



Nutrition and Dietetics Module

Bachelor of Science (Honours) in Nursing Degree
Department of Nursing and Midwifery
Faculty of Allied Health Sciences
University of Sri Jayewardenepura

NUTRITION AND DIETETICS MODULE

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Module Development Committee

Dr. I.M.P.S. Ilankoon
Dr. M.K.D.L. Meegoda
Dr. S.M.K.S. Seneviratne
Mrs. T.L.C. Lasanthika
Mr. U.H.M. Nasmil

NUTRITION AND DIETETICS MODULE

Introduction

Nutrition and Dietetics deals with issues such as altered nutritional requirements associated with the disease, disease severity and malnutrition and many such issues about which students will learn in this subject. Nutrition is an integral part of the nursing care as adequate nutritional support can go a long way in improving quality of care and improving patient's outcome. The importance of nutrition in the prevention of illness and disease has been long recognized.

The subject provides with necessary knowledge, skills to assess the nutritional status of the community and providing advice to select nutritional diets for patients and families with alterations in different body systems. Practice includes invalid cookery and field visits. This course aims at re-introducing the students to the principles of basic nutrition to form the base of learning diet therapy in health and in various illnesses. It is also aimed to help them to acquire knowledge of diets in Sri Lankan setting so the optimum and realistic dietary planning can be taught to the patient.

NUTRITION AND DIETETICS MODULE

No. of credits: 02

Placement: Term 7-8 (3rd year)

Prerequisites: Biochemistry

Teaching Unit: Department of Nursing and Midwifery, Nutritionist, Dietitian

Subject	Lecture/ Tutorial	Lec. credits	Lab Hrs	Lab credits	Practice Hrs	Prac. credits	Total Hrs
Nutrition and Dietetics	30	2	-	-	-	-	30

Course objectives:

At the end of the course student is able to:

1. define nutrition and explain its reactions to health and illness.
2. identify nutritional needs of different age groups and plan diets and teach accordingly.
3. plan therapeutic diet in different settings.
4. discuss the advantages of early detection of nutritional deficiencies, prevention and
5. management.
6. develop skills to plan and prepare specific diets in health and illness

Main Content Areas

Main Content Area	Lectures/ Discussion/ Tutorial/ (Hours)
1. Introduction to nutrition and dietetics	03
2. Nutrition care process	03
3. Preservation and storage of foods	03
4. Balanced diet	03
5. Invalid cookery	03
6. Community nutrition	04
7. Introduction to clinical nutrition	06
8. Enteral and parenteral nutrition in Critical care	02
9. Nutrition education	04

1. Introduction to nutrition and dietetics

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To explain evolution of nutrition as a science To discuss the availability of food for consumption To identify common nutritional problems in Sri Lanka and the factors affecting nutritional status of people in Sri Lanka 	<ul style="list-style-type: none"> - Evolution of nutrition as a science - Overview of the availability of food for consumption <ul style="list-style-type: none"> Global food availability Achieving food security Reasons for food insecurity - Common nutritional problems in Sri Lanka - Iron deficiency anaemia, Vitamin A, Folic Acid - Factors affecting nutritional status of people in Sri Lanka 	Lecture	03	Nursing & Midwifery

2. Nutrition care process

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To describe screening and nutritional assessment (individuals, groups, communities) 	<ul style="list-style-type: none"> - Screening and nutritional assessment - Tools used for nutritional status assessment - Malnutrition Universal Assessment Tool (MUST) - Subjective Global Assessment (SGA) for hospitalized patients - Mini Nutritional Assessment – for elderly - Anthropometry (ABCD approach) - Assessment of bed ridden patients 	<ul style="list-style-type: none"> Lecture Tutorial 	<ul style="list-style-type: none"> 02 01 	<ul style="list-style-type: none"> Nursing & Midwifery Nursing & Midwifery

<ul style="list-style-type: none"> • To describe the methods of calculating the normal food requirement. • To describe the nutritional values of common foods. • To explain methods of intervention, evaluation and monitoring. 	<p>knee height and forearm length</p> <ul style="list-style-type: none"> - Methods of calculating the normal food requirement. - Nutritional values of common foods. - Food composition tables/data - Intervention, evaluation and monitoring 			
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3. Preservation and storage of foods

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> • To describe the methods of food preservation 	<ul style="list-style-type: none"> • Why food preservation? • Food storage - General guidelines for food storage • How does food preservation work? • Food preservation - Methods of food preservation techniques Traditional/Ancient Methods (Drying, Salting, smoking, immersing in bee honey, keeping under dry sand, fermentation) Modern Methods (drying or dehydration, concentration- canning, Temperature control- freezing and freeze drying, Pasteurization, Vacuum packing. 	<p>Lecture Tutorial</p>	<p>02 01</p>	<p>Nursing & Midwifery Nursing & Midwifery</p>

<ul style="list-style-type: none"> • To describe food contamination and food poisoning 	<p>Irradiation, Pascalization) Food preservatives Biopreservation Food additives</p> <ul style="list-style-type: none"> • Evaluating the health risk of food additives • Prevention of food contamination and spoilage • Causes of food spoilage • Food cross-contamination • Types of Foodborne Diseases/infections Bacterial, Viral, Parasites contamination • Factors that influence microbial growth in food • Foodborne Intoxications • Preventing food contamination and poisoning 		
<ul style="list-style-type: none"> • To describe the commercially prepared food 	<ul style="list-style-type: none"> • The concept of food safety and hygiene • The benefits of proper food safety and hygiene • Additives and Preservatives • Unhealthy Cooking Process 		
<ul style="list-style-type: none"> • To explain the precautions in selecting food and food adulteration 	<ul style="list-style-type: none"> • WHO's basic principles for food safety • The legislative control of food; Food and drug act 		

4. Balanced diet.

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> • To identify factors influencing a family for selection of food • To describe the meal planning • To explain the opportunities and responsibilities of a nurse in teaching of food and nutrition, 	<ul style="list-style-type: none"> • Factors influencing a family for selection of food. <ul style="list-style-type: none"> - Income, number, age, occupation - Cultural habits - Religious habits • Meal planning. <ul style="list-style-type: none"> Balanced diet Costing of meals Meal planning by using food composition tables Planning a meal by using the food exchange system Food based dietary Guidelines Introducing food groups • Balanced/ healthy diet for different age groups: <ul style="list-style-type: none"> adults, for infants and young children, • Recommended daily intake of nutrients • Teaching of food and nutrition, opportunities and responsibilities of a nurse • How to promote healthy diets 	Lecture Tutorial	02 01	Nursing & Midwifery Nursing & Midwifery

5. Invalid cookery

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To describe planning and preparation of different types of foods 	<ul style="list-style-type: none"> Preparation of specific food for invalids Planning and preparation of beverages, semi solids 	Lecture	02	Nursing & Midwifery
		Tutorial	01	Nursing & Midwifery

6. Community nutrition

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To identify the nutritional problems of the community 	<ul style="list-style-type: none"> Identification of Nutritional problems <ul style="list-style-type: none"> Nutritional needs for special groups (minority ethnic groups, Vegetarians, Low-income groups, refugees etc....) Short term and long term consequences of poor diets Possible nutrients needing special attention for vegetarians Substitutes for non-vegetarian foods. Implications for nutrition education 	Lecture	04	Nursing & Midwifery
<ul style="list-style-type: none"> To describe nutritional needs in each stage of life cycle 	<ul style="list-style-type: none"> Nutrition in the life cycle' <ul style="list-style-type: none"> Pregnancy & lactation Infant and child nutrition Feeding infants Complementary feeding, weaning Nutritional needs in preschool and school going children. 			

<ul style="list-style-type: none"> • To discuss the activities of the community dietitian in community settings and programs 	<ul style="list-style-type: none"> - Feeding the elderly • Nutritional requirements and Deficiencies • New technologies in managing nutritional deficits (Food fortification, Probiotics, Prebiotics, Food supplements) • Public Health Nutrition and Community Nutrition Practice. • Relate how public health programs promote the prevention of disease. 		
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7. Introduction to clinical nutrition

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> • To describe nutritional care for hospitalized patients 	<p>Broad Content Areas</p> <ul style="list-style-type: none"> • Nutritional care for hospitalized patients - Diet in diseases/Dietetics - Cardiovascular diseases - Gastro intestinal diseases (upper & lower GI) - Renal disorders - Metabolic disorders. - Diet in Diabetes mellitus - Nutritional care in allergies and fevers. - Diet in Pre and post-operative conditions. - Diet in Cancer and HIV/AIDS - Nutritional care in burn 	Lecture	06	Nutritionist

8. Enteral and parenteral nutrition in critical care

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To describe assessment of nutrition in patients having ICU and Critical care 	<ul style="list-style-type: none"> Nutritional assessment of ICU patients Nutrition in critical care 	Lecture	02	Nursing & Midwifery

9. Nutrition education

Intermediate Objectives	Broad Content Areas	Activity	Duration (Hours)	Department
<ul style="list-style-type: none"> To describe the goal and purposes of nutrition education 	<p>Components of nutritional educational programs</p> <ul style="list-style-type: none"> Increasing the nutrition knowledge and awareness of the public and of policy-makers. Promoting desirable food behavior and nutritional practices. Increasing the diversity and quantity of family food supplies. Community Nutrition Education 	Student's presentation	04	Nursing & Midwifery

Teaching / Learning Activities:

Lectures, Tutorials, Assignments

Student Presentations, student seminars

Study Visits: Hospital kitchen, Nutritionist's office

Teaching Media: Multimedia, Videotape, Handouts

Assessment:

Continuous assessment – Assignment I and II : 20%

Final Examination: Theory - (04 SEQ) : 80%

Assessment:

Practical Assignments:

Practicum 1

- (a) Plan and prepare balance diet.
- (b) Plan and prepare meals for various age groups.
- (c) Calculation of nutritional requirements for a given patient
- (d) Prepare and deliver a nutrition education for a group of patients.
- (e) Field Visits (Kitchen, Fair, Canteen)

Practicum 2 (group)

1. Meal planning for various illnesses.
2. Dietary case study of patients on special diet and presentation.
3. Prepare low-cost dietary instruction for home adaptation.
4. Preparation of supplementary feeds for infants

Recommended books:

- Mitchel, H.S et al, Nutrition in Health and Diseases, J. B. Lippincott Co, Philadelphia (Latest edition)
- Andersen L & Browe J. H, Nutrition & Family Health Services, W.B. Saunders Co, Philadelphia (Latest Edition).
- Proudfit F.T, & Robinson, C.H Normal & Therapeutic Nutrition, Macmillan & Co, New York (Latest Edition).
- Gopalan, C. et al, Nutritive Value of Indian Food, National institute of Nutrition, Hyderabad (Latest Edition).
- Helen Barker, Nutrition and Dietetics for Health Care, 10th edition