components.	30/01/2026		
3	General understanding of hardware components : Output components.	03/02/2026		

4	General understanding of hardware components : Memory components.	06/02/2026		
	Unit-2 Software Concepts			
5	Software and its types.	10/02/2026		
6	Operating System and its types.	13/02/2026, 17/02/2026		
7	Functions of Operating System, Booting the system (Cold and warm).	20/02/2026		
8	Revision.	24/02/2026		
	Unit-3 Internet Skills			
9	Understanding the terminology of the internet, web browser.	27/02/2026		
10	Search Engine, word wide web.	03/03/2026		
11	Network and its types.	06/03/2026		
12	Awareness about the government portals i.e. national portals, state portals and institution portals.	10/03/2026, 13/03/2026		
	Unit-4 Working with MS-Word			
13	Introduction to word processors, i.e. MS - Word	17/03/2026		
14	File management, creating a new document, saving a document.	20/03/2026		
15	Printing a document, Editing a document.	24/03/2026		
16	Use of Home, Insert, Design layout ribbons.	27/03/2026		
17	Revision.	31/03/2026		
	Unit-5 Working with MS-Excel			
18	Introduction to spreadsheets, i.e. MS- Excel.	07/04/2026		
19	Working with spreadsheets, worksheets.	10/04/2026		
20	Entering data into cells, merging and splitting of cells.	17/04/2026,		
21	Usage of simple functions like sum average, min max, percentage.	21/04/2026		
22	Round, floor, ceiling, conditional formatting.	24/04/2026		
23	Revision.	28/04/2026		
	Unit-6 Information Security			
24	Concept of online frauds.	05/05/2026		
25	Threats of online crime.	08/05/2026		
26	Virus attacks, Use of antivirus.	12/05/2026, 15/05/2026		
27	Revision	19/05/2026		
28	Revision	22/05/2026		
29	Revision	26/05/2026		

Department of Applied Sciences & Humanities
Dr.B.R. Ambedkar Govt. Polytechnic Ambota
Distt. – Una (H.P.)

LESSON PLAN

Program Name	Electronics & Communication Engineering
Subject Name	Applied Mathematics-II
Subject Code	BS102
Semester	2nd
Subject Teacher Name	Sandeep Kumar

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	DCS	Th	Pr	Total	Th	Pr	Total
1.	Applied Mathematics-II	4	1	40	-	40	60	-	60
Reference Books		(v) B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, New Delhi, 40th Edition,2007							
		(vi) S.S. Sabharwal, Sunita Jain, Eagle Parkashan, Applied Mathematics, Vol. I & II, Jalandhar.							

Course Outcomes (COs)

CO – 1	To understand the students are expected to acquire necessary background in Determinants and Matrices so as to appreciate the importance of the Determinants are the factors that scale different parameterizations so that they all produce same overall integrals, i.e. they are capable of encoding the inherent geometry of the original shape.
CO – 2	Tounderstand cumulative effect of the original quantity or equation is the Integration.
CO – 3	The students are able to learn the coordinate geometry provides a connection between algebra and geometry through graphs of lines and curves.
CO – 4	Tell the difference between a resultant and a concurrent force to model simple physical problems in the form of a differential equation, analyze and interpret the solutions.

Teaching Plan

	Name of Topic	Proposed Date	Actual Date	Remarks
UNIT-1	Introduction of Determinants	27/01/2026		
Determinants and Matrices	Elementary properties of determinants up to 3rd order	29/01/2026 30/01/2026 30/01/2026 31/01/2026		
	Doubt Clearing Session	02/02/2026		
	Consistency of equations	03/02/2026		
	Crammer's rule	06/02/2026 06/02/2026 08/02/2026		

	Algebra of matrices	09/02/2026 10/02/2026		
	Inverse of a matrix	13/02/2026		
	Doubt Clearing Session	13/02/2026		
	Matrix inverse method to solve a system of linear equations in 3 variables.	14/02/2026 16/02/2026 17/02/2026 20/02/2026 20/02/2026		
UNIT-II **Integral Calculus**	Doubt Clearing Session	21/02/2026		
	Integration as inverse operation of differentiation	23/02/2026 24/02/2026		
	Simple integration by substitution	27/02/2026 27/02/2026 28/02/2026		
	Doubt Clearing Session	02/03/2026		
	Simple integrationby parts	03/03/2026 06/03/2026 06/03/2026		
	Simple integrationby parts	07/03/2025		
	Doubt Clearing Session	09/03/2026		
	Class Test-1 (As per HPTSB schedule)	10/03/2026		
	Simple integration by partial fractions	13/03/2026 13/03/2026		
	Use of formulae for solving problems where m and n are positive integers	14/03/2026 16/03/2026 17/03/2026		
	Doubt Clearing Session	20/03/2026		
	Applications of integration for Simple problem on evaluation of area bounded by a curve and axes	20/03/2026 23/03/2026 24/03/2026 27/03/2026 27/03/2026		
	Doubt Clearing Session	28/03/2026		
	Calculation of Volume of a solid formed by revolution of an area about axes.	30/03/2026 31/03/2026 03/04/2026		
	Doubt Clearing Session	04/04/2026		
	Equation of straight line in various standard forms (without proof)	04/04/2026		
	Class Test-2 (As per HPTSB schedule)	06/04/2026		

	separable method (simple problems).			

Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1	14/03/2026		
A-2	Unit-2	11/04/2026		
A-3	Unit-3	08/05/2026		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1	As per HPTSB Academic Schedule		
Class Test -2	Unit-2			
House Test - 1	Unit-1, Unit-2 and Unit-3			

(Signature of Teacher)

(Signature of HOD)

LESSON PLAN

Name of Branch	**Electronics & Comm. Engg.**
Course/Subject Name	**Engineering Mechanics**
Course/Subject Code	**ES106 & ES 112**
Course/Subject Coordinator Name	**Er. Harnem Singh**

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Engineering Mechanics Theory & Engineering Mechanics lab	TH [3+1(DCS) + 2 (Lab)	40	40	60	60
Reference books			(i)D.S. Bedi, Engineering Mechanics, Khanna Publications, New Delhi (2008)			
			(ii) Khurmi, R.S., Applied Mechanics, S. Chand & Co. New Delhi.			
			(iii) Bansal R K, A text book of Engineering Mechanics, Laxmi Publications.			
			(iv) Ramamrutham, Engineering Mechanics, S. Chand & Co. New Delhi.			
			(v)Ram, H. D.; Chauhan, A. K., Foundations and Applications of Applied Mechanics, Cam-bridge University Press.			

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

CO1	Identify the force systems for given conditions by applying the basics of mechanics.
CO2	Determine unknown force(s) of different engineering systems.
CO3	Apply the principles of friction in various conditions for useful purposes
CO4	Find the centroid and centre of gravity of various components in engineering systems.

Teaching Plan:

L. No.	Topic Covered	Proposed Date	Actual Date	Remarks
1	**Unit – I Basics of mechanics and force system** Significance and relevance of Mechanics, Applied mechanics, Statics, Dynamics.	27/1, 28/1/2026		
2	Space, time, mass, particle, flexible body and rigid body. Scalar and vector quantity, Units of measurement (SI units)	31/1		
3	Force – unit, representation as a vector and by Bow's notation, characteristics and effects of a force, Principle of transmissibility of force.	2/2, 3/2		
4	Force system and its classification	4/2		
5	Resolution of a force - Orthogonal components of a force, moment of a force, Varignon's Theorem.	7/2		
6	Composition of forces – Resultant, analytical method for determination of resultant for concur- rent, non-concurrent and parallel co-planar force systems	9/2, 10/2		
7	Law of triangle, parallelogram and polygon of forces.	11/2		
8	**Unit– II Equilibrium:** Equilibrium and Equilibrant, Free body and Free body diagram, Analytical and graphical meth	16/2		
9	Lami's Theorem – statement and explanation, Application for various engineering	17/2, 18/2		
10	Types of beam, supports (simple, hinged, roller and fixed) and loads acting on beam (vertical point load, uniformly distributed load),	21/2, 23/2		
11	Beam reaction for cantilever, simply supported beam with or without overhang – subjected to combination of Point load and uniformly distributed load	24/2, 25/2		
12	Beam reaction graphically for simply supported beam subjected to vertical point loads	28/2		
13	Beam reaction for cantilever, simply supported beam with or without overhang – subjected to combination of Point load and uniformly distributed load	2/3, 3/3		
14	**Unit– III Friction**: Friction and its relevance in engineering,	7/3		
15	Types and laws of friction, limiting equilibrium, limiting friction, co-efficient of friction,	9/3, 10/3		

16	Angle of friction, angle of repose, relation between co-efficient of friction and angle of friction	4/3/26		
17	Equilibrium of bodies on level surface subjected to force parallel and inclined to plane.	16/3, 17/3/26		
18	Equilibrium of bodies on inclined plane subjected to force parallel to the plane only.	18/3/26		
19	Equilibrium of bodies on level surface subjected to force parallel and inclined to plane. Equilibrium of bodies on inclined plane subjected to force parallel to the plane only.	23/3, 24/3/26		
20	Equilibrium of bodies on level surface subjected to force parallel and inclined to plane. Equilibrium of bodies on inclined plane subjected to force parallel to the plane only.	25/3/26, 28/3/26		
21	NUMERICAL PROBLEMS ON CHAPTER 1(REVISION)	30/3/26		
22	NUMERICAL PROBLEMS ON CHAPTER 2(REVISION)	31/3/26		
23	NUMERICAL PROBLEMS ON CHAPTER 3(REVISION)	1/4/26		
24	**Unit– IV Centroid and centre of gravity**			
25	Centroid of geometrical plane figures (square, rectangle, triangle)	4/4/26		
26	Centroid of geometrical plane figures (square, rectangle, triangle, circle, semiCIRCLE)	6/4/26		
27	Centroid of composite figures composed of not more than two geometrical figures.	7/4/26		
28	Centroid of composite figures composed of not more than two geometrical figures.	8/4/26		
29	Centroid of composite figures composed of not more than two geometrical figures. Centre of Gravity of simple solids (Cube cuboid, cone, cylinder, sphere, hemisphere)	13/4/2026		
30	Centroid of composite figures composed of not more than two geometrical figures. Centre of Gravity of simple solids (Cube cuboid, cone, cylinder, sphere, hemisphere)	18/4/26		
31	Centroid of composite figures composed of not more than two geometrical figures. Centre of Gravity of simple solids (Cube cuboid, cone, cylinder, sphere, hemisphere)	29/4/26		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	2nd week of March 2026		
CT-II	Next 30% of the syllabus	2nd week of April 2026		
House Test	80% of the syllabus	2nd week of May 2026		

Lab Plan:

Exp. No.	Name of experiment	Actual date		Remarks
		G-1	G-2	
1	To study various equipments related to Engineering Mechanics.			
2	To find the M.A., V.R., Efficiency and law of machine for Differential Axle and Wheel.			
3	To find the M.A., V.R., Efficiency and law of machine for Simple Screw Jack.			
4	Derive Law of machine using Worm and worm wheel.			
5	Determine resultant of concurrent force system applying Law of Polygon of forces using forcetable.			
6	Determine resultant of concurrent force system graphically.			
7	Determine resultant of parallel force system graphically.			
8	Verify Lami's theorem.			
9	Study forces in various members of Jib crane.			
10	Determine support reactions for simply supported beam.			
11	Obtain support reactions of beam using graphical method..			
12	Determine coefficient of friction for motion on horizontal and inclined plane.			
13	Determine centroid of geometrical plane figure			

(Signature of Teacher)

(Signature of HOD)

LESSON PLAN

Program Name	**ECE**
Course/Subject Name	**Applied Physics-II**
Course/Subject Code	**BS-104 & 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-II & Applied Physics-II lab	TH [3+1(DCS) + 2 (Lab)	40	40	60	60
Reference books			(i) Concepts of Physics By H C Verma			
			(ii) Fundamental of Physics By Halliday/Resnick/Walker			
			(iii) Text Book of Physics for Class XII			

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

CO1	Describe waves and wave motion, periodic and simple harmonic motions and solve simple problems.
CO2	Explain ultrasonic waves and engineering, medical and industrial applications of Ultrasonic. Apply acoustics principles to various types of buildings for best sound effect.
CO3	Describe the refractive index of a liquid or a solid and will be able to explain conditions for total internal reflection.
CO4	Define capacitance and its unit, explain the function of capacitors in simple circuits, and solve simple problems.
CO5	Differentiate between insulators, conductors and semiconductors, and define the terms: potential, potential difference, electromotive force.
CO6	Express electric current as flow of charge, concept of resistance, measure of the parameters: electric current, potential difference, resistance.
CO7	Explain the operation of appliances like moving coil galvanometer, simple DC motors.
CO8	Illustrate the conditions for light amplification in various LASER and Laser based instruments and optical devices.
CO9	Appreciate the potential of optical fiber in fields of medicine and communication.

Teaching Plan:

L. No.	Topic Covered	Proposed Date	Actual Date	Remarks
1	**UNIT – 1: Wave motion and its applications-** Wave motion,	28/01/2026		
2	transverse and longitudinal waves with examples, Definitions of wavelength, frequency and wavelength and their	30/01/2026		
3	relationship DCS	31/01/2026		
4	Sound and light waves and their properties	02/02/2026		
5	Wave equation ($y = r \sin \omega t$) amplitude, phase, phase difference, Principle of superposition of waves and beat formation	04/02/2026		
6	Simple Harmonic Motion (SHM): definition, expression for, displacement, velocity	06/02/203		
7	DCS	07/02/2026		

8	Acceleration, time period, frequency of SHM, Free, forced and resonant vibrations and their examples.	11/02/2026		
9	Acoustics of buildings – reverberation, reverberation time, echo, noise, coefficient of absorption of sound	13/02/2026		
10	DCS	14/02/2026		
11	Methods to control reverberation time and their applications.	16/02/2026		
12	Ultrasonic waves – Introduction and properties, engineering and medical applications of ultrasonic.	18/02/2026		
13	**UNIT - 2: Optics** -Basic optical laws- reflection and refraction	20/02/2026		
14	DCS	21/02/2026		
15	Refractive index, Images and image formation by mirrors,	23/02/2026		
16	Lens and thin lenses, lens formula, power of lens, magnification	25/02/2026		
17	DCS	28/02/2026		
18	Total internal reflection, Critical angle and conditions for total internal reflection,applications of total internal reflection in optical fiber.	02/03/2026		
19	Optical Instruments- simple and compound microscope	04/03/2026		
20	Astronomical telescope in normal adjustment and their magnifying power	06/03/2026		
21	DCS	07/03/2026		
22	**UNIT - 3: Electrostatics-** Coulomb's law, unit of charge.	11/03/2026		
23	Electric field, Electric lines of force and their properties.	13/03/2026		
24	**DCS**	14/03/2026		
25	Electric flux, Electric potential and potential difference	16/03/2026		
26	Gauss's law.	18/03/2026		
27	Capacitor and its working, Capacitance and its units. Capacitance of a parallel plate capacitor	20/03/2026		
28	Series and parallel combination of capacitors (related numerical)	21/03/2026		
29	Dielectric and its effect on capacitance, dielectric break down	23/03/2026		
30	**UNIT - 4: Current Electricity-** Electric Current and its units, Direct and alternating current.	25/03/2026		
31	Resistance and its units, Specific resistance, Conductance, Specific conductance,	27/03/2026		
32	**DCS**	28/03/2026		
33	Heating effect of current, Electric power, Electric energy and its units (related numerical problems	30/03/2026		
34	Advantages of Electric Energy over other forms of energy.	01/04/2026		
35	**UNIT - 5: Electromagnetism-** Types of magnetic materials: dia, para and ferromagnetic with their properties.	04/04/2026		
36	DCS	06/04/2026		
37	Magnetic field and its units, magnetic intensity, magnetic lines of force, magnetic flux and units, magnetization	08/04/2026		
38	Lorentz force (force on moving charge in magnetic field), Force on current carrying conductor.	10/04/2026		
39	Moving coil galvanometer; principle, construction and working	11/04/2026		
40	**DCS**	13/04/2026		
41	Conversion of a galvanometer into ammeter and voltmeter	15/04/2026		
42	**UNIT - 6: Semiconductor Physics-**Energy bands in solids, Types of materials (insulator, semiconductor, conductor)	17/04/2026		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed date	Actual date	Remarks
CT-I	30% of the syllabus	3rd week of March 2025		
CT-II	Next 30% of the syllabus	3rd week of April 2025		
House Test	80% of the syllabus	2nd week of May2025		

Exp. No.	Name of experiment	Proposed date		Actual Date	
		G-1	G-2	G1	G2
1	To verify laws of reflection from a plane mirror/ interface.	28/01/2026	31/01/2026		
2	To verify laws of refraction (Snell's law) using a glass slab.	04/02/2026	07/02/2026		
3	To determine focal length and magnifying power of a convex lens.	11/02/2026	14/02/2026		
4	To verify Ohm's law by plotting a graph between current and potential difference.	18/02/2026	21/02/2026		
5	To verify laws of resistances in series and parallel combination.	25/02/2026	07/03/2026		
6	To verify Kirchhoff's laws using electric circuits.	18/03/2026	14/03/2026		
7	To find resistance of a galvanometer by half deflection method.	25/03/2026	28/03/2026		
8	To convert a galvanometer into an ammeter.	01/04/2026	04/04/2026		
9	To convert a galvanometer into a voltmeter.	08/04/2026	11/04/2026		

(Signature of Teacher)

(Signature of HOD)

LESSON PLAN

ProgramName	DIPLOMA (ECE)
Course/Subject Name	Environmental science
Course/SubjectCode	AU(102)
Course/SubjectCoordinatorName	Ms.Swati Bhardwaj

Evaluation scheme :

S.No.	SubjectName	Study Scheme (Hrs/Week)	Marks in evaluation scheme	
			Internal Assessment	External Assessment
			Theory	Theory
1.	Environmental Science	2hr (Th)	40	60

Reference books	(i) S.C.Sharma MP.Poonia, Environmental Studies, KhannaPublishingHouse, New Delhi.
	(ii) Environmental Science by Dr. Deepak Arora Edited by Shweta Khurana, Eagle Prakashan
	(iii)O.P.Gupta, Elements of Environmental Pollution Control, Khanna Publishing House, New Delhi
	(iv)Environmental Science By Mr. Aman Saini and Manoj Kumar ,Tru Edu. Publications

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

CO1	To solve various engineering problems applying ecosystem to produce eco – friendly products
CO2	To use relevant air and noise control methods to solve domestic and industrial problems.
CO3	To use relevant water and soil control method to solve domestic and industrial problems
CO4	To recognize relevant energy sources required for domestic and industrial applications
CO5	To Solve local solid and e-waste problems

Teaching Plan:

Lecture No.	Name of topic	Proposed Date	Actual date	Remarks
1	**Unit-1 Ecosystem** Structure of ecosystem, Biotic & Abiotic components Food chain and food web	27.01.2026		
2	Aquatic (Lentic and Lotic) and terrestrial ecosystem Carbon, Nitrogen, cycle	28.01.2026		
3	Sulphur, Phosphorus cycle	03.02.2026		
4	Global warming -Causes, effects, process GreenHouse Effect, Ozone depletion.	04.02.2026		
5	**Unit– 2 Air and, Noise Pollution** Definition of pollution and pollutant, Natural and, Biotic manmade sources of air pollution (Refrigerants, I.C., Boiler)	10.02.2026		
6	Air Pollutants: Types, Particulate Pollutants: Effects	11.02.2026		
7	Control of air pollution(Bag filter, Cyclone separator, Electrostatic Precipitator).	17.02.2026		
8	Gaseous Pollution Control: Absorber, Catalytic Converter, Effects of air pollution due to Refrigerants, I.C., Boiler	18.02.2026		
9	Noise pollution: sources of pollution, measurement of pollution level, Effects of Noise pollution, Noise pollution (Regulation and Control) Rules, 2000	24.02.2026		

Assignments:

Assignments	Contents of syllabus covered	Proposed date	Actual date	Remarks
A-1	Ecosystem , Air and, Noise Pollution,Water and Soil Pollution.	13.03.2026 /26.03.2026		
A-2	Renewable sources of EnergySolid Waste Management, ISO 14000 & Environmental Management.	24.04.2026 /21.05.2026		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual date	Remarks
CT-I	30% of the syllabus	11.03. 2026		
CT-II	Next 30% of the syllabus	08.04.2026		
House Test	80% of the syllabus	2nd week of May, 2026		

Signature of teacher
(Swati Bhardwaj)

HOD(AS & H)
(Aman Saini)

LESSON PLAN

Program Name	DIPLOMA (Electronics & Communication Engineering)
Course Subject Name	Introduction to IT Systems
Course Subject Code	ES 108
Course Subject Coordinator Name	SUSHIL KUMAR RANA

Evaluation scheme

S.No	Subject Name	Study Scheme Hours/week	Marks in evaluation scheme	
			Internal Assessment	External Assessment
1.	Introduction to IT Systems Lab	4	40	60
Reference books			i. R.S.Salaria, Computer Fundamentals, Khanna Publishing House.	
			ii. Ramesh Bangia, PC Software Made Easy-The PC Course Kit, Khanna Publishing House/	
			iii. IT Essentials PC Hardware and Software Companion Guide, Davis Anfinson and Ken Quamme. CISC Press Pearson Education	
			iv. PC Hardware and A+ Handbook, Kate J. Chase PHI (Microsoft)	

Course Outcomes:

After the completion of the course the students will be able to comfortably work on computers, install and configure operating systems, assemble a PC and connect it to various external devices, create documents, create worksheets, prepare presentations, protect information and computers from basic abuses/attacks.

	ntents of Syllabus Covered	Proposed Week		Actual Date		Remarks
		Group-I	Group-II	Group-I	Group-II	
	To identify the various hardware components of computer system.	29-01-26	31-01-26			
	Continue	30-01-26	02-02-26			
2	To assemble hardware components of Computer System.	05-02-26	07-02-26			
	Continue	06-02-26	09-02-26			
3	To install Windows OS on computer system.	12-02-26	16-02-26			
	Continue	13-02-26				
4	To study the various features offered on the desktop, creating new folder and new file on the desktop.	19-02-26	21-02-26			
	Continue	20-02-26				
5	To work on different web browsers (google chrome, internet explorer),setting up default homepage on browser and study the various settings available.	26-02-26	23-02-26			
	Continue	27-02-26				
6	To open search engines (google and yahoo) and search different information using the search engines. Creating an e-mail account.	05-03-26	28-02-26			
	Continue	06-03-26	02-03-26			
	Continue	12-03-26	07-03-26			
7	Visit various e-governance/digital India Portals and understanding the services offered	13-03-26	09-03-26			
	Continue	19-03-26	16-03-26			
	Continue	20-03-26	23-03-26			
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.	27-03-26	28-03-26			
	Continue	02-04-26	30-03-26			
	Continue	09-04-26	04-04-26			
	Continue	10-04-26	06-04-26			
9	Formatting a document, creating and editing tables, mail-merge.	16-04-26	13-04-26			
	Continue	17-04-26	18-04-26			
	Continue	23-04-26	20-04-26			
10	Working on MS EXCEL- Creating a worksheet in Excel. Copy, move and merge the cells and use various formatting features.	24-04-26	25-04-26			
	Continue	30-04-26	27-04-26			
	Continue	07-05-26	02-05-26			

	ntinue	08-05-26	04-05-26			
11	sing formula and functions prepare worksheet for storing subject marks of ten students and perform the following: Calculate the student wise total and average.	14-05-26	16-05-26			
	Calculate the subject wise total and average.Calculate the overall percentage and also individual percentage of the student.					
	Create a chart for the above.					
	Continue	15-05-26	18-05-26			
	Continue	21-05-26	23-05-26			
	Continue	22-05-26	25-05-26			

(Signature of Teacher)

(Signature of HOD)