

**Draft UG Syllabus -**

# **FOOD and NUTRITION**

**West Bengal State University**

**2023**

## Food and Nutrition

### Semester wise Outline Structure: Major courses

Semester(s)	Course Codes (Credit)
Semester 1	DS 1(5)
Semester 2	DS 2(5)
Semester 3	DS 3(5)
Semester 4	DS 4(5), DS 5(5), DS 6(5), DS 7(5)
Semester 5	DS 8(5), DS 9(5), DS 10(5), DS 11(5)
Semester 6	DS 12(5), DS 13(5), DS 14(5), DS 15(5)
Semester 7	DS 16(5), DS 17(5)
Semester 8	DS 18(5), DS 19(5), DS 20(5), DS 21(5)

Note: A 5 credit Course will have 3 credit Theory and 2 credit Practical; 45 lecture hours may be allotted for a 3 credit Theory Course

**SEMESTER 1**

# Food and Nutrition

## CORE COURSE (DS) FNTADS01T: Basics of Food and Nutrition

**Course Objectives:** To make basics of Food and Nutrition clearer, provide a sound foundation and make it academically interesting to the students

### 1. Introduction to Food and Nutrition

Food: Definition and Types Energy giving, body building and protective.

Nutrients: macro and micro nutrients, Nutrition and related Terms: basic concepts  
Diet and balanced diet, Menu. Functional foods, prebiotics, probiotics, phytochemicals, nutraceuticals. Fibre. Functions of foods: physiological, psychological, social. Food groups, food pyramid, Relation between food and nutrition, health and diseases.

### 2. Foods, Nutrients and Cooking of food

Foods and their nutrient contents: Nutrients present in cereals and millets, pulses, nuts and oil seeds, fruits and vegetables, milk and milk products, flesh food, eggs, Condiment and spices, salt. Non- nutrient components of foods: phytate, tannins, oxalate, trypsin inhibitor, goitrogens and other toxic agents in food. Preservatives – basic idea

Cooking: Beneficial and adverse effects of cooking. Different methods of cooking-dry, moist, frying, boiling and micro wave cooking- advantage, disadvantage and the effect of various methods of cooking on foods, Solar cooking.

### 3. Food energy and energy requirements:

The energy value of foods: Physical and physiological calories. Bomb calorimeter Energy requirement of an individual: Basal metabolic rate (BMR) BMR: Measurement (direct and indirect), factors affecting BMR, SDA of foods. Nutritional requirements and Recommended dietary allowances (RDA): factors affecting RDA, Application of RDA; Reference man and woman.

## CORE COURSE (DS) FNTADS01P: Basics of Food and Nutrition (Practical)

2 CREDITS

1. Process involved in cooking, microwave, steaming, grilling, deep fat frying.
2. General concepts of weights and measures, Eye estimation of raw and cooked foods
3. Preparation of food from different food groups and their significance in relation to health
4. Preparation of supplementary food for different age group and their nutritional significance

Course Outcome: students should be able to appreciate the basics of Food and Nutrition thoroughly after completing the particular course