

FOOD SCIENCE - II

Sem	Subject Code	Category	Lecture		Theory		Practical		Credits
II	21CNF2A	Core paper II	Hrs/sem	Hrs/Per week	Hrs/sem	Hrs/Per week	Hrs/sem	Hrs/Per week	4
			75	5	75	5	-	-	

COURSE OBJECTIVES

The students will be able to

1. To know the basic concepts about different foods and nutrients.
2. To develop the scientific attitude of the students towards the principle of food science.
3. To obtain the knowledge of composition and nutritive value of different foods.
4. To know the impact of cooking on various foods.

COURSE OUTCOMES

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

CO Number	CO Statement	Knowledge Level (K1 – K4)
CO1	Understanding the composition and nutritive value of Milk and Milk Products	K1-K2
CO2	Understanding the composition and nutritive value of Fleshy foods	K1-K2
CO3	Understanding the composition and nutritive value of Eggs, Fats and Oils	K1-K2
CO4	Understanding the composition and nutritive value of Sugar and its Products, Spices and Condiments	K1-K2
CO5	Understanding the composition and nutritive value of Beverages. To become proficient for specialization in nutrition	K3-K4

Knowledge level: K – Remember, K2 – Understand, K3 – Apply, K4 – Analyse.

MAPPING WITH PO

COS	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	M	M
CO2	S	S	S	M	M
CO3	S	S	S	M	M
CO4	M	M	M	M	M
CO5	M	S	M	S	S

S – Strong, M – Medium, L – Low

UNIT I**15 Hours**

Milk and milk products – Composition and nutritive value, Principles of milk cookery, Milk protein, coagulation, problems in milk cookery. Effect of cooking and processing on milk. Milk products- Non fermented and fermented products (does not include preparation); Role of milk in cookery.

UNIT II**15 Hours**

Meat – Nutritive values, methods of cooking – Post mortem changes in meat, factors affecting tenderness – organ meat.

- a) **Fish** – classification, Nutritive value – selection, methods of cooking
- b) **Poultry** –Classification,Composition and Nutritive value.

UNIT III**15 Hours**

- a) **Eggs** – Structure, composition, Nutritive value, selection, uses of eggs in cookery, methods of cooking eggs.
- b) **Fats and oils** – Types – Saturated, MUFA, PUFA, Hydrogenation – Invisible fats – smoking point – Rancidity.

UNIT IV**15 Hours**

Sugar and sugar related products – Jaggery - Nutritive value, characteristics and uses of various types of sugars; Sugar cookery- Crystallization and factors affecting crystallization; Stages of sugar cookery; Role of sugar in cookery.

- a) **Spices and Condiments** – Role of spices in cookery and its medicinal Uses.

UNIT V**15 Hours**

Beverages – Beverages: Classification; Coffee beverage- Constituents and method of preparation; Tea-Types, preparation; Cocoa- Composition, nutritive value and preparation of cocoa beverage; Fruit beverages Types; Introduction to vegetable juices, milk based beverages, malted beverages, carbonated non alcoholic beverages and alcoholic beverages.

TEXT BOOKS:

S.No.	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
	B.Srilakshmi	Food Science	New Age International Private Ltd.,	2002
2.	Swaminathan	HandBook of Food Science and Experimental Foods	Bappco, Bangalore	1992
3.	N. ShakuntalaManay, M. Shadaksharaswamy	Foods and Principles	New Age International Publishers	2001

4.	Mudambi, S.R. Rao, S.M	Food Science	Wiley Eastern Ltd, New Delhi	1986
5.	Potter, N. and Hotch Kiss, J.H.	Food Science	CBS Publishers and Distributors, New Delhi	1996

REFERENCE BOOKS:

S.No.	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1.	Helen Charley	Food Science	Wiley Eastern Ltd, New Delhi	1986
2.	A.G. Peckam	Foundation of Food Preparation	CBS Publishers and Distributors, New Delhi	1996
3.	NIIR Board	Handbook on Fruits, vegetables & Food processing with canning & preservation, 2nd edition,	Asia pacific business press inc., Delhi-7.	-
4.	Mudambi, R.S. and Rajagopal, M.Y	Fundamentals of Food and Nutrition	Wiley Eastern Limited New Delhi	1991
5.	Potter. N.M.and Birch, G.G	Food Science, 5th edition	CBS Publishers and Distributors, New Delhi	2007

WEB SOURCES:

1. <https://www.cbsenetonline.in/updated-cbse-ugc-net-syllabus-for-home-science>