



SRI VENKATESHWARA UNIVERSITY

TIRUPATI

Model Syllabus for 4-Year UG Honours in B.Sc. (Food Science and Technology) as Major in consonance with Curriculum framework w.e.f. AY 2025-26

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COURSE STRUCTURE

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
I	I	1	Introduction to Food Science and Technology	3	3
			Introduction to Food Science and Technology-Practical	2	1
		2	Human Nutrition	3	3
			Human Nutrition-Practical	2	1
	II	3	Food Microbiology	3	3
			Food Microbiology-Practical	2	1
		4	Basic principles of Food Engineering	3	3
			Basic principles of Food Engineering-Practical	2	1
II	III	5	Technology of Fats and Oils	3	3
			Technology of Fats and Oils-Practical	2	1
		6	Dairy Technology	3	3
			Dairy Technology-Practical	2	1
		7	Confectionery Technology	3	3
			Confectionery Technology-Practical	2	1
	IV	8	Baking Science and Technology	3	3
			Baking Science and Technology-Practical	2	1
		9	Technology of Fruits and Vegetables	3	3
			Technology of Fruits and Vegetables-Practical	2	1
		10	Technology of Cereals, Pulses and oil seeds	3	3
			Technology of Cereals, Pulses and oil seeds-Practical	2	1
III	V	11	Food Safety and Quality Control	3	3
			Food Safety and Quality Control-Practical	2	1

		12 A	Technology of meat, poultry and fish products	3	3
			Technology of meat, poultry and fish products-Practical	2	1
		OR			
		12 B	Post-harvest technology of horticulture crops and herbs	3	3
			Post-harvest technology of horticulture crops and herbs-Practical	2	1
		13 A	Unit operations in food industry	3	3
			Unit operations in food industry-Practical	2	1
		OR			
		13 B	Fermentation Technology	3	3
			Fermentation Technology-Practical	2	1
	VI	14 A	Food Processing and Preservation Technology	3	3
			Food Processing and Preservation Technology-Practical	2	1
		OR			
		14 B	Food Fortification	3	3
			Food Fortification-Practical	2	1
		15 A	Processing Technology of Beverages	3	3
			Processing Technology of Beverages-Practical	2	1
		OR			
		15 B	Food Packaging Technology	3	3
			Food Packaging Technology-Practical	2	1
IV	VII	16	Enzymes in Food Processing Industry	3	3
			Enzymes in Food Processing Industry-Practical	2	1
		17	Nutraceuticals and Functional foods	3	3
			Nutraceuticals and Functional foods-Practical	2	1
		18	Fundamentals of Food Chemistry	3	3
			Fundamentals of Food Chemistry-Practical	2	1
		19 A	Food Product development and entrepreneurship	3	3
			Food Product development and entrepreneurship-Practical	2	1
		OR			

		19 B	Food waste management and by- product utilization	3	3	
			Food waste management and by- product utilization-Practical	2	1	
		20 A	Research Methodology and Scientific writing of papers	3	3	
			Research Methodology and Scientific writing of papers-Practical	2	1	
		OR				
		20 B	Computational biology and ICT in Food industry	3	3	
			Computational biology and ICT in Food industry-Practical	2	1	
		VIII	21	Food Biotechnology and nano- technology	3	3
				Food Biotechnology and nano-technology-Practical	2	1
	22		Industrial Microbiology	3	3	
			Industrial Microbiology-Practical	2	1	
	23		Instrumentation in Food Analysis	3	3	
			Instrumentation in Food Analysis-Practical	2	1	
	24 A		Food Toxicology	3	3	
			Food Toxicology-Practical	2	1	
	OR					
24 B	Basics in Immunology, Food Allergy and Food borne diseases		3	3		
	Basics in Immunology, Food Allergy and Food borne diseases-Practical		2	1		
25 A	Snack Food Extrusion Technology		3	3		
	Snack Food Extrusion Technology-Practical		2	1		
OR						
25 B	Technology of Spices, condiments and plantation crops		3	3		
	Technology of Spices, condiments and plantation crops-Practical		2	1		

Note: In the III Year (during the V and VI Semesters), students are required to select a pair of electives from one of the Three specified domains. For example: if set 'A' is chosen, courses 12 to 15 to be chosen as 12 A, 13 A, 14 A and 15 A. To ensure in-depth understanding and skill development in the chosen domain, students must continue with the same domain electives in both the V and VI Semesters.

SEMESTER - I

COURSE 2: HUMAN NUTRITION

Theory

Credits: 3

3 hrs/week

Learning Objectives

To familiarize with the concepts of nutrition

Learning Outcomes

Upon successful completion of the course, the students will be able to

LO1: To Understand about Nutrition, and importance of food for Health

LO2: To Analyze about different vitamins and minerals and their importance

LO3: To know about Balanced diet and Recommended Dietary Allowances

LO4: To study about diet surveys and Vitamin Deficiency Control Programmes

LO5: To gain knowledge about International agencies like WHO, FAO, UNICEF and CARE

Unit – I

Introduction to human nutrition- basic definition of nutrition, health, nutrients. Principles compounds in foods- classification of foods, sources, functions and deficiency symptoms of carbohydrates, proteins, fat, vitamins and minerals.

Unit – II

Nutritional requirements for different age groups – infant, pre-school children, school going children, adolescents, adults, old age, pregnancy, lactation and industrial workers; recommended dietary allowances (RDA) for different age groups.

Unit – III

Classification of foods, their Nutritive value, effect of processing on nutritive value of foods- obesity, food faddism and faulty food habits- toxicants naturally occurring in foods- food adulteration.

Unit – IV

Food production and consumption pattern in different parts of India – food requirements and availability- applied nutrition programme, diet and nutrition in India.

Unit – V

Prevention of malnutrition in developing countries- nutritive value of common Indian recipes- therapeutic diets – food allergy- processed supplementary foods and novel foods.

References:

1. Dietetics (2007) by B. Srilakshmi.
2. ICMR (2010). Nutrient Requirements and Recommended Dietary Allowances for Indians
3. Text Book of Human Nutrition (2010) by Bamji
4. Essentials of Human Nutrition (2007) by A.S.Truswell.
5. Nutrition & Dietetics 3rd edition Subhangini Joshi
6. Oxford Handbook of Nutrition and Dietetics (2012) Joan Webster
7. Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd
8. IFCT (2017) Indian Food Composition Tables

SEMESTER - I

COURSE 2: HUMAN NUTRITION

Practical

Credits: 1

2 hrs/week

1. Identification of food sources for various nutrients using food composition tables.
2. Record diet of self-using 24 hour dietary recall and its nutritional analysis.
3. Introduction to meal planning, concept of food exchange system.
4. Estimation of BMI and other nutritional status parameters.
5. Planning meals for adults of different activity levels for various income groups.
6. Survey of locally available foods and identifying the key nutrients
7. Estimation of BMI and other nutritional status parameters.
8. Formulation of weaning foods
9. Planning and preparation of diets for aged people

4- Year UG Honours, Major
Syllabus
(2025-26)
Semester-I

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V