

PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
PANIPAT
DEPARTMENT OF APPLIED SCIENCES & HUMANITIES

LESSON PLAN

Name: - Dr. Sakshi Arora

Subject Name: - Biology

Branch/Semester: -1th Sem. (Session 2021-22)

Subject Code:- BS-141A

Sr. No.	Lecture No.	Description of Topic	Tentative date	Methodology	CO
1	L1	Unit 1: Importance of biology in engineering	2/11/21	Discussion	CO1
2	L2	Unit 1: characteristic of living organism, prokaryotes and eukaryotes, mitochondria	8/11/21	Lecture using powerpoint presentation (ppt)	CO1
3	L3	Unit 1- Mitochondria, chloroplast	9/11/21	Lecture using ppt	CO1
4	L4	Unit 1- chloroplast, plant cell, animal cell	10/11/21	Lecture using ppt + video	CO1
5	L5	Nucleus, ER,	15/11/21	Lecture using ppt	CO1
6	L6	ribosomes Introduction to replication, transcriptnaraion and translation	16/11/21	Lecture using animated video and discussion	CO1
7	L7	Unit 1 – Classification of organism	17/11/21	Student presentation	CO1
8	L8	Unit 1 – Classification of organism	22/11/21	Student presentation	CO1
9	L9	Unit 4- Metabolism (introduction), cellular respiration	23/11/21	Lecture using ppt	CO4
10	L10	Unit 4- Glycolysis	24/11/21	Lecture using ppt	CO4
11	L11	Unit 4- Citric acid cycle & electron transport chain	29/11/21	Lecture using ppt	CO4
12	L12	Unit 2 – Introduction to biomolecules, Carbohydrate	30/12/21	Lecture	CO2
13	L13	Test -1	01/12/21		
14	L14	Unit 2 – Carbohydrates	06/12/21	Lecture using ppt	CO2

15	L15	Unit 2 – Lipids, Nucleic acid	07/12/21	Lecture using ppt	CO2
16	L16	Unit 2 – Nucleic acid, proteins	08/12/21	Lecture using ppt	CO2
17	L17	Unit 2 – Proteins	13/12/21	Lecture using ppt	CO2
18	L18	Unit 2 – Enzymes	14/12/21	Lecture using ppt	CO2
19	L19	Unit 2 – Enzymes Kinetics	15/12/21	Lecture	CO2
20		Sessional – I	18/12/21- 21/12/21		
21	L20	Exam Discussion	22/12/21	Discussion	
22	L21	Unit 3 – Experiment proving DNA is genetic material, Central Dogma	27/12/21	Lecture using ppt	CO2
23	L22	Unit 3 – Introduction to genetics	28/12/21	Discussion	CO3
24	L23	Unit 3 – Mendel’s law of inheritance	29/12/21	Lecture using ppt	CO3
25	L24	Unit 3- Concept of recessiveness and dominance, Variation and speciation	3/1/22	Lecture using ppt	CO3
26	L25	Genetic disorders	4/1/22	Flip learning and discussion	CO3
27	L26	Genetic disorders	5/1/22	Lecture using ppt	CO3
28	L27	Cell Cycle , introduction to mitosis and meiosis	10/1/22	Animated video + discussion	CO3
29	L28	Mitosis and meiosis	11/1/22	Lecture using ppt + animated videos	CO3
30	L29	Brief introduction to microbiology, good and bad microbes	12/1/22	Discussion	CO5
31	L30	Morphology and pathogenicity of bacteria, Gram positive and negative bacteria classification	17/1/22	Lecture using ppt	CO5
32	L31	Test- II	18/1/22		
33	L32	Morphology and pathogenicity of virus	19/1/22	Lecture using ppt	CO5
34		Sessional-II	22-25/1/22		

35	L33	Exam Discussion	26/1/22	Discussion	CO5
36	L34	Morphology and pathogenicity of fungi	31/1/22	Lecture using ppt	CO5
37	L35	Morphology and pathogenicity of protozoa	1/2/22	Lecture using ppt	CO5
38	L36	Unit 4- Concept of strain and sterilization	2/2/22	Lecture	CO5
39	L37	Media composition and growth kinetics of bacteria	7/2/22	Lecture using ppt	CO5
40	L38	Photosynthesis	8/2/22	Lecture using ppt	CO4
41	L39	ATP as Energy currency of the cell	9/2/22	Lecture using ppt	CO4
42	L40	Role of biology in agriculture	14/2/22	Flip learning + student presentation	CO6
43	L41	Role of biology in Medicine, Forensic	15/2/22	Flip learning + student presentation	CO6
44	L42	Role of biology in bioinformatics	16/2/22	Flip learning + student presentation	CO6
45	L43	Role of Biology in Nanotechnology	21/2/22	Flip learning + student presentation	CO6
46	L44	Role of biology in Bio-MEMS and Biosensors	23/2/22	Flip learning + student presentation	CO6
47		Test-III	24/2/22		
48		Sessional III	28/2/22		

***Highlighted part represents Content beyond Syllabus topics**

*** Quizzes on Saturdays**

Subject In charge