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| **Program: Bachelor of Management Studies (2023-24)** | **Semester : I**I |
| **Course: Health & Nutrition** | **Course Code:**  |
| **Teaching Scheme**  | **Evaluation Scheme**  |
| **Lecture (Hours per week)**  | **Practical (Hours per week)**  | **Tutorial (Hours per week)**  |  **Credit**  | **Continuous Assessment (CA)**  | **End Semester Examination (ESE)**   |
| **02** | **-** | **-** | **02** | **20** | **30** |
| **Learning Objectives:** A healthy diet is essential for good health and nutrition. It protects against many chronic non-communicable diseases, such as heart disease, diabetes and cancer. Eating a variety of foods and consuming less salt, sugars and saturated and industrially-produced trans-fats, are essential for healthy diet. Diet is a basis of life as well as the remedy for variety of diseases. This syllabus would give an insight into use of different diet as a therapy in different stages of growth as well as conditions. The learner will be aware of the basic concepts of nutrition and balanced diet. Also the learner will get acquainted with the proximate principles, basic biomolecules and their role in dietary management. The learners will also be briefed about the energy requirement for different physical activities and importance of basal metabolic rate. They will gain knowledge about the calorific values of biomolecules and their recommended dietary allowances. The functional foods are of importance in today’s world as they explain the scientific reasons of traditional foods. Also functional foods can be derivatized into nutraceuticals for betterment of human health. This course will throw light on this aspect as well. |
| **Course Outcomes:** After completion of the course, learners would be able to:  **CO1:** Understand the basic concepts of nutrition and nutrients, their important sources and functions.**CO2:** Describe the food pyramid and its importance in diet.**CO3:** Analyse the role of nutrients in diet.**CO4:** Apply the knowledge of diet management and therapy for better health.  |
| **Outline of Syllabus: (per session plan)**  |
| **Module**  | **Description**  | **No of hours**  |
| 1  | Key Concepts of Nutrition   | 10 |
| 2  | Dietetics and Diet Management  | 10 |
| 3 | Diet Therapy | 10 |
|   | **Total**  | **30**  |

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| **Module**  |  **Nutrition for Health**  | **No. of Hours/Credits 30/2**  |
| **1**  | **Key Concepts of Nutrition**  | **10**  |
|   | Introduction to Nutrition and Energy metabolism Proximate principles, RDA vs EARReference man and womanUnit of energy- calorie, joule, InterconversionCalorific value of foods  BMR– definition, factors affecting BMRBMISDA - General concept and significance*Types, Sources and functions of*:1. Carbohydrates
2. Proteins
3. Lipids
4. Vitamins
5. Minerals

Significance of water in nutrition  | 5 5 |
| **2**  | **Dietetics and Diet Management**  | **10** |
|   | Food pyramidFood Exchange ListBasic principles of a balanced diet Steps involved in meal planning Importance and benefits of balanced diet*Diet Management and therapy  for-*(a) Infant   (b) Adoloscent  (c) Adult    (d) Obesity  (d) Sports    |  55 |
| **3** | **Diet Therapy** | **10** |
|  | *Dietary interventions to correct and/or manage:*gastrointestinal diseases (indigestion, peptic ulcer, constipation, diarrhea, steatorrhea, irritable bowel syndrome)Functional foods-based diet therapy for diabetes, cardiovascular disease and cancerFortification of foodsNormal flora of human gutProbioticsFunctional foods and nutraceuticals Anthropometric measurements | 55 |

**RECOMMENDED READING:**

**Essential Reading:**

Shubhangini Joshi Nutrition and dietetics 4th edition McGraw-Hill Publications

1. Antia F P, Clinical Dietetics and Nutrition, 4th edition, 1997, Oxford university press,

 New Delhi

1. B. Srilaxmi, Nutrition science,, 4th edition, New age international (P) Ltd

**Suggested Reading:**

1. Understanding Nutrition -Whitney P.N. and Roes S.R., West Publication Co, 1996
2. U. Satyanarayanan, Biochemistry, Books & allied (P) Ltd., Kolkata, 3rd edition
3. B. Srilaxmi, Dietetics, 4th edition, New age international (P) Ltd
4. Sawhney, S.K. and Singh, Randhir, Introductory Practical Biochemistry, 1st edition

 Narosa Publishing House

1. A.C. Deb Fundamentals of Biochemistry-New Central Book agency-9th Edition

Any other reference sources as recommended by the course instructor

**Total Marks allotted: 50 marks**

1. **Details of Continuous Assessment (CA)**

40% of the total marks per course.

Marks allotted for CA is **20 marks.**

Breakup of the 20 Marks is as follows:

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| **Continuous Assessment** | **Details** | **Marks** |
| **Component 1 (CA-1)**  | Internal class test (online or offline)* 2 Class tests will be taken for each course
* Marks scored will be computed as the Average of the marks scored by the learner in the 2 Class tests carrying 10 Marks each
 | **10 marks** |
| **Component 2 (CA-2)** | Presentations/Project Work/ Viva-Voce/ Book Review/ Field visit & its presentations/ Entrepreneurship Fair/ Documentary filming/ Assignments/ Group Discussions Etc. | **10 marks** |

**b) Details of Semester End Examination (SEE)**

60% of the total marks per course.

Marks allotted for SEE is **30 Marks.**

Duration of examination will be **One Hour.**

**QUESTION PAPER FORMAT**

 All Questions are compulsory

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| **Q. No.** | **Particulars** | **Marks** |
| Q.1. | 1. Answer in brief

OR B) Answer in brief |  8   |
| Q.2. | 1. Answer in brief

OR B) Answer in brief |  8   |
| Q.3. | 1. Answer in brief

OR B) Answer in brief |  8   |
| Q.4. | Case study/application based questions |  6 |



Signature Signature

(Program Chairperson & Vice Principal) (Principal)