

AC – 20/05/2025

Item No. – 6.18 (N) (1a) Sem. III

As Per NEP 2020

University of Mumbai



Syllabus for Basket of OE Vertical 3

Faculty of Science

Board of Studies in Biochemistry

Second Year Programme

Semester

III

Title of Paper

Credits

I) Basics of Food and Nutrition

2

From the Academic Year

2025-26

Title of Paper: Basics of Food and Nutrition

Sr. No.	Heading	Particulars
1	Description of the course : Including but Not limited to :	This course provides an introduction to the fundamental principles of food science and nutrition, focusing on the essential nutrients required for human health. Students will explore the role of diet in promoting well-being, prevent diseases, and the importance of balanced nutrition in various life stages.
2	Vertical :	Open Elective
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: (List some of the course objectives) 1. This course will enable the student to learn about various food groups, balanced diet, function of various nutrients and their sources. 2. The learner will also be able to provide an understanding of role of therapeutic nutrition for the management of various diseases.	

8	Course Outcomes: After the completion of the course, the learner would be able to: 1. Comprehend the relationship between food and energy and explain the function of proximate principles 2. Apply the knowledge of food in diet planning 3. Assess and explain the different nutritional deficiencies.
9	Modules:- 2, Credits: 2 Module 1: Understanding Food Nutritional significance, sources and functions: Carbohydrates, Protein, Lipids, Vitamins, Minerals and Water Food calorimetry-calorific value by Bomb calorimeter, calorific values of proximate principles Definition-Calorie and Joule Concept of BMI, BV and PER. BMR- definition, factors affecting BMR, significance of BMR in health and disease SDA - General concept and significance Numerical problems based on above concepts Module 2: Understanding Dietetics Diet and Meal Planning: Balanced Diet Food groups Food Guide Pyramid, Meal planning, Meal Pattern, Selection of adequate diet based on calorific intake & lifestyle Nutritional Disorders- Malnutrition, PEM, Kwashiorkor, Marasmus, Overnutrition, Iron Deficiency, Vitamin Deficiencies Comparative account of Functional foods, nutraceuticals & supplements
10	Text Books: 1. SrilakshmiB. (2018). Nutrition Science, 6th ed. New Delhi: New Age International Publishers 2. Subalakshmi, G and Udipi, S.A.(2021),“Food processing and preservation”, 2nd Edition, New Age International Publishers, New Delhi.

11	Reference Books: 1. Shubhangini Joshi, Nutrition and Dietetics TataMcgraw Hill Co. Ltd. 5th Ed. 2021 2. Manay, N.S. Shadaksharaswamy, M. (2004), “Foods- Facts and Principles”, 2nd Edition, New Age International Publishers, New Delhi																						
12	Internal Continuous Assessment: 40%	External, Semester End Examination 60% Individual Passing in Internal and External Examination																					
13	Continuous Evaluation through: Quizzes, Class Tests, presentation, project, role play, creative writing, assignment etc.(at least 3)																						
14	Format of Question Paper: for the final examination Evaluation for <u>Open Elective Course</u>: 50 Marks each Course 1 – 50 marks The evaluation of these courses would include continuous evaluation (internal assessment) and Semester end examinations (External assessment). The evaluation pattern would be as follows: Internal assessment of each course: 20 marks. a. Class test 1: 10 marks b. Quizzes, presentation, project, role play, creative writing, assignment etc. 5 marks c. Attendance and active participation in academic and co-curricular activities: 5 marks. External assessment of each course: – 30 Marks. ▪ Duration: 1 Hour per course ▪ Theory question paper pattern: <table><tr><td>Question</td><td>Based on</td><td>Options</td><td>Marks</td></tr><tr><td>Q.1</td><td>Unit I</td><td>Any 5 out of 7 / Any 2 out of 3</td><td>10</td></tr><tr><td>Q.2</td><td>Unit II</td><td>Any 5 out of 7 / Any 2 out of 3</td><td>10</td></tr><tr><td>Q3.</td><td>Unit I and II</td><td>Any 5 out of 7 / Any 2 out of 3</td><td>10</td></tr><tr><td></td><td></td><td>Total</td><td>30</td></tr></table>			Question	Based on	Options	Marks	Q.1	Unit I	Any 5 out of 7 / Any 2 out of 3	10	Q.2	Unit II	Any 5 out of 7 / Any 2 out of 3	10	Q3.	Unit I and II	Any 5 out of 7 / Any 2 out of 3	10			Total	30
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		Total	30																				

Sd/-
Sign of the BOS
Chairman
Dr. Samidha
Pawaskar
Coordinator
BOS in Biochemistry

Sd/-
Sign of the
Offg. Associate Dean
Dr. Madhav R. Rajwade
Faculty of Science &
Technology

Sd/-
Sign of the Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology