

Syllabus for B.Sc. Nutrition and Dietetics

Choice Based Credit System

B. Sc. (General) (CBCS) with Nutrition and Dietetics

Semester	Subject code	Course name	Credits		
			Theory	Practical	Total
I	NAD116C	Nutrition and Dietetics: Food Science and Nutrition	4	2	6
II	NAD216C	Nutrition and Dietetics: Nutrition for the Family	4	2	6
III	NAD316C	Nutrition and Dietetics: Therapeutic Nutrition	4	2	6
IV	NAD416C	Nutrition and Dietetics: Community Nutrition	4	2	6
V	NAD519D	Nutrition and Dietetics: Nutritional Biochemistry	4	2	6
VI	NAD616D	Nutrition and Dietetics: Food Microbiology and Safety	4	2	6
Total Credits = 36					

Semester I

DISCIPLINE SPECIFIC COURSE (CORE)

NAD116C: NUTRITION AND DIETETICS: FOOD SCIENCE AND NUTRITION

CREDITS: THEORY-4, PRACTICAL-2

THEORY

UNIT I Basic concepts in food and nutrition

Basic terms used in study of food and nutrition

- ☐ Understanding relationship between food, nutrition and health
- ☐ Functions of food
 - Physiological
 - Psychological and social

UNIT II Nutrients

- ☐ Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients:
 - Carbohydrates, lipids and proteins
 - Fat soluble vitamins-A, D, E and K
 - Water soluble vitamins - thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B12 and vitamin C
 - Minerals - calcium, iron and iodine

UNIT III Food Groups

- ☐ Selection, nutritional contribution and changes during cooking of the following food groups:
 - Cereals and Pulses
 - Fruits and vegetables
 - Milk & milk products
 - Eggs , Meat, poultry and fish
 - Fats and Oils

UNIT IV Methods of Cooking and Preventing Nutrient Losses

- ☐ Dry, moist, frying and microwave cooking
- ☐ Advantages, disadvantages
- ☐ Effect of various methods of cooking on nutrients
- ☐ Minimizing nutrient losses

PRACTICAL (2 Credits)

1. Weights and measures; preparing market order and table setting
2. Food preparation, understanding the principles involved, nutritional quality and portion size
 - Beverages: Hot tea/coffee, Milk shake/ lassi, fruit based beverages
 - Cereals: Boiled rice, pulao, chapatti, parantha, puri, pastas
 - Pulses: Whole, dehusked
 - Vegetables: curries, dry preparations
 - Milk and milk products: Kheer, custard
 - Meat, Fish and poultry preparations
 - Egg preparations: Boiled, poached, fried, scrambled, omelettes, egg pudding
 - Soups: Broth, plain and cream soups
 - Baked products: Biscuits/cookies, cream cakes, sponge cake preparations, tarts and pies
 - Snacks: pakoras, cutlets, samosas, upma, poha, sandwiches
 - Salads: salads and salad dressings.

RECOMMENDED READINGS

- Mudambi, SR and Rajagopal, MV. Fundamentals of Foods, Nutrition and Diet Therapy; Fifth Ed; 2012; New Age International Publishers
- Mudambi, SR, Rao SM and Rajagopal, MV. Food Science; Second Ed; 2006; New Age International Publishers
- Srilakshmi B. Nutrition Science; 2012; New Age International (P) Ltd.
- Srilakshmi B. Food Science; Fourth Ed; 2010; New Age International (P) Ltd.
- Swaminathan M. Handbook of Foods and Nutrition; Fifth Ed; 1986; BAPPCO.
- Bamji MS, Rao NP, and Reddy V. Text Book of Human Nutrition; 2009; Oxford & IBH Publishing Co. Pvt Ltd.
- Wardlaw GM, Hampl JS. Perspectives in Nutrition; Seventh Ed; 2007; McGraw Hill.
- Lakra P, Singh MD. Textbook of Nutrition and Health; First Ed; 2008; Academic Excellence.
- Manay MS, Shadaksharaswamy. Food-Facts and Principles; 2004; New Age International (P) Ltd.
- Potter NN, Hotchkiss JH. Food Science; Fifth Ed; 2006; CBS Publishers and Distributors.
- Sethi P and Lakra P Aahaar Vigyaan, Poshan Evam Suruksha, Elite Publishing House, 2015
- Jain P et al. *Poshan va swasthya ke mool siddhant (Hindi)*; First Ed; 2007; Academic Pratibha.
- Vrinda S. *Aahaar Vigyan (Hindi)*; 2003; Shyam Prakashan
- Suri S. and Malhotra A. Food Science, Nutrition & Food Safety Pearson India Ltd. 2014.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S. Basic Food Preparation - A Complete Manual. Orient Longman, 2005.
- Khanna K, Gupta S, Seth R, Mahana R, Rekhi T. The Art and Science of Cooking. Phoenix Publishing House Private Limited, Delhi 1998.