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SEMESTER – I

MJC-1

Food and Nutrition

Course Outcomes:

CO1: Understand the relationship between food, nutrition and health

CO2: Understand the role and functions of nutrients, its composition, requirements and the effect of deficiency and excess

CO3: Understand the concept of an adequate diet and the importance of meal planning

CO4: Describe different methods of cooking and its impact on the stability of nutrients.

| MJC-1 | | Food and Nutrition | |
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| (Theory: 4 Credits) | | | |
| Unit | Topics to be covered | No. of Lectures | |
| I | Introduction to Food and Nutrition <ul style="list-style-type: none"> • Definition and terms used in Food and Nutrition • Functions of food • Concept of Balanced Diet • Malnutrition:- Types, causes, symptoms and treatment • Meal planning–steps in meal planning, factors affecting meal planning for a family • Food Exchange list, Food pyramids | 6 | |
| II | Basic concepts, classification, composition, nutritive value and role in cookery of different food groups. <ul style="list-style-type: none"> • Cereals and Cereal Products • Pulses and Legumes • Fruits and Vegetables • Salt, Sugar and Jaggery • Nuts, Oils and Oil seeds • Milk and Milk Products • Eggs, Meat, poultry and fish • Spices and Condiments -Importance and functional properties | 12 | |
| III | Macronutrients Definition, classification, dietary Sources, functions, Recommended Dietary Allowances, clinical signs and symptoms of Deficiency diseases and Excess of <ul style="list-style-type: none"> • Carbohydrates • Proteins • Lipids • Water | 10 | |

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| IV | Micro nutrients Minerals Classification, Sources, functions and deficiency of Calcium, Phosphorus, Magnesium, Sodium, Potassium, Selenium, Iron, Zinc, Iodine, Copper Vitamins Classifications, functions, sources, requirement ,clinical signs and symptoms and deficiency of: -Fat Soluble Vitamins - A, D, E and K - Water Soluble Vitamins-B Complex Vitamins- Thiamine, Riboflavin, Niacin, Pyridoxine, Folic acid, Cyanocobalamin and Vitamin C | 08 |
| V | Methods of Cooking Types, Advantages and disadvantages of cooking methods (i) Moist heat methods –boiling, simmering, steaming, & Pressure cooking (ii) Dry heat methods – baking. Microwave (iii) Fat as a medium for Coking-shallow and deep fat frying | 04 |
| | Total | 40 |

Reading List:

- Bamji, MS., Krishnasamy, K., Brahmam ,G.N.V. (2012). Text Book of Human Nutrition, 3rd Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
- Longvah, T., Ananthan, R., Bhaskarachary, K., Venkaiah, K. (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
- Maney, S. (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi.
- aina, U., Kashyap, S., Narula, V., Thomas S, Suvira., VirS., Chopra, S. (2010). Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
- Srilakshmi, B. (2017). Nutrition Science, New Age International (P) Ltd., New Delhi.
- Sunetra, Roday. (2017). Food Science and Nutrition, Oxford University Press, New Delhi.
- Usha, Chandrasekhar. (2002). Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.

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| MJC I Foods and Nutrition Practical: 2 Credits | No. of classes |
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| <p>1. Basic Cooking skills Weights and measures - standard and household measures for raw and cooked foods.</p> <p>2. Preparation of various dishes using different methods of cooking</p> <ul style="list-style-type: none">- Boiling/steaming- Roasting- Frying-Deep/shallow- Pressure cooking <p>3. Food Preparation, understanding the principles involved, nutritional quality of commonly consumed recipes in each food group</p> <ul style="list-style-type: none">- Cereals: rice, roti, paratha, poori, pastas etc- Pulses: Whole, dehusked- Dal, sambar, Chole, etc- Vegetables: Dry preparations, Curries- Milk and milk products: Kheer , Custard,- Meat, fish and poultry preparations- Egg preparations: Boiled, poached, fried, omelette <p>4. Different styles of cutting fruits and vegetables</p> <ul style="list-style-type: none">- Salad Decoration/Dressing- Table setting, Napkin Folding | <p style="text-align: center;">40</p> |

REFERENCES

- Srilakshmi B, (2007), Dietetics. New Age International publishers. New Delhi
- Srilakshmi B ,(2002), Nutrition Science. New Age International publishers. New Delhi
- Swaminathan M. (2002), Advanced text book on food and Nutrition. Volume I. Bappco.
- Gopalan. C., RamaSastry B.V., and S. C. Balasubramanian (2009), Nutritive value of Indian Foods. NIN. ICMR. Hyderabad.
- Mudambi S R and Rajagopal MV, (2008), Fundamentals of Foods, Nutrition & diet therapy by New Age International Publishers, New Delhi

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