

Department of Elex.& Comm. Engg

LESSON PLAN

Program Name	Diploma in Elex& Communication Engg.
Course/Subject Name	Nano Technology
Course/Subject Code	EEEOE302
Course/Subject Co-ordinator Name	Mrs. Aradhana

Evaluation Scheme

Sr. no.	Subject Name	Study scheme (Hrs/Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1	Digital communication	Theory-4/week	40		60	
Reference Books		E- reference				
		1. NPTEL course contents links				
		2. https://nanohub.org/groups/education				

Course Outcomes (COs)

C.O. 1	To provide basic knowledge of nanoscience & nanotechnology.
C.O.2	To make students familiar with nanoelectronic devices
C.O.3	To make students familiar with Applications of nanomaterials.

Teaching Plan

S.N	Name of Topic	Proposed Date	Actual Date	Remarks
1	Introduction to NanoTechnology,	28-01-2026		
2	Unit -1 Introduction to Nanoscience	29-01-2026		
3	Introduction to Nanoscience	31-01-2026		
4	Nanoscale(properties)	02-02-2026		
5	Nanoscale,(applications)	04-02-2026		
6	Nanoparticles(properties)	05-02-2026		
7	Nanoparticles(applications)	07-02-2026		
8	Revision of unit -1	09-02-2026		
9	Unit-II : Nanotechnology: History	11-02-2026		
10	Nanotechnology: History	12-02-2026		
11	Top down approaches with fabrication	16-02-2026		
12	Top down approaches with fabrication	18-02-2026		
13	Top down approaches with fabrication	19-02-2026		
14	Bottom up approaches with fabrication	21-02-2026		
15	Bottom up approaches with fabrication	23-02-2026		
16	Bottom up approaches with fabrication	25-02-2026		
17	Future scope of nanotechnology.	26-02-2026		
18	Future scope of nanotechnology.	28-02-2026		
19	Revision OF UNIT -2	02-03-2026		
20	Unit-III : Properties of nanomaterials: Electronic	05-03-2026		
21	Electronic Properties	07-03-2026		
22	Magnetic Properties	09-03-2026		
23	CLASS TEST-I	11-03-2026		
24	Magnetic Properties	12-03-2026		
25	Optical Properties	16-03-2026		
26	Optical Properties	18-03-2026		
27	Chemical Properties	19-03-2026		
28	Chemical Properties	23-03-2026		

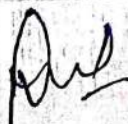
29	Mechanical Properties.	25-03-2026		
30	Mechanical Properties.	28-03-2026		
31	Unit-IV : Nanoelectronics Devices: Computer	30-03-2026		
32	Unit-IV : Nanoelectronics Devices: Computer	1-04-2026		
33	Memory	2-04-2026		
34	Memory	4-04-2026		
35	Integrated Circuit	6-04-2026		
36	CLASS TEST-II	8-04-2026		
37	CMOS Technology	9-04-2026		
38	CMOS Technology	13-04-2026		
39	Optoelectronic Devices.	16-04-2026		
40	Optoelectronic Devices	18-04-2026		
41	Revision of Unit-4	20-04-2026		
42	Unit-V : Applications of nanomaterials	22-04-2026		
43	Applications of Nanotechnology	23-04-2026		
44	Nanostructured materials in memory and electronic devices	25-04-2026		
45	Nanostructured materials in memory and electronic devices	27-04-2026		
46	Nanostructured materials for magnetic recording	29-04-2026		
47	Nanostructured materials for magnetic recording	30-04-2026		
48	Nanostructured materials for sensors & interfaces,	04-05-2026		
49	Nanostructured materials for sensors and interfaces,	06-05-2026		
50	Medicine	07-05-2026		
51	Energy	11-05-2026		
52	Energy	13-05-2026		
53	Electronics	14-05-2026		
54	Environment protection	16-05-2026		
55	Agriculture etc	18-05-2025		
56	Agriculture etc	20-05-2026		
57	Revision	21-05-2026		
58	Revision	23-05-2026		
59	Revision	25-05-2026		

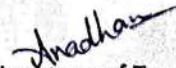
Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-I,II	10-03-2026		
A-2	Unit-III	01-04-2026		

House Test/Class Test

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class test-I	30% of the syllabus	2 nd week of March		
Class test-II	30% of the syllabus	2 nd week of April		
House test	80% of the syllabus	As approved in academic calendar		


(Signature of HOD)


(Signature of Teacher)

Department of Eltx. & Comm. Engg

LESSON PLAN

Program Name	Diploma in Electronics & Communication Engg.
Course/Subject Name	Computer Hardware and Peripherals
Course/Subject Code	COOE304
Course/Subject Co-ordinator Name	Nishi Verma

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)	Marks in Evaluation Scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1	Computer Hardware and Peripherals	Theory - 4/week	40	--	60	--
Reference Books		The Complete PC Upgrade and Maintenance Guide, Mark Minasi, John Willey & Sons Inc.				
		Upgrading and Repairing PCs, Scott Mueller, Que Publication				

Course Outcomes (COs)

C.O. 1	Identify and understand various hardware and network devices.
C.O.2	Understand different internet connectivity technologies.
C.O.3	Identify different hardware/networking faults and their possible solutions

Teaching Plan

S.N.	Name of Topic	Proposed Date	Actual Date	Remarks
1	Basics of Computer System	27-01-2026		
2	Computer hardware	28-01-2026		
3	UNIT-I Computer Hardware Devices	29-01-2026		
4	PC components	02-02-2026		
5	Processor types and their features	03-02-2026		
6	Processor specification	04-02-2026		
7	Overview of motherboards	05-02-2026		
8	Bus system	09-02-2026		
9	data I/O bus	10-02-2026		
10	Address bus	11-02-2026		
11	Internal Data bus	12-02-2026		
12	Comparing processor performance	16-02-2026		
13	BIOS	17-02-2026		
14	BIOS setup menus	18-02-2026		
15	Limitation of BIOS , UEFI	19-02-2026		
16	Overview of Mobile devices hardware.	23-02-2026		
17	UNIT-II Input/ Output Devices and Memory	24-02-2026		
18	Objective of I/O Devices	25-02-2026		
19	Types of input devices	26-02-2026		
20	Different printing devices and their use	02-03-2026		
21	Display types– LCD, LED	03-03-2026		
22	Plasma, OLED	05-03-2026		
23	HDTV, Data projector	09-03-2026		
24	Video connector types – VGA, DVI	10-03-2026		
25	CLASS TEST-I	11-03-2026		
26	HDMI, S-Video	12-03-2026		
27	Characteristics of display devices – Resolution, refresh rate, response time, color quality	16-03-2026		
28	USB port	17-03-2026		

29	Memory basics - ROM, RAM	18-03-2026		
30	Types of RAM, Memory Module – Registered Modules, SDR DIMM	19-03-2026		
31	DDR DIMM, DDR2 DIMM DDR3 DIMM, DDR4 DIMM	23-03-2026		
32	Concept of cache –internal cache	24-03-2026		
33	External Cache (L1, L2, L3 cache)	25-03-2026		
34	UNIT-III Storage Devices	30-03-2026		
35	Type of storage devices,	01-04-2026		
36	Benefits and features of storage devices	02-04-2026		
37	Principle and operation of HDD	06-04-2026		
38	Basic HDD components	07-04-2026		
39	CLASS TEST-II	08-04-2026		
40	HDD cables and connectors	09-04-2026		
41	Optical Storage –CD/DVD construction technology	13-04-2026		
42	DVD format and standards, Concept of HD-DVD	16-04-2026		
43	Optical drive performance specifications – data transfer rate, drive speed, access time	20-04-2026		
44	Flash and removable devices	21-04-2026		
45	USB flash drive, SSD, Flash card readers	22-04-2026		
46	Concept of cloud-based storage.	23-04-2026		
47	UNIT-IV Networking Devices- Different types of networking devices –NIC	27-04-2026		
48	Repeaters, Switch, Hub, router	28-04-2026		
49	gateways, bridge, modem	29-04-2026		
50	Access point, Bluetooth, Firewall	30-04-2026		
51	Internet connectivity technologies	04-05-2026		
52	Dial-up, ISDN, broadband	05-05-2026		
53	Wi-Max, leased line	06-05-2026		
54	Networking cables	07-05-2026		
55	Networking cables	14-05-2026		
56	Networking tools	18-05-2026		
57	Revision	19-05-2026		
58	Revision	21-05-2026		
59	Revision	25-05-2026		
60	Revision	26-05-2026		

Assignments

Assignment Serial	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-I,II	19-03-2026		
A-2	Unit-III	23-04-2025		

House Test/Class Test

Name of test	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
Class test-I	30% of the syllabus	2 nd week of March		
Class test-II	30% of the syllabus	2 nd week of April		
House test	80% of the syllabus	As approved in academic calendar		


(Signature of HOD)


(Signature of Teacher)

LESSON PLAN

Program Name	ELTX & COMM. ENGG.
Course/Subject Name	COMPUTER NETWORKING AND DATA COMMUNICATION
Course/Subject Code	ECPC302104
Course/Subject Coordinator Name	Raman Kumar

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	CN&DC AND CN&DC LAB	TH [2+3(DCS) + [(Lab) Pr:2,DCS:1]	40	40	60	60
Reference books			1. Computer Networking A top down Approach: J.F.Kurose Pearson. 2. Computer Networks and Internet D.E. Comer Pearson 3. Wireless Communications: Principles and Practice, 2nd edition T. Rappaport Prentice Hall, 2002. 4. Wireless Communication and Networking John W. Mark, Weihua Zhuang			

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

- CO1: Understand fundamental underlying principles of computer networking.
- CO2: Describe and analyse the hardware, software, components of a network and the interrelations
- CO3: Generalization of cryptography and network security.
- CO4: Have a basic knowledge of installing and configuring networking applications.
- CO5: Identify the use of microwave components and devices in microwave applications.

Teaching Plan:

Lecture No.	Topic Covered	Proposed Date	Actual Date	Remarks
1	UNIT :1Introduction to Data Communication: (Concept of Analog & Digital Signals)	27-1-2026		
2	Band Width	28-1-2026		
3	Network Architecture : Basic of ISO Reference Model	30-1-2026		
4	Basic of TCP/IP Reference model	30-1-2026		
5	Types of computer networks LAN,MAN	31-1-2026		
6	Types of computer networks PAN,WAN	3-2-2026		
7	Internetwork	4-2-2026		
8	Network Topologies	6-2-2026		
9	Point to point topology	6-2-2026		
10	Bus topology	7-2-2026		
11	Daisy chain topology	10-2-2026		
12	Hybrid topology	11-2-2026		
13	Computer network model	13-2-2026		
14	Transmission media	13-2-2026		
15	Wired & Wireless connectivity	17-2-2026		

Raman Kumar

16	UNIT:2 Digital & Analog Transmission: (Digital Transmission)	18-2-2026		
17	Unipolar coding	20-2-2026		
18	Polar Encoding	20-2-2026		
19	Polar Encoding	21-2-2026		
20	Block coding	24-2-2026		
21	Analog Transmission	25-2-2026		
22	Analog to digital conversion	27-2-2026		
23	Digital to analog conversion	27-2-2026		
24	Analog to analog conversion	28-2-2026		
25	Sampling	3-3-2026		
26	Quantization	6-3-2026		
27	Encoding.	6-3-2026		
28	Encoding	7-3-2026		
29	Transmission Modes	10-3-2026		
30	Transmission Modes	1-3-2026		
31	UNIT: 3 Wireless Communication,(Radio, Microwave infrared light transmission)	13-3-2026		
32	Wireless communication standards	13-3-2026		
33	Characterization of Wireless channel	17-3-2026		
34	CT-1	18-3-2026		
35	Receiver technique	20-3-2026		
36	Performance analysis of DCSR	20-3-2026		
37	Performance analysis of CBRP	24-3-2026		
38	Mobile IP	25-3-2026		
39	Mobility Management in wireless networks	27-3-2026		
40	Ad hoc network	27-3-2026		
41	Ad hoc routing protocol	28-3-2026		
42	Cluster Technologies Types	1-4-2026		
43	Cluster Technologies Types	4-4-2026		
44	Incremental cluster maintenance scheme	7-4-2026		
45	Space time coding for Wireless comm.	8-4-2026		
46	UNIT: 4 Data link layer technologies,(Types of network Routing)	10-4-2026		
47	Network layer protocols	10-4-2026		
48	FDM,TDM,CDMA	17-4-2026		
49	Fibre optic networks	17-4-2026		
50	Satellite networks	18-4-2026		
51	Data link design layer issues ; its functions & protocols	21-4-2026		
52	Internet protocol	22-4-2026		
53	CT-2	24-4-2026		
54	Routing algorithms	24-4-2026		
55	Routing algorithms	25-4-2026		
56	Congestion control Algorithms	28-4-2026		
57	Congestion control Algorithms	29-4-2026		
58	IP addressing technique & internetworking, error correction-detection technique etc.	2-5-2026		
59	Error correction-detection techniques.	5-5-2026		
60	Data link control & Protocols	6-5-2026		
61	UNIT 5:Transmission media & Transmission control protocols (Magnetic Media)	8-5-2026		
62	Crash recover	8-5-2026		
63	Protocol features & Congestion control	12-5-2026		
64	Header & Time Management	13-5-2026		
65	Addressing connection management	15-5-2026		
66	Error control & flow control	15-5-2026		

67	Addressing connection management	16-5-2026		
68	Error control	19-5-2026		
69	Flow control	20-5-2026		
70	Multiplexing	22-5-2026		
71	Congestion control (Repeated)	22-5-2026		
72	Timer management(Repeated)	23-5-2026		
73	Crash recover(Repeated)	26-5-2026		

Assignments:

Assignment serial	Contents of syllabus covered	Proposed date	Actual date	Remarks
A-1	Unit-I, II	13-3-2026		
A-2	Unit-III, IV	21-4-2026		
A-3	Unit-V	20-5-2026		

House Test/Class Test:

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

Lab Plan:

Exp. No.	Name of Experiment	Date of Experiment		Remarks
		Proposed	Actual	
1	To study different physical equipment used in networking.	G-1 2-2-2026 G-2 31-1-2026	G-1 G-2	
2	Study the different internetworking devices in a computer Network.	G-1 16-2-2026 G-2 21-2-2026	G-1 G-2	
3	Study the working of basic networking commands.	G-1 23-2-2026 G-2 28-2-2026	G-1 G-2	
4	To study PC to PC communication using Parallel Port.	G-1 9-3-2026 G-2 7-3-2026	G-1 G-2	
5	Study of LAN in Star Topology.	G-1 23-3-2026 G-2 28-3-2026	G-1 G-2	
6	Study of LAN in Bus Topology.	G-1 30-3-2026 G-2 4-4-2026	G-1 G-2	
7	Study of LAN in Tree Topology.	G-1 13-4-2026 G-2 18-4-2026	G-1 G-2	
8	Study & configuration of modem of computer.	G-1 27-4-2026 G-2 25-4-2026	G-1 G-2	
9	Study of Wireless communication.	G-1 4-5-2026 G-2 2-5-2026	G-1 G-2	
10	Studying PC communication using LAN.	G-1 11-5-2026 G-2 16-5-2026	G-1 G-2	

(Signature of Teacher)

R. Sankar
(Signature of HOD)

LESSON PLAN

Program Name	DIPLOMA IN ECE
Course/Subject Name	Entrepreneurship and Start-ups
Course/Subject Code	HS 302
Course/Subject Coordinator Name	Swati Bhardwaj

Evaluation scheme

S.No.	Subject Name	Study scheme (Hrs/Week)	Marks in evaluation scheme			
			Internal Assessment		External Assessment	
			Theory	Practical	Theory	Practical
1.	Entrepreneurship and Start-ups	4 hrs (Th)	40	-	60	-

Reference books:	(1) The Startup Owner's Manual by Steve Blank and Bob Dorf K & S Ranch ISBN Publication
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Evaluation scheme	(2) The Lean Startup by Eric Ries, Penguin UK ISBN Publication
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Study scheme	(3) Entrepreneurship and Start-ups by Harish C. Saini and Parmod Kumar Singla, Eagle Prakashan
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1. Entrepreneurship and Start-ups	4 hrs (Th)	40	(4) Entrepreneurship and Start-ups by Sahil Kaushal and Abhishek Thakur, Tru-Edu Publication
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Course Outcomes:	After the completion of the course, the students will be able to:
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CO1	Acquiring Entrepreneurial spirit and resourcefulness.
CO2	Familiarization with various uses of human resources for earning dignified means of living.
CO3	Understanding the concept and process of entrepreneurship. Its contribution and role in the growth and development of individual and the nation.
CO4	Acquiring entrepreneurial quality, competency, and motivation.
CO5	Learning the process and Skills of creation and management of entrepreneurial venture.

	(4) Entrepreneurship and Start-ups by Sahil Kaushal and Abhishek Thakur, Tru-Edu Publication
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Teaching Plan:

Lecture No.	Name of topic	Proposed Date	Actual Date	Remarks
1	UNIT 1 – Introduction to Entrepreneurship and Start-Ups Introduction to Entrepreneurship	29.01.2026		
2	Introduction to Start-Ups	30.01.2026		
3	Traits of an entrepreneur	31.01.2026		
4	Motivation	02.02.2026		
5	Types of Business Structures	05.02.2026		
6	Types of Business Structures	06.02.2026		
7	Similarities between entrepreneurs and managers	07.02.2026		
8	Differences between entrepreneurs and managers	09.02.2026 29.01.2026		
9	UNIT 2–Business Ideas and their implementation: Introduction	12.02.2026		
10	Discovering ideas	13.02.2026		
11	Visualizing the business	16.02.2026		
12	Activity map	19.02.2026		
13	Activity map	20.02.2026		
14	Business Plans	21.02.2026		
15	Business Plans	23.02.2026		
16	UNIT 3 –Idea to Start-up: Introduction	26.02.2026		
17	Market Analysis	27.02.2026		
18	Market Analysis	28.02.2026		
19	Identifying the target market	02.03.2026		
20	Identifying the target market	05.03.2026		
21	Competition evaluation	06.03.2026		
22	Strategy Development	07.03.2026		
23	Strategy Development	09.03.2026		
24	Class Test -I	12.03.2026		
25	Marketing and Accounting	13.03.2026		
26	Marketing and Accounting	16.03.2026		
27	Risk analysis	19.03.2026		
28	Risk analysis	20.03.2026		
17	Market Analysis	27.02.2026		
18	Market Analysis	28.02.2026		
19	Identifying the target market	02.03.2026		
20	Identifying the target market	05.03.2026		

Assignments:

Assignment serial	Contents of syllabus covered	Actual date	Remarks
A-1	Introduction to Entrepreneurship and Start-Ups, Business Ideas and their implementation & Idea to Start-up		
A-2	Management, Financing and Protection of Ideas & Exit strategies for entrepreneurs		

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	Actual date	Remarks
CT-I	30% of the syllabus	12.03., 2026		
CT-II	Next 30% of the syllabus	10.04.2026		
House Test	80% of the syllabus	2 nd week of May, 2026		
	Implementation & Idea to Start-up			
	Management, Financing and Protection of Ideas & Exit strategies for entrepreneurs			

House Test/Class Test:

House/Class Test	Contents of syllabus covered	Proposed Date	(Signature of Teacher)	Remarks
CT-I	30% of the syllabus	12.03., 2026	(Swati Bhardwaj)	
CT-II	Next 30% of the syllabus	10.04.2026		
House Test	80% of the syllabus	2 nd week of May, 2026		
	Implementation & Idea to Start-up			
	Management, Financing and Protection of Ideas & Exit strategies for entrepreneurs			