

**FSN 1201**

**HOME FOOD CATERING  
(Life Skill Course)**

**(3hrs/wk) (2cr)**

This course will provide the students to face the challenges of the food industry and provide theoretical knowledge along with practical skill for proper motivation to build a career in the Hotel industry.

**OBJECTIVES:**

- To Gain knowledge about various types of food services.
- Gain knowledge about the Principles and functions of Management.
- To understand about personnel Management, financial management and legal aspects of catering.
- To realise the importance of sanitation and hygiene in food service institutions.

**UNIT-I Food production:** Menu planning - Importance - Factors affecting menu planning, different kinds of food service units - Food Purchase and Storage. Quantity Food Production- Standardization of recipes, quantity food preparation techniques, recipe adjustments and portion control. Hygiene and Sanitation.

**UNIT-II Kitchen organization and layout:** General layout of kitchen in various organizations - receiving and preparation area - storage area- cooking areas - service and washing areas - obtaining supplies.

**UNIT-III Resources management:** Money-Manpower-Time-Facilities and equipment-Utilities.

**UNIT-IV Sanitation and safety:** Sanitation of plant, kitchen, hygiene, personal hygiene, garbage disposal, pest control - Health and safety at work, causes and types of accidents, accordance and applications

**UNIT -V Planning of a Food Service Unit:** Preliminary Planning-Survey of types of units, identifying clientele, menu operations and delivery. Planning the set up-Identifying resources, developing Project plan, determining investments.

**Text Books:**

1. Bessie WB and Lavelle W (1988) Food Service in Institutions. Sixth Edition. Macmillian Publishing Company New York.
2. Mohini S (2005) Institution Food Management. New Age International Publishers. New Delhi.

**References:**

1. Thangam Philip (2008) Modern Cookery for Teaching and Trade. Part I & II Orient Longman, Chennai.

Taneja S and Gupta SL (2001) Entrepreneurship Development. Galgotia Publishing, Delhi.  
**FSN 1202**

**ETHNIC FOODS**

**(3hrs/wk) (2cr)**

**(Life Skill Course)**

This course deals with the nutritional, social, cultural, economic and health effects of traditional foods.

**OBJECTIVES:**

- To understand the historical perspective of nutrient requirements.
- To learn to critically evaluate the methodology and derivation of requirements for specific macronutrients.
- To appreciate importance of nutrition immunity interactions and their implications.
- To learn various measures for enhancing nutritional quality of diets.
- To stay updated with emerging concepts in nutrition.

**UNIT-I Traditional food style:** History–Concept and Principles of Traditional Foods–Benefits and nutritional content of Traditional Foods.

**UNIT-II Traditionally fermented foods:** Unsweetened yogurt, kefir, dahi, lassi, shrikhand, miso, kimchi, kombucha, tempeh, pickles and sauerkraut – processing methods, nutritional benefits and therapeutic uses

**UNIT-III Healthy aspects of traditionally foods:** National health benefits - impacts of consuming traditional foods.

**UNIT-IV Traditional methods of cooking and preservation:** Introduction - cooking techniques -conventional cooking - dry cooking - wet cooking - thermal processing – effect of time and temperature - equipments.

**UNIT-V Traditionally fermented fruits and vegetables:** Cucumber, onion, olives, carrot, caper berries, pickled garlic - safety and regulations.

**Text book:**

1. Kristbergsson K and Oliveira J (2016) Traditional foods: General and Consumer Aspects. Springer, New York.

**References:**

1. Pathak YV, (2011) Handbook of Nutraceuticals, Volume 2, CRC Press. USA
2. Prakash V and Bellosso OM (2015) Regulating safety of traditional and ethnic foods. Academic Press, Elsevier, USA.

**FSN 1211**

**BASIC NUTRITION**  
**(Non-Major Elective)**

**(3hrs/wk)(2cr)**

This course provides an overview of the major macronutrients relevant to human health. They gain knowledge on dietary sources, intake levels, physiological role, and requirement of major

nutrients on human body. They also attain knowledge about major nutrition-related deficiency conditions.

### **OBJECTIVES:**

- Understand the relationship between nutrition and human well being
- Know and understand the functions, importance of all nutrients for different age group and special group.
- Understand critical periods in growth and development and impact of malnutrition on it.
- Understand the demographic transition and its implications on the quality of life.
- Learn to critically evaluate the methodology and derivation of requirements for specific micronutrients.

**UNIT-I Introduction to nutrition:** Definition of nutrition- food, health, nutritional status, malnutrition, over nutrition, under nutrition, functions of food, balanced diet, food pyramid, ICMR Basic five food groups.

**UNIT-II Macro nutrients:** carbohydrates-composition, classification, functions, food sources. Dietary fibre-Functions, food sources, Deficiency. Lipids and fats- definition, composition, classification, functions, Deficiency, sources-Proteins, Definition, composition, classification, functions, deficiency, sources.

**UNIT-III Micronutrients:** vitamins-, definition, classification, functions of vitamins Nomenclature, functions, deficiency & sources of vitamins A, D, E, K Nomenclature, functions, deficiency & sources of vitamins B1, B2, B3, folic acid, B6, B12

**UNIT-IV Minerals:** definition, functions and classification, Nomenclature, functions, deficiency sources of calcium, Iron, Zinc, phosphorus, iodine, fluorine, sodium

**UNIT-V Water:** Distribution of water & electrolytes, functions, requirements, sources, water balance, water depletion, water excess.

### **Text Books:**

1. Mudambi SR and Rajagopal MV (1997) Fundamentals of Foods and Nutrition. New Age International (P) Ltd, Publishers. Delhi.
2. Srilakshmi B (2004) Nutrition Science. New Age International (P) Ltd, Publishers. Delhi.
3. Swaminathan M (1999) Essential of Food and Nutrition. Vol I and II, Bappco publications, Madras.

### **References:**

1. Kango M (2005) Normal Nutrition, Curing diseases through diet. First Edition CBS Publications. Delhi.
2. Paul S (2003) Text Book of Bio-Nutrition, Fundamental and Management. RBSA Publishers.
3. Williams SR (2000) Nutrition and Diet Therapy. Sixth Edition C.V. Melskey Co. Delhi

### (Non-Major Elective)

This course imparts knowledge in the field of clinical nutrition to make appropriate dietary modifications for various disease conditions based on the pathophysiology. They develop capacity and aptitude in taking up dietetics as a profession by understanding the consequences of nutritional problems in the society to create awareness on community nutrition-based programmes.

#### OBJECTIVES:

- To Understand causative factors and metabolic changes in various disease/disorders
- To Gain knowledge of the principles of diet therapy and dietary counselling
- To Understand the rationale of prevention of various diseases/disorders
- To Plan and prepare suitable therapeutic diets based on patient needs for various diseases/disorders
- To Prepare special therapeutic / health foods.

**UNIT-I Therapeutic diets:** Introduction- routine hospital diet - clear fluid, full - liquid and soft diets, pre and post-operative diet. Regular normal diet. Special feeding methods -tube feeding - types of food - food requirements- parental feeding. TPN formula for children, adolescents.

**UNIT-II Diet in obesity and underweight:** Introduction-aetiology-types, complication. Regional distribution of adipose tissues - treatment-diet therapy. Principles of dietetic management. Limitation of underweight - aetiology dietary modifications.

**UNIT -III Diet in fever:** Types - causes - metabolic changes -dietary modifications. Typhoid-malaria, tuberculosis - symptoms-causes, principles of diet- dietary managements.

**UNIT-IV Diet in diabetes mellitus:** introduction-symptoms-diagnosis- types-nutritional care-meal distribution-changes - exchange list-control of diabetes-complications.

**UNIT- V Diet in cardiovascular disease:** Introduction - risk factors - nutritional plan-meal planning-heart and blood vessel diseases.

#### Text Books:

1. Garrow JS, James W PT and Ralph A (2000) Human Nutrition and Dietetics. Tenth Edition, Churchill Livingstone, London.
2. Bamji MS and Reddy V (1998) Text Book of Human Nutrition for. IBH Publishing Co. Ltd New Delhi.

#### References:

1. Antia P and Abraham P (1998) Clinical Dietetics and Nutrition, 2nd edition, Oxford University Press. New York.
2. Guthrie HA and Picciano M F (1995) Human Nutrition. Mosby, St. Louis Missouri, England.
3. Sharon M (1994) Complete Nutrition. Avery publishing group, New York.

Robinson CH and Lawler MR (1990) Normal and Therapeutic Nutrition, Seventeenth Edition, MacMillan Publishers, London

**FSN 3203**

**OBESITY MANAGEMENT**  
(Life Skill Course)

**(3hrs/wk) (2cr)**

This course describes the health risks and problems associated with obesity. It differentiates the theories of obesity through which the students will learn **the role of nutrition/diet in the treatment of obesity**. The need of physical activity and exercise are also stressed in this paper. The **behavioral theory also applies to weight loss**.

**Unit-I: Introduction to obesity:** Introduction, aetiology, genetic factors-age, sex, eating habits, physical activity, stress, endocrine factors-trauma, prosperity and civilisation. Physiology of obesity.

**Unit-II: Theory of obesity:** Fat cell theory, set point theory, Leptin. Regional distribution of adipose tissues, metabolic changes,

**Unit-III: Assessment:** Body weight Measurement-body mass index (BMI)- waist circumference-Measurement of body fat. Ponderal index, waist- hip ratio.

**Unit-IV: Treatment:** Diet therapy, principles of dietetic management - glycaemic index physical exercise, stress management, pharmacotherapy, behaviour therapy, weight loss surgery.

**Unit-V: New trends in nutrition:** Introduction-health-specific meals. Fast food-junk foods. Convenience foods-types.

**Text Books:**

1. Srilakshmi, B. (2005). Dietetics, New Age International Publishers, New Delhi
2. Swaminathan. M (1979) Food Science and Experimental foods. Ganesh and Co, Madras.
3. Sunetra Roday (2007) Food Science and Nutrition, 2<sup>nd</sup> edition, Oxford Higher Education publishers. New Delhi.

**References:**

1. Bamji, M.S, Rao, N.P and Reddy, V. (2003), Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
2. Srilakshmi, B. (2004), Nutrition Science, New Age International Pvt. Ltd, New Delhi.
3. Gibney, M.J, Margetts, B.M, Kearney, J.M and Arab, L. (2005). Public Health Nutrition, Blackwell Publishing, USA.

**FSN 3204**

**FOOD ADDITIVES**  
(Life Skill Course)

**(3hrs/wk) (2cr)**

The students will attain an in depth understanding of the Chemical additives added to a food, importance of additives in maintaining or improving food quality, to know the limits of addition as prescribed by FAO/WHO and PFA and develop knowledge on newer additives with improved safety standards.

**Unit I:Food additives:** definitions, classification and functions, need for food additives application, safety concerns, regulatory issues in India – Leavening agent, Humectants and Acidulants, pH Control agents, Buffering Salt, Anticaking agents.

**Unit II:Colouring agents:** natural colorants, applications and levels of use, Artificial Colorants sources, applications and levels of use, misbranded colors, color stabilization.

**Unit III:Flavouring agents:**flavors - natural and synthetic flavors, flavor enhancers, flavor stabilization, flavor encapsulation, Emulsifiers

**Unit IV:Sweeteners:** natural and artificial sweeteners, nutritive and non-nutritive sweeteners, properties and uses of saccharin, acesulfame-K, aspartame, corn sweeteners, invert sugar sucrose and sugar alcohols (polyols) as sweeteners in food products.

**Unit-V:Contaminants and Regulations:** Contamination in Food - Physical, chemical (heavy metals, pesticide residues, antibiotics, veterinary drug residues, dioxins, environmental pollutants, radionuclides, solvent residues, chemicals Natural toxins. Food Laws and Regulations- Codex, HACCP, ISO, FSSAI etc.

**Text Books:**

1. Food additives by Brannen A.L., Davidson P.M., Salminen S. and Thorngate J.H. Second Edition, Revised and Expanded. Marcel dekker Inc. USA, 2002.
2. Handbook of Food additives by Thomas Furia,
3. Watson, D.H. (1998) Natural Toxicants in Food, CRC Press, USA.

**References:**

1. Duffus, J.H., and Worth, H.G. J. (2006) Fundamental Toxicology, The Royal Society of Chemistry.UK.
2. Stine, K.E., and Brown, T.M. (2006) Principles of Toxicology, CRC Press. USA.
3. Tönu, P. (2007) Principles of Food Toxicology. CRC Press, USA.