



BHAVAN'S VIVEKANANDA COLLEGE
OF SCIENCE, HUMANITIES & COMMERCE
Sainikpuri, Secunderabad – 500094
(Reaccredited with 'A' grade by NAAC)
Autonomous College - Affiliated to Osmania University
Department of Biochemistry & Nutrition

PROGRAM NAME: B.Sc. (MICROBIOLOGY, NUTRITION & DIETETICS,
CHEMISTRY- MBNDC)
(w.e.f 2022-23)

COURSE NAME: NUTRITION AND HEALTH

PAPER CODE: GE536
YEAR/SEMESTER: III/V

PPW: 4
NO. OF CREDITS: 4

COURSE OBJECTIVE: To create and spread awareness about the importance of nutrition in health, wellbeing and fitness.

UNIT-WISE COURSE OBJECTIVES:

- COb1** To explain students the basic concepts of nutrition.
- COb2** To correlate the interdependence of diet, health and fitness.
- COb3** To familiarize the students the importance of physical activity.
- COb4** To explain dietary modifications of nutrients in diseases.

UNIT I: BASIC CONCEPTS OF NUTRITION

15 hours

1. Definition of terms- Food, nutrition and Nutrients, Functions of Food and Nutrients in general.
2. ICMR - Basic food groups and their functions, Food Pyramid, Balanced diet – definition and its importance, my Plate.
3. Inter-relationship between nutrition and health-visible symptoms of good health.
4. Methods of cooking – Moist heat, Dry heat and Combination methods. Effects of cooking on nutritive value of foods and methods to improve nutritional quality of foods.

UNIT II: CONCEPT OF HEALTH AND FITNESS

15 hours

1. Definition of health and fitness. Dimensions of health (physical, psychological, emotional and spiritual)
2. Role of nutrition in fitness, Nutritional guidelines for health and fitness.
3. Holistic approach to the management of fitness and health – Energy input and output, Energy Balance, Diet and exercise.
4. Effect of specific nutrients on work performance and physical fitness.

UNIT III: PHYSICAL ACTIVITY

15 hours

1. Nutrition, exercise, physical fitness and health interrelationship.
2. Importance and benefits of Physical activity.
3. Physical Activity- Guidelines and physical activity pyramid and its significance in relation to health.
4. Diet and exercise for weight management

UNIT IV: DIET IN THERAPY

15 hours

1. Importance of Nutritional supplements and Functional foods (carbohydrate based functional foods, functional proteins and functional lipids) to support health.
2. Indications of dietary modification and their importance.
3. Foods to be included and avoided for Liquid and Soft diet
4. Nutrient modification of diets and their importance, foods to be included and avoided- High and Low calorie diet, High and Low protein diet, High and low fibre diet, High and Low fat diet and Low sodium diet.


REFERENCES:


1. Sumati R. Mudambi - Fundamentals of Foods, Nutrition and Diet therapy, 6th Edition, New Age International Publishers, New Delhi.
2. Srilakshmi B- Food Science, 5th Edition, New Age International Publishers, New Delhi - 110002, 2011.
3. Srilakshmi B - Dietetics, 5th edition, New Age International publishers, 2002. Reference Books

COURSE OUTCOMES:

At the end of the course students will be able to:

- GE536.CO1** Implement the nutritional concepts in daily life.
GE536.CO2 Apply the interrelations of diet, health and fitness as a routine.
GE536.CO3 Interpret the necessary inclusions of physical activity in day to day life.
GE536.CO4 To plan diets based on nutrient specificity.


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