

Name of Faculty: - Mohit Jindal

Discipline: - Food Technology

Semester: - 5th

Subject: - **HEALTH & FUNCTIONAL FOODS** (Theory & Practical)

Lesson Plan Duration: - 15 weeks (August-2025 to December-2025)

Workload (Theory / Practical) per week (in hours): Theory-02, Practical-02

Week 1

1. Theory: Introduction to health and functional foods – Definition, scope, and status in India
2. Theory: Types and importance of nutraceuticals
3. Practical: Preparation of high-fibre bread

Week 2

4. Theory: Overview of various health and functional foods and their properties
5. Theory: Study of food constituents responsible for functional effects – Anti-carcinogenic foods
6. Practical: Preparation of high-fibre biscuits

Week 3

7. Theory: Hypo-cholesterolemic and hypoglycemic foods
8. Theory: Role of antioxidants in health
9. Practical: Preparation of high-fibre cake

Week 4

10. Theory: Fortified and enriched foods – definitions and significance
11. Theory: Bio-fortified, probiotic, prebiotic, synbiotic foods
12. Practical: Preparation of nutritious beverages

Week 5

13. Theory: High-protein, high-energy, low-energy foods
14. Theory: Geriatric foods – importance and formulation
15. Practical: Preparation of functional foods for obese persons

Week 6

16. Theory: Importance of fibre in health and disease prevention
17. Theory: Types of dietary fibre and their effects
18. Practical: Preparation of functional foods for aged persons

Week 7

19. Theory: Daily recommended fibre intake and natural sources
20. Theory: Definition and importance of food fortification and enrichment
21. Practical: Preparation of hypocholesterolemic foods

Week 8

22. Theory: Study of fortified foods: Salt, atta, oil
23. Theory: Study of enriched foods: Juices, health drinks
24. Practical: Preparation of diets for anaemic patients

Week 9

25. Theory: National guidelines and FSSAI regulations on fortification
26. Theory: Organic foods – concepts and health benefits
27. Practical: Preparation of low-sodium foods

Week 10

28. Theory: Genetically modified (GM) foods – overview and examples
29. Theory: Potential health risks of GM foods
30. Practical: Preparation of malt-based drink

Week 11

31. Theory: Labeling requirements for organic and GM foods
32. Theory: Revision of Unit I & II
33. Practical: Preparation of foods for under-weight persons

Week 12

34. Theory: Revision of Unit III
35. Theory: Revision of Unit IV
36. Practical: Preparation of high-caloric diet for sportsmen

Week 13

37. Theory: Revision of Unit V
38. Theory: Class test / Quiz
39. Practical: Preparation of high-protein diet for sportsmen

Week 14

40. Theory: Concept integration: Functional foods in public health programs
41. Theory: Industry trends in functional foods and nutraceuticals
42. Practical: Preparation of fortified atta

Week 15

43. Theory: Market potential and entrepreneurship in health foods
44. Theory: Value addition and innovation in functional foods
45. Practical: Preparation of probiotic food

Week 16

46. Theory: Comprehensive Revision – All Units
47. Theory: Question Bank Practice / Group Discussion
48. Practical: Practical revision & viva-voce preparation