



Loyola Academy, Old Alwal, Secunderabad-500010

## NUTRITION AND DIETETICS (GE-3) (ID)

Credits: 2

Subject code: G21FSIT

Semester: III

No. of Lecture hours: 30

**Objective:** To impart the knowledge of food science, nutrition and dietetics.

**Outcomes:**

- CO1: The students will classify food in relation to health as a source of nutrition.  
CO2: Students will identify various principles and methods of presentation.  
CO3: Students will be able to create knowledge on energy value of foods.  
CO4: Students will be able to identify various deficiency disorders due to imbalance of nutrition.  
CO5: Students will be able to construct various diet plans.

### UNIT-I

#### Introduction to Food Science

- |   |      |
|---|------|
| • Food -Definition, importance, functions, classification based on origin and function. | 6Hrs |
| • Food in relation to health and a source of nutrients.                                 | 1Hr  |
| • Cooking - Objectives and importance   | 1Hr  |
| • Preliminary preparations  | 1Hr  |
| • Processing and preservation.  | 2Hrs |

### UNIT-II

#### Principles and methods of preservation

- |   |      |
|---|------|
| • Principles of preservation  | 6Hrs |
| • Methods of food preservation, Advantages and limitations            | 1Hr  |
| • Preservation by high temperature, low temperature                   | 1Hr  |
| • Preservation using sugar (syruping) and salt (brining), carbonation | 2Hrs |
| • preservation by chemicals, Preservation by use of radiation.        | 1Hr  |

### UNIT-III

#### Introductory Nutrition

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|--|------|
| • Introduction to Nutrition, nutrients, health             | 6Hrs |
| • Proximate principles                                     | 1Hr  |
| • Classification of nutrients as macro and micro nutrients | 1Hr  |
| • Energy value of foods                                    | 2Hrs |
| • Energy requirements.                                     | 1Hr  |

### UNIT-IV

#### Nutrients and deficiency disorders

- |  |      |
|--|------|
| • Importance of carbohydrates                            | 6Hrs |
| • Importance of proteins                                 | 1Hr  |
| • Importance of lipids                                   | 1Hr  |
| • Importance of vitamins and minerals                    | 1Hr  |
| • Disorders due to deficiency or imbalance of nutrients. | 1Hr  |

*Kwagharay*  
Chairman



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## UNIT-V

### Diet Planning

6Hrs

- Balanced diet- importance, Principles of planning diets 2Hrs
- RDA- Definition, Factors affecting RDA 1Hr
- Steps in making menu 1Hr
- Food guide 1Hr
- Food group systems ICMR food group system 1Hr

### SUGGESTED READING

1. Meyer LJ (1989). Food Chemistry (1st ed.), New Delhi : CBS Publisher
2. Swaminathan M (1997). Food Science and Experimental Foods. Madras : Ganesh & Co.
3. Maney Shakuntala (1987). Foods, Facts and Principles. New Delhi: Wiley Eastern.

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