



**M. C. E. Society's**

**Abeda Inamdar Senior College**

Of Arts, Science and Commerce, Camp, Pune-1

(Autonomous) Affiliated to Savitribai Phule Pune

University NAAC accredited 'A' Grade

**Course in Health & Nutrition (Autonomy)**

**For SYBSc, BCA (Science), SYBSc (Computer Science)**

**CGPA course (21SBHENT23)**

**Under**

**BOS in Life Sciences**

**Academic year: 2022-2023**

<b>Course Title</b>	<b>Health &amp; Nutrition</b>
<b>Course Code</b>	21SBHENT23
<b>Semester</b>	III
<b>No. of Credits</b>	2 (30 Lectures)

**Aims & Objectives of the Course**

<b>Sr. No.</b>	<b>Objectives</b>
<b>1.</b>	To enable students to understand and gain theory & practical knowledge on different food groups and their nutritive value
<b>2.</b>	To enable students to understand and gain theory & practical knowledge on importance of Balanced Diet and its components
<b>3.</b>	To enable the student to understand and gain theory & practical knowledge on Role of Vitamins in our daily diet.
<b>4.</b>	To enable the students to gain knowledge of the role of micro-organisms in health, mode of infection and diseases.
<b>5.</b>	To enable the students to gain knowledge of the role of therapeutic role of food

### Expected Course Specific Learning Outcomes

Sr. No.	Learning Outcome
1.	Students will understand the importance of the subject in day today's life, thus understanding the basics of health and nutrition
2.	Students will be able to interpret and apply nutrition concepts to evaluate and improve the nutritional health of communities.
3.	Students will be able to integrate knowledge and skills in food and nutrition
4.	Students will be able to examine and evaluate the relationship between food and nutrition in health and/or illness

### Course Syllabus:

Credit	Topics	Allotted Lectures
I)	<b>HEALTH</b> <ul style="list-style-type: none"> <li>• Concept of Health &amp; Diseases</li> </ul>	(18)
	<b>A) Health</b> <ul style="list-style-type: none"> <li>• Definition of health</li> <li>• Determinants of Health</li> <li>• Health graph</li> </ul>	02
	<b>B) Diseases</b> <ul style="list-style-type: none"> <li>• Concept of disease</li> <li>• Types of Diseases- Epidemic, Pandemic, Sporadic</li> <li>• Infection, Intoxication, Disorders</li> </ul>	02
	<b>C) Sources of Infection</b> <ul style="list-style-type: none"> <li>• Air</li> <li>• Food/ Water</li> <li>• Animals</li> <li>• Soil</li> </ul>	03
	<b>D) Mode of Transmission of Diseases</b>	03

	<ul style="list-style-type: none"> <li>• Contact</li> <li>• Inhalation</li> <li>• Inoculation</li> <li>• Vertical Transmission</li> <li>• Vector</li> <li>• Fomites</li> <li>• Carriers</li> </ul>	
	<b>E) Disease Control and Prevention Methods</b> <ul style="list-style-type: none"> <li>• Controlling Infectious Diseases Within Communities</li> <li>• Chemoprophylaxis</li> <li>• Immunoprophylaxis</li> </ul>	03
	<b>F) Vaccination</b> <ul style="list-style-type: none"> <li>• History of vaccination</li> <li>• Types and of Vaccines</li> <li>• Significance of Vaccination</li> <li>• National Immunization Schedule</li> </ul>	02
	<b>G) Exercise &amp; Health</b> <ul style="list-style-type: none"> <li>• Types of Exercises</li> <li>• Benefits of Exercise</li> <li>• Exercise as therapy</li> </ul>	03
<b>II)</b>	<b>NUTRITION</b> <ul style="list-style-type: none"> <li>• <b>Basic concepts in Food &amp; Nutrition</b></li> </ul>	<b>(18)</b>
	<b>A) Nutrition</b> <ul style="list-style-type: none"> <li>• Definition &amp; Concept</li> <li>• Nutrition Pyramid</li> <li>• Understanding relationship between food, nutrition and health</li> <li>• Functions of food- Physiological, psychological and social</li> </ul>	05
	<b>B) Role of the following Nutrients</b> <ul style="list-style-type: none"> <li>• Carbohydrates, lipids and proteins</li> </ul>	05

	<ul style="list-style-type: none"> <li>• Fat soluble vitamins- A, D, E and K</li> <li>• Water soluble vitamins- Thiamin, Riboflavin, Niacin, Pyridoxine, Folate, Vitamin B12 and Vitamin C</li> <li>• Minerals- Calcium, Iron and Iodine</li> <li>• Micronutrients</li> </ul>	
	<b>C) Food Groups</b> <ul style="list-style-type: none"> <li>• Cereals</li> <li>• Pulses</li> <li>• Fruits and vegetables</li> <li>• Milk and milk products</li> <li>• Meat, poultry and Fish</li> <li>• Fats and Oils</li> </ul>	05
	<b>D) Food As Therapy</b> <ul style="list-style-type: none"> <li>• Foods with medicinal properties</li> <li>• Treating deficiency related disease</li> <li>• Healthy food choices</li> </ul>	03
	<b>Total Lectures</b>	<b>36</b>

**Examination:**

Internal Assessment	20 marks
External proctored examination	30 marks

**Internal Assessment methods:**

- Internal paper (Objective)
- Assignments
- Project based on Diet charts for different health issues like Diabetes, Cancer patients, Blood Pressure etc.

## References:

- 1) Mudambi, SR and Rajagopal, MV. Fundamentals of Foods, Nutrition and Diet Therapy; Fifth Ed; 2012; New Age International Publishers
- 2) Park and Park Park's Textbook of Preventive and Social Medicine, Book by K. Park
- 3) Mudambi, SR, Rao SM and Rajagopal, MV. Food Science; Second Ed; 2006; New Age International Publishers
- 4) Srilakshmi B. Nutrition Science; 2012; New Age International (P) Ltd.
- 5) Srilakshmi B. Food Science; Fourth Ed; 2010; New Age International (P) Ltd.
- 6) Swaminathan M. Handbook of Foods and Nutrition; Fifth Ed; 1986; BAPPCO.
- 7) Bamji MS, Rao NP, and Reddy V. Text Book of Human Nutrition; 2009; Oxford & IBH Publishing Co. Pvt Ltd.
- 8) Wardlaw GM, Hampl JS. Perspectives in Nutrition; Seventh Ed; 2007; McGraw Hill.
- 9) Lakra P, Singh MD. Textbook of Nutrition and Health; First Ed; 2008; Academic Excellence.
- 10) Manay MS, Shadaksharaswamy. Food-Facts and Principles; 2004; New Age International (P) Ltd.
- 11) Potter NN, Hotchkiss JH. Food Science; Fifth Ed; 2006; CBS Publishers and Distributors.
- 12) Sethi P and Lakra P Aahaar Vigyaan, Poshan Evam Suruksha, Elite Publishing House, 2015
- 13) Jain P et al. Poshan va swasthya ke mool siddhant (Hindi); First Ed; 2007; Academic Pratibha.
- 14) Vrinda S. Aahaar Vigyan (Hindi); 2003; Shyam Prakashan
- 15) Edelstein S, Sharlin J (ed). Life Cycle Nutrition- An Evidence Based Approach; 2009; Jones and Barlett Publishers.
- 16) Khanna K et al. Textbook of nutrition and dietetics; 2013; Phoenix Publisher.
- 17) Sharma S, Wadhwa A. Nutrition in the community- A textbook; 2003; Elite Publishing House Pvt. Ltd.
- 18) Jain P et al. Poshan va swasthya ke mool siddhant (Hindi); First Ed; 2007; Academic Pratibha.