

Course Title:				Introduction to Food Science				
Course Code:				BTL 2534				
Course Coordinator				Dr. Parvez Singh Slathia/ Mr Arvind Kumar Yadav				
Credits				4-0-0				
Evaluation Scheme Total 100 Marks								
Quiz (Total 20 Marks)				Assignment/Project (Total 20 marks) (Minimum Two Assignments or one Project)		Mid-Term	Major Examination	Total
Quiz I (5 marks)	Quiz II (5 marks)	Quiz III (5 marks)	Quiz IV (5 marks)			20 marks (1 ½ Hour Duration)	(40 marks) (3 Hour Duration)	100 Marks
WEEKS				TOPICS TO BE COVERED				
Week 1				Major components of food; Carbohydrates- metabolic role of carbohydrates and fibre, Sources of carbohydrates in diet				
Week 2				Fats- saturated and unsaturated fats, their metabolic roles and requirements in diet, Sources of fat				
Week 3				Proteins- metabolic functions and major sources. Structural and functional role of proteins				
Week 4				Role of water, vitamins and minerals- sources and their role. Vitamin and mineral deficiencies				
Week 5				Food spoilage and its causes- microbial and environmental, Harmful effects of microbes on food				
Week 6				Microbial spoilage of food, Food poisoning, Food borne infections				
Week 7				Beneficial effects of microbes - Fermented foods (kimchi, sauerkraut, cheese, kefir, yogurt), Probiotics and their health benefits				
Week 8				Basic principles of Food preservation, water activity, preservation by removal or supply of heat				
Week 9				Food preservation methods- Drying, refrigeration, dehydration,				
Week 10				Food preservation methods- irradiation, chemical additives for food preservation.				
Week 11 (17th -21st March, 2025)				Mid-Term				
2nd May, 2025				Showing of Mid-Term Answer Sheets				

Week 13	Production of processed foods- Industrial processes for manufacture of fruit juice, jam, marmalade
Week 14	Production of processed foods- squash, candies, tomato sauce, ketchup
Week 15	Production of processed foods -potato chips, pickles, etc.
Week 16	Production of alcoholic beverages - wine and beer
Week 17 (5 th -9 th May, 2025)	Revision Week
Week 18 (13 th – 22 nd May, 2025)	Major Examinations
29 th May, 2025	Showing of Major Exams Answer Sheets

Course Outcomes:

CO1: Knowledge about the various components of food and their role.

CO2: Knowledge about the beneficial and harmful effects of microbes on food.

CO3: Understanding about principles underlying food preservation

CO4: Knowledge about the processing and production of some commercially important foods

Recommended Books:

1. Food Science: Research and Technology by L Jordan, Callisto Reference, 2018
2. Food Microbiology, Food Microbiology, 5th Edition by W.C. Frazier, D.C. Westhoff, McGraw Hill, 2017
3. Essentials of Food Science (Food Science Text Series) 5th edition by V.A. Vaclavik, E. W. Christian and T. Campbell, Springer, 2021
4. Modern Food Microbiology Paperback by K. R. Aneja, Medtech Publishers, 2018.

Calendar of Quizzes/Assignment etc. to be provided as per below details and exact dates to be fixed in consultation with other course coordinators to avoid overlap of Quizzes of different courses.

Component	Date
Quiz-I	27 th -31 st , January 2025
Quiz-II	24 th -28 th February, 2025
Assignment-I	10 th -12 th February, 2025
Mid-Term	17-21 st March, 2025
Assignment-II/ Project Submission	21 st – 24 th April, 2025
Quiz-III	7 th – 11 th April, 2025
Quiz-IV	28 th April-2nd, May, 2025
Major Exam	13 th – 22 nd May, 2025

Note:

1. **One surprise Quiz may be fixed out of Quiz-II, Quiz-III or Quiz-IV.**
2. **In case of any deviation in evaluation methodology for courses such as AEC/VAC/SEC shall be mentioned accordingly. Thus, same shall be approved by the next BOS of school if not done earlier.**

Signature of Course Coordinator :