

St. Aloysius (Autonomous) College, Jabalpur
Department of Chemistry

<i>Class</i>	<i>Course Type</i>	<i>Course Code</i>	<i>Course Title (Theory/Practical)</i>	<i>Marks</i>	
B.Sc. III Semester	Vocational	V1-CLN-NUTT	Nutrition and Dietetics	Max: 100	Min: 33

Course objectives:

- To evaluate the food and food products and evaluate their nutritional value
- To apply nutritional concepts in diet planning
- To understand and apply the concept of RDA, BMI and balanced diet in healthmanagement

Course Content:

Module-1 Introduction to food and nutrition

Definition of food, Functions of food, Food groups, Food guide pyramids, Food in relation to health, Definition of Nutrition, Assessment of nutritional status, Optimum or adequate nutrition, Good nutrition under nutrition, Malnutrition, Nutrients Definition, Type of Nutrients- Energy carbohydrate protein fat vitamins and minerals water(sources functions and deficiency symptoms)

Module-2 RDA (Recommended Dietary Allowances ICMR 2020)

General principle of deriving RDA, Practical applications of RDA, Indian standards for height and weight BMI (body mass index)

Module-3 Meal planning

Definition, Principle of meal planning, Menu-introduction and concept, Format for menu plant

Module-4 Nutrition Education

Nutrition and health education program (in brief), Tools of Nutrition education

Module-5 Introduction to Dietetics and Dietitian

Definition of dietetics, Area of dietetics, Role and responsibility of dietitians, Career opportunities as Dietitian

Course Outcomes: After studying this course students will be able to:

- Understand the relationship between food, nutrition and health
- Understand the various functions of food and food groups
- Understand digestion, absorption and functions of various nutrients and their sources
- Understand importance of balanced diet to reduce risk of deficiency disease

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B.Sc. III Semester	Vocational	V1-CLN-NUTT	Nutrition and Dietetics (Practical)	Max: 100	Min: 35

Course objectives:

- To evaluate the food and food products and evaluate their nutritional value
- To apply nutritional concepts in diet planning
- To understand and apply the concept of RDA, BMI and balanced diet in healthmanagement

Course Content:

Part- I.

1. Identification of different foods
2. Prepare a chart of food guide pyramid
3. Prepare chart of different nutrients according to their sources and deficiency

Part- II Prepare height and weight chart for Indians (Male and Female)

Part-III Household measures weight and measure of raw and cooked food

Part-IV Preparation of pamphlets deflect for health education programs

Part-V Interaction with Dietitian working in:-Hospital, Wellness Centre ,Gym , NRC (NutritionRehabilitation Centre)

Course Outcomes:

After studying this course students will be able to:

- Understand the relationship between food, nutrition and health
- Understand the various functions of food and food groups
- Understand digestion, absorption and functions of various nutrients and their sources
- Understand importance of balanced diet to reduce risk of deficiency diseases.

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Class	Course Type	Course Code	Course Title (Theory/Practical)	Marks	
				Max:	Min:
B.Sc. III Year	Vocational	V2-CLN-NUTT	Management of Nutrition in Life Cycle	100	33

Course objectives:

- To evaluate their nutritional value at different age groups
- To apply nutritional concepts in diet planning
- To understand the importance of diet at all age categories

Course Content:

Module-1 Dietary Management for different age group

- (a) **Dietary Management:** Introduction to Dietary Management, Factors affecting Dietary Management, recommended Dietary Allowances (RDA), Translating RDA into daily food intake.
- (b) **Food and our body:** Body composition, Choice of food, Calorie value of food, dietary modification

Module-2 Dietary Management for Childhood

- (a) **Dietary Management for Early Childhood:** Nutritional requirement, Nutrition related problems, Feeding patterns, Special deficiency diseases
- (b) **Dietary Management for School going Children:** Nutritional requirement, Importance of school snacks and lunch tiffin, Nutrition related problems

Module-3 Dietary Management for Adolescent, adults and old aged

- (a) **Dietary Management for adolescence:** Physiological changes during adolescent period, Nutritional requirement, Food likes and dislikes, Factors influencing food habits, Nutrition problems related to adolescent
- (b) **Dietary Management for adults:** Nutritional requirement, Food adequacy, Low cost balanced diet
- (c) **Dietary Management for old age:** Nutritional requirement, Food requirement, Nutrition related problems for old age

Module-4 Dietary Management for Pregnancy and Lactation

- (a) **Diet during pregnancy:** Nutritional requirement, Complications, Physiological changes
- (b) **Diet during lactation:** Nutritional requirement, Food taboo during lactation, lactogenic diets, formula feeding
- (c) **Weaning:** Food planning, formula and preparing a formula feed, importance of correct and timely weaning

Course Outcomes: After studying this course students will be able to:

- Plan diets for early childhood
- Plan diets for school going children
- Plan diets for adolescent
- Plan diets for adults

- Plan diets for pregnancy and lactation
- Plan diets for old age.

<i>Class</i>	<i>Course Type</i>	<i>Course Code</i>	<i>Course Title (Theory/Practical)</i>	<i>Marks</i>	
B.Sc. III Year	Vocational	V2-CLN- NUTT	Management of Nutrition in Life Cycle	Max: 100	Min: 35

Course objectives:

- To evaluate the food and food products and evaluate their nutritional value
- To apply nutritional concepts in diet planning
- To understand and apply the concept of RDA, BMI and balanced diet in healthmanagement

Planning of diet:

1. Dietary Modifications
2. Early Childhood
3. School going
4. Adolescent
5. Adults
6. Old age
7. Pregnant women
8. Lactating women
9. Weaning/ Supplementary food

Course Outcomes:

After studying this course students will be able to:

- Understand the relationship between food, nutrition and age group
- Understand importance of proper diet at different age groups and health condition

Format for Syllabus of Paper (Theory)

Part A Introduction

Program: Degree Course	Class: B.Sc.	Year: III	Session 2023-2024
Subject:- Clinical Nutrition and Dietetics			
1.	Course Code	V3-CLN-NUTT	
2.	Course Title	Health Care System	
3.	Course Type (Core Course Elective/Generic Elective /Vocational	Vocational Course	
4.	Prerequisite (if any)	Student who passed Diploma course (Open for all).	
5.	Course Code		
6.	Course learning outcomes (CLO)	<p>Student will understand the application of Public Health Nutrition Sciences for formulating strategies and actions for preventing and solving the serious problems. After completing this course students will be able to</p> <ol style="list-style-type: none"> 1. Gain insight into National Nutritional problems community. 2. Understand the Contribution of National Agencies working towards Nutrition improvement 3. Develop skill in planning & evaluation of public nutrition programs. 	
7.			

		<p>4. Acquaint with various approaches to public health and nutrition programs.</p> <p>5. Aware and Prevention Communicable Diseases</p>
Expected Job role career opportunities	<p>After completing this course, students will be able to-</p> <ol style="list-style-type: none"> 1. Become a Breastfeeding instructor 2. Become a nutrition educator 3. Become a Health project assistant for NGO's working in the field of health & nutrition. 4. Become a nutrition field worker/ survey for NRHM, NIN etc. 	
7.	Credit Value	Theory-2
8.	100 (30+70)	Min Passing Marks: 35

Part B Content of the Course

Unit	Topics	No. of lectures
1.	<p>Public Health and Nutrition</p> <p>I Introduction History and Development of Health and Nutritional Programs</p> <p>2 Sectors. Authorities-</p> <ul style="list-style-type: none"> • Govt (Ministries) & NGO's • Women & Child Development (WCD) • Ministry of Health • Food Corporation of India (FCI) <p>3. Scope for nutritionist & nutrition Health professionals in different sectors (Govt. & non Govt agencies)</p>	6

Unit	Topics	No. of lectures
II	<p align="center">Health Care System</p> <p>1. Determinants of Health Status.</p> <ul style="list-style-type: none"> • Indicators of Health, <p>2. Health Care of the Community</p> <ul style="list-style-type: none"> • Primary Health Care of the Community • National Health Care Delivery System. 	6
III	<p align="center">Nutritional Health Problems</p> <p>1. Major nutritional Problems-etiology, prevalence clinical manifestations, preventive and therapeutic measures for:</p> <p>1.1. Prophylaxis Program 1.2. National Tobacco Control Program 1.3.</p> <p>2. Other nutritional problems- etiology, prevalence, clinical manifestations. preventive and therapeutic measures for:</p> <p>2.1 Aflatoxicosis. 2.2 Alcoholism 2.3 Fluorosis.</p>	6
IV	<p align="center">Communicable Diseases</p> <p align="center">Introduction, causes, symptoms, preventions, & control programs.</p> <p>1.1.Tuberculosis 1.2.Malaria 1.3. Measles 1.4.Herpes 1.5.Pneumonia 1.6.COVID-19 1.7.AIDS</p>	6
V	<p align="center">Nutrition programs of India</p> <ul style="list-style-type: none"> • Promotion of Breast Feeding • Rashtriya Kishore Swasth Karyakram • Nutritional Programme Of Health Care For • Elderly 	6

	<ul style="list-style-type: none"> • Eat right India movement- 2019. • Poshan abhivan. • Antyodaya Anna Yojana • Shri Annapoorna Yojna 	
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Part C- Learning Resources

Textbooks, References Books, Other Resources

SUGGESTED READING MATERIALS

Reference Books

1. Perspectives in Nutrition: Gordon M Ward law (1999) 4th ed. WCB/Megraw Hill.
2. Michael J. Gibney, Barrie M. Margetts, John M. Kearney, Lenore Arab. Public Health Nutrition. Wiley India Pvt. Ltd.
3. Sharda Gupta, Santosh Jain Passi, Rama Seth. Ranjana Mahna & Seema Puri Kanund Elaine Nutrition and Dietetics. 2014
4. K Park, Park's Textbook of Preventive and Social Medieme (English) 23th Ednign 2015
5. Human Nutrition and Dietetics: Passmore, R and Davidson S (1986) Living Stone Publishers.
6. An epidemiological survey: Effect of predisposing factors for PCOS in Indian urban and rural population: Janani DakshinaMoorthy. Rekha S.N. <https://doi.org/10.1016/j.mefs.2017.05.007>
7. "A cross-sectional study of polycystic ovarian syndrome among adolescent and young girls in Mumbai: India Joshi Beena, Mukherjee Srabani, PatilAnushree, Purandare Ameya. Chauhan Sanjay and Vaidya Rama" doi: 10.4103/2230-8210.131162
8. स्वास्थ्य एवं रोग से पोषण प्रबन्ध : डॉ. ज्योति कुलकर्णी, शिवा प्रकाशन, इन्दौर
9. Books published by Hindi Granth Academy

2. Suggested Digital platform wave link: <https://www.physio.pedia.com/communicable diseases>

Part D

Assessment and Evaluation (Theory)

Maximum Marks: 100

Continuous Comprehensive Evaluation (CCE): 30

University Exam (UE): 70

Time: 03 00 Hours

Internal Assessment:

Class Test

Continuous Comprehensive Evaluation (CCE)

Total

30

External Assessment:

Assignment/ Presentation

University Exam

Section (A)- Very Short Question (Each)

Section (B) Short Question (Each)

Section (C) Long Question (Each)

Total : 70

Format for syllabus of paper (Practical)

Part A: Introduction			
Program: Degree Course	Class: B.Sc	Year: III	Session-2023-34
Subject: Clinical Nutrition and Dietetics			
1.	Course code		
2.	Course title		Health Care System
3.	Course Type (Core Course Elective/Generic Elective /Vocational)		Vocational
4.	Prerequisite (if any)		Open for all
Total : 70			