

BHAI GURDAS INSTITUTE OF ENGINEERING AND TECHNOLOGY
SANGRUR
Department of Food Technology

LESSON PLAN

Name: Ms. Amandeep Kaur
Branch/ Semester: 4th Sem.

Subject name: Food Biochemistry
Subject code: BTFT 221-19

Sr. No.	Lecture no.	Topics to be covered	Date /week	Teaching aids	Remarks
1.	L-1	Unit I: Importance of food biochemistry, Functions of food	1st Week	Black board & PPT	
2.	L-2	Basic food groups; nutrients supplied by food		Black board & PPT	
3.	L-3	Water in foods and its properties	2nd Week	Black board	
4.	L-4	water intake and losses, energy balance and basal metabolism		Black board	
5.	L-5	Unit II Carbohydrate: Sources of food carbohydrates	3rd Week	Black board & PPT	
6.	L-6	Physico-chemical and functional properties; chemistry and structure of homo saccharides and hetero saccharide		Black board	
7.	L-7	introduction to carbohydrates metabolism, glycolysis,	4th Week	Black board	
8.	L-8	TCA cycle, Electron transport chain, oxidative and substrate level phosphorylation gluconeogenesis and glycogen metabolism		Black board	
9.	L-9	Functions, sources, digestion, absorption, assimilation, transport of proteins	5th Week	Black board & PPT	
10.	L-10	transamination Deamination and decarboxylation fixation of nitrogen		Black board	
11.	L-11	Introduction to enzyme and characteristics	6th Week	Black board	
12.	L-12	coenzymes, kinetics and mechanism of enzyme action		Black board & PPT	
13.	L-13	Importance of Hormones.	7th Week	Black board	

14.	L-14	Unit III Fats: Sources and physico chemical and functional properties		Black board & PPT	
15.	L-15	PUFA [Poly-unsaturated Fatty Acids] hydrogenation and rancidity		Black board & PPT	
16.	L-16	Saponification number, iodine value, Reichert-Meissl number, Polenske value;	8th Week	Black	
17.	L-17	Lipids of biological importance like cholesterol and phospholipids.		Black board & PPT	
18.	L-18	Introduction to lipid metabolism, β -oxidation of long chain fatty acids	9th Week	Black board	
19.	L-19	Ketosis, breakdown of phospholipids Biosynthesis of fatty acids,		Black board	
20.	L-20	triglycerides, phospholipids, nucleotides and nucleic acids.	10th Week	Black board	
21.	L-21	Unit IV : Minerals and Vitamins: Sources and structures of minerals & vitamins		Black board	
22.	L-22	Pro vitamins A & D; Vitamins as antioxidants	11th Week	Black board & PPT	
23.	L-23	Minerals: Functions, sources, absorption, deficiency of macrominerals, micro-minerals, and trace minerals		Black board & PPT	
24.	L-24	Vitamins: classification, Functions, sources, absorption	12th Week	Black board	
25.	L-25	deficiency of water soluble and fat-soluble Vitamins.		Black board & PPT	
26.	L-26	Effect of processing on macro and micronutrients.		Black board & PPT	

(Course Incharge)