



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
Accredited by NAAC with "A" Grade)

Madagadipet, Puducherry - 605 107



SCHOOL OF ARTS AND SCIENCE

Department of Food Science

B.Sc. Nutrition and Dietetics

Minutes of Third Meeting of Board of Studies

Venue

FOOD SCIENCE LAB
School of Arts and Science Block,
Sri Manakula Vinayagar Engineering College
(Autonomous), Puducherry.

Date : 16.09.2022 & Time : 2.00-4.00pm



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Madagadipet, Puducherry - 605 107



SCHOOL OF ARTS AND SCIENCE

DEPARTMENT OF FOOD SCIENCE

B.Sc.Nutrition and Dietetics

BOARD OF STUDIES III- MEETING

S.No	Name of the Member with Designation and official address	Members as per UGC norms
1	Dr. T.Kavitha Assistant Professor and Head Department of Food Science School of Arts and Science Sri Manakula Vinayagar Engineering College Puducherry	Chairman
2	Dr. P. Nazni Professor and Head Department of Nutrition and Dietetics Periyar University, Salem	Subject Expert (University Nominee)
3	Dr.S. Umamageshwari Professor and Head Department of Food Service Management and Dietetics Avinashilingam University, Coimbatore.	Subject Expert (Academic Council Nominee)
4	Dr. L. Jayaprada Associate Professor and Head Department of Nutrition and Dietetics Seethalakshmi Ramaswami College (Autonomous), Thiruchirapalli.	Subject Expert (Academic Council Nominee)
5	Mr. P. ARAVIND DL CAKERS Pondicherry.	Representative from Industry

2.E-12.4

6	Dr.P. Vandarkuzhali Associate Professor Department of Homescience Avvaiyar Government College for Women (Autonomous), Karaikal.	Co-opt Member
7	Mrs. K.Malarvizhi, Assistant Professor Department of Food Science School of Arts and Science Sri Manakula Vinayagar Engineering College Madagadipet, Pondicherry	Internal Member


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Propts



AGENDA OF THE MEETING

Item No.: BoS/2022/SAS/UG/ND/ 3.1

Welcome address, Introduction about the Institution, Department, and BOS Members.

Item No.: BoS/2022/SAS/UG/ND/ 3.2

Confirmation of minutes of the second meeting of the Board of Studies.

Item No.: BoS/2022/SAS/UG/ND/ 3.3

To discuss and approve the curriculum structure of B.Sc. Nutrition and Dietetics Programme for the Academic Year 2022-23

Item No.: BoS/2022/SAS/UG/ND/ 3.4

To discuss and approve the newly framed syllabus for V and VI semester under Autonomous Regulations 2020 for B.Sc.Nutrition and Dietetics. Academic Year 2022-23

Item No.: BoS/2022/SAS/UG/ND/ 3.5

To consider any other item with the approval of the chair.

2.E.12.8

Minutes of Meeting

The meeting deliberated on the agenda items that have been approved by the Chairman.

Item No. 3.1	Welcome address, Introduction about the Institution and the Department. <ul style="list-style-type: none">• Chairman of BoS gave the welcome address and introduction about the Institution and the Department.• Chairman of BoS introduced the BoS members.
Item No. 3.2	Confirmation of minutes of the First meeting of the Board of Studies. <ul style="list-style-type: none">• The Head of the Department appraised the Board regarding the Minutes of the second Meeting of BoS
Item No. 3.3	To discuss and approve the curriculum structure of B.Sc. Nutrition and Dietetics Programme for the Academic Year 2022-23 <ul style="list-style-type: none">• The panel appreciated the Curriculum and found that to be highly appropriate. (Annexure - I)

The Curriculum was discussed and recommended to Academic Council with the following improvisations:

Sl.No.	Regulation	Semester	Course Title with Course Code	Unit No.	Particulars
1	R 2020	V	Dietetics I A20NDT515	The Complete Course	<ul style="list-style-type: none"> The course title was changed from Nutritional Therapy in Specific Disease to Dietetics I in order to make the course title direct and relevant to the specialization of B.Sc Nutrition and Dietetics.
3	R 2020	V	Public Health and Community Nutrition - A20NDT516	The Complete Course	<ul style="list-style-type: none"> The course title was changed from Community Nutrition to Public Health and Community Nutrition in order to make the course title direct and relevant to the specialization of B.Sc Nutrition and Dietetics.
4	R 2020	V	Resource Management - A20NDE505	The complete course	The DSE course title was changed from Food packaging and Marketing to Resource Management.
5	R 2020	VI	Dietetics II A20NDT619	The Complete Course	<ul style="list-style-type: none"> The course title was changed from Nutritional Therapy in Life style disorders to Dietetics II in order to make the course title direct and relevant to the specialization of B.Sc Nutrition and Dietetics.
6	R 2020	VI	Nutrition in Critical Care - A20NDT621	The Complete Course	<ul style="list-style-type: none"> The course title Preventive Nutrition was changed into Nutrition in Critical Care. We have added some content regarding the specialization of B.Sc. (ND)
7	R 2020	VI	Basics in Research Methodology - A20NDE608	The Complete Course	<ul style="list-style-type: none"> The DSE course title was changed from Food Analysis to Basics in Research Methodology.

Item No. 3.4	<p>To discuss and approve the newly framed Syllabi for V and VI semester under Autonomous Regulations 2020 for the B.Sc. Nutrition and Dietetics Programme.</p> <p>The Board discussed and recommended suggestions in this regard. The Syllabus meets the requirements of understanding the concept of Nutrition and Food Science.</p> <ul style="list-style-type: none"> The panel appreciated the syllabi for V & VI Semester and found that to be highly Appropriate.(Annexure – II) Changes has been discussed in some units and it was listed below.
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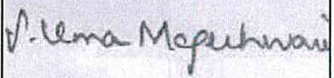



Sl.No.	Regulation	Semester	Course Title with Course Code	Unit No.	Particulars
1	R 2020	VI	Sports Nutrition - A20NDT620	The Complete Course	<ul style="list-style-type: none"> The Board members have suggested to change the content in Unit III and IV and it was modified.
2	R 2020	VI	Nutrition in Critical Care - A20NDT621	The Complete Course	<ul style="list-style-type: none"> The Board members have suggested to modify and include relevant topics in all the units.


Item No. 3.5	<p>To consider any other item with the approval of the chair.</p> <p>Regarding Internship the training period is 30 days and the same was approved by BOS Members and report have to be submit at the end of the training period.</p> <p>The BOS members suggested to frame the contents in all the units based upon the question paper setting and the same was prepared accordingly.</p>
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The meeting was concluded at 4.00 pm with vote of thanks by Dr. T. Kavitha.

2.E.12.14

The Minutes of the Board of Studies First Meeting held on 16.09.2022 is signed by the members who attended the meeting :

S.No	Name of the Member with Designation and official Address	Members as per UGC norms	Signature
1	Dr. T.KAVITHA Assistant Professor and Head Department of Food Sciences School of Arts and Science SMVEC	Chairman	
2	Dr. P. NAZNI Professor and Head Department of Nutrition and Dietetics Periyar University, Salem	Subject Expert (University Nominee)	
3	Dr.S. UMA MAGESHWARI Professor and Head Department of Food Service Management and Dietetics Avinashilingam University, Coimbatore.	Subject Expert (Academic Council Nominee)	
4	Dr. L.JAYAPRADA Associate Professor and Head Department of Nutrition and Dietetics Seethalakshmi Ramaswami College (Autonomous), Thiruchirapalli.	Subject Expert (Academic Council Nominee)	
5	Mr. P. ARAVIND DL CAKERS Pondicherry.	Representative from Industry	
6	Mrs. K.Malarvizhi, Assistant Professor Department of Food Science School of Arts and Science Sri Manakula Vinayagar Engineering College Madagadipet, Pondicherry	Internal Member	


Chairman-BOS (B.Sc.Nutrition and Dietetics)
Dr. T. Kavitha
Assistant Professor and Head


Dean SAS
(Dr.S. Muthulakshmi)

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SCHOOL OF ARTS AND SCIENCE

Department of Food Science

B.Sc. Nutrition and Dietetics

ANNEXURE –I (Curriculum)

Minutes of the third Meeting of BoS (B.Sc. Nutrition and Dietetics)

2. E. 12.17

2.E.12.18

SEMESTER – I										
Sl. No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20TAT101/ A20FRT101	Tamil – I / French - I	MIL	3	0	0	3	25	75	100
2	A20GET101	General English – I	ENG	3	0	0	3	25	75	100
3	A20NDT101	Nutrition Science - I	DSC	4	0	0	4	25	75	100
4	A20NDT102	Food Science – I	DSC	4	0	0	4	25	75	100
5	A20NDD101	Basic Chemistry for Food Science	IDC	3	1	0	4	25	75	100
Ability Enhancement Compulsory Course										
6	A20AET101	Environmental Studies	AECC	2	0	0	2	100	0	100
Practical										
7	A20NDL103	Nutrition Science - I and Food Science – I Practicals	DSC	0	0	4	2	50	50	100
8	A20NDD102	Basic Chemistry for Food Science Practical	IDC	0	0	4	2	50	50	100
Skill Enhancement Course										
9	A20NDS101	Communication Skills Lab	SEC	0	0	4	2	100	0	100
Employment Enhancement Course										
10	A20NDC101	Certification Course I – MS Office	EEC	2	0	2	0	100	0	100
							26	525	475	1000

SEMESTER– II										
Sl No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20TAT202/ A20FRT202	Tamil – II / French -II	MIL	3	0	0	3	25	75	100
2	A20GET202	General English-II	ENG	3	0	0	3	25	75	100
3	A20NDT204	Nutrition Science – II	DSC	4	0	0	4	25	75	100
4	A20NDT205	Food Science – II	DSC	4	0	0	4	25	75	100
5	A20NDD203	Human Physiology	IDC	3	1	0	4	25	75	100
Ability Enhancement Compulsory Course										
6	A20AET202	Public Administration	AECC	2	0	0	2	100	0	100
Practical										
7	A20NDL206	Nutrition Science – II and Food Science - II Practicals	DSC	0	0	4	2	50	50	100
8	A20NDD204	Human Physiology Practical	IDC	0	0	4	2	50	50	100
Skill Enhancement Course										
9	A20NDS202	Food Preservation	SEC	0	0	4	2	100	0	100
Extension Activities										
10	A20EAL201	National Service Scheme	EA	0	0	2	1	100	0	100
Employment Enhancement Course										
11	A20NDC202	Certification Course II – Android using Medical App	EEC	2	0	2	0	100	0	100
							27	625	475	1100

Minutes of the third Meeting of BoS (B.Sc. Nutrition and Dietetics)

2. E. 12. 2011

SEMESTER – III										
S. No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20NDT307	Nutrition Through Life Cycle	DSC	4	0	0	4	25	75	100
2	A20NDT308	Food Microbiology	DSC	4	0	0	4	25	75	100
3	A20NDE301	Food Safety and Sanitation	DSE	3	0	0	3	25	75	100
4	A20CPD303	Computer Basics	IDC	3	1	0	4	25	75	100
5	A20MAO317	Open Elective-I – Quantitative Aptitude - I	OE	2	0	0	2	25	75	100
Practical										
6	A20NDL309	Nutrition Through Life Cycle Practical - I	DSC	0	0	4	2	50	50	100
7	A20NDL310	Food Microbiology Practical	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
8	A20NDS303	Functional Foods	SEC	0	0	4	2	100	0	100
Employment Enhancement Course										
9	A20NDC303	Certification Course III	EEC	2	0	2	0	100	0	100
							23	425	475	900

SEMESTER- IV										
S. No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20NDT411	Nutritional Biochemistry	DSC	4	0	0	4	25	75	100
2	A20NDT412	Bakery and Confectionery	DSC	4	0	0	4	25	75	100
3	A20NDE402	Nutritional Assessment and Surveillance	DSE	3	0	0	3	25	75	100
4	A20NDD406	Food Standards and Quality Control	IDC	3	1	0	4	25	75	100
5	A20XXO4XX	Open Elective	OE	2	0	0	2	25	75	100
Practical										
6	A20NDL413	Nutritional Biochemistry Practical	DSC	0	0	4	2	50	50	100
7	A20NDL414	Bakery and Confectionery Practical	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
8	A20NDS404	Interior Decoration in Food Service Units	SEC	0	0	4	2	100	0	100
Employment Enhancement Course										
9	A20NDC404	Certification Course IV	EEC	2	0	2	0	100	0	100
							23	425	475	900

Minutes of the third Meeting of BoS (B.Sc. Nutrition and Dietetics)

2. E. 12. 21

2.E.12.22

SEMESTER –V

S. No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20NDT515	Dietetics I	DSC	4	0	0	4	25	75	100
2	A20NDT516	Public Health and Community Nutrition	DSC	4	0	0	4	25	75	100
3	A20NDT517	Food Service Management	DSC	4	0	0	4	25	75	100
4	A20NDE505	Resource Management	DSE	3	0	0	3	25	75	100
Practical										
5	A20NDL518	Dietetics I Practical	DSC	0	0	4	2	50	50	100
6	A20NDP501	In-Plant training/Internship.	DSC	0	0	4	2	50	50	100
Skill Enhancement Course										
7	A20NDS505	Community Nutrition - Field Work	SEC	0	0	4	2	100	0	100
Employment Enhancement Course										
9	A20NDC505	Certification Course III	EEC	2	0	2	0	100	0	100
							21	400	400	800

SEMESTER –VI

S. No	Course Code	Course Title	Category	Periods			Credits	Max.Marks		
				L	T	P		CAM	ESM	Total
Theory										
1	A20NDT619	Dietetics II	DSC	4	0	0	4	25	75	100
2	A20NDT620	Sports Nutrition	DSC	4	0	0	4	25	75	100
3	A20NDT621	Nutrition in Critical Care	DSC	3	1	0	4	25	75	100
4	A20NDE608	Basics in Research Methodology	DSE	3	0	0	3	25	75	100
Practical										
5	A20NDL622	Dietetics II Practical	DSC	0	0	4	2	50	50	100
6	A20NDP602	Project	DSC	0	0	10	5	40	60	100
Skill Enhancement Course										
7	A20NDS606	Dietetic Techniques and Patient Counselling	SEC	0	0	4	2	100	0	100
Employment Enhancement Course										
9	A20NDC404	Certification Course IV	EEC	2	0	2	0	100	0	100
							24	390	410	800

Minutes of the third Meeting of BoS (B.Sc. Nutrition and Dietetics)

2. E. 12. 23

2. E. 12. 24

DISCIPLINE SPECIFIC ELECTIVES										
Sl.No	Course Code	CourseTitle	Category	Periods			Cred its	Max.Marks		
				L	T	P		CAM	ESM	Total
Discipline Specific Electives (DSE - I) - offered in Third Semester										
1	A20NDE301	Food Safety and Sanitation	DSE	3	0	0	3	25	75	100
Discipline Specific Electives (DSE - II) - offered in Fourth Semester										
1	A20NDE402	Nutritional Assessment & Surveillance	DSE	3	0	0	3	25	75	100
2	A20NDE403	Food Service & Layout	DSE	3	0	0	3	25	75	100
3	A20NDE404	Nutrition for Women								
Discipline Specific Electives (DSE - III) - offered in Fifth Semester										
1	A20NDE505	Resource Management	DSE	3	0	0	3	25	75	100
2	A20NDE506	Food Analysis	DSE	3	0	0	3	25	75	100
3	A20NDE507	Special Care Nutrition	DSE	3	0	0	3	25	75	100
Discipline Specific Electives (DSE - IV) - offered in Sixth Semester										
1	A20NDE608	Basics in Research Methodology	DSE	3	0	0	3	25	75	100
2	A20NDE609	Health Psychology	DSE	3	0	0	3	25	75	100
3	A20NDE610	Human Development	DSE	3	0	0	3	25	75	100

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T. Anand



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SCHOOL OF ARTS AND SCIENCE

Department of Food Science

B.Sc. Nutrition and Dietetics

ANNEXURE –II

(V & VI Semester Syllabus)

Department of Food Science(B. Sc.Nutrition and Dietetics)

41

T. J. J.

2.E.12.27

2.E.12.28

SEMESTER V

A20NDT515

DIETETICS – I

L T P C Hrs
4 0 0 4 60

Objectives:

To enable the students to

1. Provide comprehensive knowledge on principles and planning of therapeutic diets.
2. Acquire knowledge on nutritional needs of febrile conditions.
3. Acquire knowledge on nutritional needs of Gastro intestinal diseases.
4. Determine the nutritional support for Liver disorders.
5. Acquire the knowledge on dietary management for special cases.

Course Outcomes

After the completion of the course, the students will be able to

- CO1 - Get an idea about the concept of therapeutic diet .
CO2 - Identified the dietary management for febrile patients.
CO3 - Understand the dietary management for gastro intestinal diseases.
CO4 - Understand the role played by dietary measures to recover liver disorders.
CO5 - Get acquainted with nutritional support for allergic patients.

UNIT I - Diet Therapy

(15 hrs)

Dietetics - Definition, History of Dietetics, Diet as a Therapeutic agent - Objectives of Diet Therapy - Modifications of normal diet - Quantitative and Qualitative, Principles and Classification of Therapeutic Diets - Routine Hospital Diet – Clear liquid diet, Full fluid diet/liquid diet, Semi-solid diet, Soft diet, Bland diet, High & Low-calorie diet, High & Low protein diet, High & Low fiber diet, Low cholesterol diet.

UNIT II - Diet in Febrile condition

(10 hrs)

Febrile Condition – Overview Diagnosis, Causes, Symptoms, Dietary Management of Febrile conditions: Acute & Chronic (Typhoid, influenza, malaria, tuberculosis).

UNIT III - Diet in Gastro Intestinal Disease

(15 hrs)

Gastrointestinal Diseases – Definition, Types, Etiology, Symptoms, Dietary management for:
a) Upper Gastro Disease – Gastro Esophageal Reflex Disease (GERD), Indigestion, Peptic Ulcer, Gastric Surgery.
b) Intestinal Diseases – Constipation, Diarrhoea, Dumping Syndrome, and Diverticular Disease.

c) Inflammatory Bowel Diseases - Ulcerative Colitis - Crohn's Disease, Irritable Bowel Syndrome, Intestinal gas and flatulence.

UNIT IV - Diet in Liver and Gall Bladder Diseases (10 hrs)

Liver and Gall Bladder Diseases - Definition, Types, Etiology, Symptoms, Dietary management for: Infective hepatitis, Cirrhosis of liver, Hepatic Encyclopathy, Cholecystitis, Cholelithiasis and Pancreatitis.

UNIT V - Diet in Addictive patients (10 hrs)

Introduction, Definition, Types, Symptoms, Causes, Risk factor, Dietary management for

a) Addictive Behavior - Anorexia nervosa & Bulimia nervosa

b) Alcoholism

c) Nutrient and drug interaction - classification of nutrient drug, effect of drug on nutritional status, stages of drug absorption, nutrient drug interaction list, Common Nutrient Deficiencies in Recovering Addicts, nutritional planning for pre and post rehabilitation.

TEXT BOOKS

1. Gopalan.C. Ramasastry, B.V and Balasubramaniam, S.C., Nutritive value of Indian foods, National Institute, Hyderabad, 1994
2. Sue Rod Williams, Nutrition and Diet Therapy, Times Mirror Mosby College Publishing, St.Louis Toronto, Baosin, 1989.
3. Garrow James, Human Nutrition and Dietetics, Churchill Livingstone, Edinburgh London Madrid Melbourne, New York and Tokyo, 1993.

REFERENCES

- 1 Corne H. Robinson Marilyn R. Lawler, Normal and Therapeutic Nutrition, Mac Millan Publishing Company, New York, 1986.
2. F.P. Antia, Clinical Dietetics and Nutrition, Oxford University press, 1989.
3. Srilakshmi.B, Dietetics, New Age international(p) ltd., Seventh edition 2014.

WEBSITES:

<https://bowenstaff.bowen.edu.ng/lectureslides/1611582925.pdf>

<https://naturallyyours.in/blogs/blog/nutritional-management-in-fever>

<https://medlineplus.gov/ency/article/002441.htm>

<https://liverfoundation.org/health-and-wellness/healthy-lifestyle/liver-disease-diets/>

PUBLIC HEALTH AND COMMUNITY NUTRITION

A20NDT516

L T P C Hrs

4 0 0 4 60

Objectives:

To enable the students to

1. Identify the concepts and scope of Public health and community nutrition
2. Determine the nutritional problems
3. Determine the nutritional status of the community
4. Identify the hazards in community health.
5. Identify the preventive measures.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Get an idea about the concept scope of Public health and community nutrition

CO2 - Identified the nutritional problems in India.

CO3 - Understand the nutritional status of the community.

CO4 - Determined the hazards in community health.

CO5 - Get acquainted with the preventive measures taken by the Government.

UNIT I - Concepts and scope of Public health and community nutrition (10 hrs)

Nutrition and Health in National Development- Role of Nutritionist in improving community
- Ecology of health - Ecology of malnutrition

UNIT II - Nutritional Problems and Implications for Public Health (15 hrs)

Common Nutritional Problems in India - Causes - Nutritional and non-nutritional - Incidence of nutritional problems - Signs and Symptoms, Treatment - PEM, Micro nutrient deficiencies.

UNIT III - Determination of consumption and nutritional status of the community

(10 hrs)

Nutrition and Behavior - factors affecting food habits and food behavior

Improvement of nutrition in community - fortification, conservation and education

Weaning foods-planning, formulating and preparing importance of correct and timely weaning – Review.

UNIT IV - Hazards in Community Health and Nutritional Status (10 hrs)

Adulteration in Food - Water Pollution - Industrial effluent Sewage - Pesticides residues in food.

UNIT V - Programmes in Community Health and Nutrition (15 hrs)

Programme planning - diagnosis of problem setting objectives, programme implementation and administration.

Availability and distribution of health care and delivery services in India - Overview

Nutrition and infection-relationship, immunization and its importance.

Recent advances in community nutrition research-Fortification & enrichment of foods.

TEXT BOOKS

1. McLaren.D.S., ED-1983. Nutrition in the Community. John Weley and sons.
2. Jelliffe. D.B.-1996. The Assessment of Nutritional status on the community-WHO Monograph series No. 53-geneva.
3. Reh, Emma-1976. Manual on Household Food consumption surveys, FAO. Nutritional studies No.18 Rome

REFERENCES

- 1 Shukla, P.K.- 1982. Nutritional problem of India-prentice Hall of India Pvt. Ltd., New Delhi.
- 2 Shanti ghosh-1977. The feeding and care of infants and young children, voluntary Health Association of India-New Delhi.
- 3 Ibrahim. G.J-1983. Nutrition in mother and children Health. London, Macmillan. 7.
- Ritchey, S.J. and J. Taper-1983. Maternal and child Nutrition. Harper and Row publishers, New Delhi.

WEBSITES:

<https://www.godigit.com/health-insurance/nutrition/nutritional-problems-in-india>

https://www.mdsuajmer.ac.in/econtents/846_nutritional%20problems%20in%20India.pptx

https://www.researchgate.net/publication/317305228_NUTRITIONAL_PROBLEMS_in_India_world_ways_to_combat

FOOD SERVICE MANAGEMENT

A20NDT517

L T P C Hrs

4 0 0 4 60

Objectives:

To enable the students to

1. Gain knowledge about various types of food services.
2. Determine the food production and service
3. Identify the purchase and storage methods
4. Understand the classification and procedures for using kitchen equipments.
5. Gain knowledge about the Principles and functions of Management.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Understand the types of food services

CO2 - Acquired knowledge about the food production.

CO3 - Understand the procedures followed in purchasing and storage of goods.

CO4 - Understand the procedures for selection and use of equipments.

CO5 - Get acquainted with the Principles and functions of Management.

Unit I - Food Service

(10 hrs)

Review of different types of institutional food service in operation- Commercial and Non-commercial - classification based on functional – profit oriented, service oriented and public health facility oriented food Service Institutions.

Unit II - Food Production and Service

(15 hrs)

Principles of Menu Planning in Food Service Institutions, Type of Menu, Techniques of Menu Writing, Standardization of Recipe, Portion Control, Food Service - Formal and Informal types, Styles of Food Services □ Centralized and Decentralized System of Service.

Unit III- Food Purchase and Storage

(10 hrs)

Methods of Food Purchase, Selection of Foods, Receiving - Delivery methods and procedures

Storage - Methods of Storage -Maintenance of Storage Records

Unit IV - Equipment

(10 hrs)

Classification -Weight or size, usage and mode of operation

Selection and Design - Factors influencing selection of various equipments - Use and Care of Cooking and Service.

Unit V - Organization and Management

(15 hrs)

Management –Principles, Functions and Tools of

Management Personnel Management - Recruitment,

Selection, Induction, Employee facilities and benefits

Training, Motivation and Leadership .

TEXT BOOKS

1. West, B. B. and Wood, L. (1979). Food Service in Institutions. John Wiley, New York.

2. Sethi, M; Malhan, S. (1997). Catering Management; An integrated approach, New Age International

3. Kinton, R; Ceserani, V. (1992). The Theory of Catering, ELBS Publishers.

REFERENCES:

1. Kotschevar, L. H. and Terrel, M. E. (1997). Food Service Planning: Layout and Equipment. John Wiley.

2. Minor, L. J., Cichy, R. F. (1984). Food Service Systems Management, Connecticut AVI Publ 6.

3. Kazarian, E. A. (1989). Food service facilities planning 3rd ed. New York. Van Nostrand and Reinhold.

WEBSITES:

<https://www.ecpi.edu/blog/what-is-food-service-management-and-why-do-i-need-a-degree-for-it>

<https://www.scitechnol.com/scholarly/food-service-management-journals-articles-ppts-list.php>

<https://ziphaccp.com/en/food-service/food-service-management.html>

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T. Ford

RESOURCE MANAGEMENT

A20NDE505

L T P C Hrs

3 0 0 3 45

Objectives:

To enable the students to

1. Create awareness about the management in the family and other areas.
2. Determine the characteristics of the family influence the management.
3. Identify the factors which motivate the management.
4. Understand the resources of the family
5. Gain knowledge about the management of specific resources.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Understand the clear concept of family management

CO2 - Acquired knowledge about the factors influence the management.

CO3 - Understand the factors which motivates management

CO4 - Acquired the knowledge of the resources.

CO5 - Get acquainted with the management of specific resources.

Unit I - Introduction to Resource Management (9 hrs)

Basics concept - Similarities and Differences in business farm and Family Resource Management - Purpose of Management - Management and change, achievement of goals.

Unit II- Family Characteristics influencing Management (9 hrs)

Life Style - Type of Family - Family size - Stages of family cycle

Unit III- Factors Motivating Management (9 hrs)

Goals - Definition, Types and Utility - Values - Importance, Sources, Classification ,Characteristics and changing values - Standards - Definition Classification - Resources -Role of Decision making and Resource availability.

Unit IV - Resources in the family (9 hrs)

Types of Resources - Factors affecting the use of resources - classification of the familybased on resources.

Unit V - Management of Specific Resources (9 hrs)

Space - Equipment - Energy - Community Resources.

TEXT BOOKS:

1. Tami.J. Moore and Sylvia. M. Asay, Third Edition (2017), Family Resource management, SAGE publications.
2. Seetharaman (2019), An Introduction to Family Resource Management, CBS Publishers.
3. Sushma Gupta, Neeru Garg and Anita Agarwal (2018), Text book of Family Resource Management Hygiene and Physiology, Kalyani Publishers.

REFERENCES

1. Ruth E, Deacon, Francille M. Firebaugh (1975): Family Resource Management – Principles and Application, Roy Houghton Mifflin Company
2. Irma, H. Gross, Elizabeth Grandall, Marjoris M. Knoll (1973): Management for Modern families, Prentice Hall, Inc, Englewood, Cliffs, New Jersey
3. Varghese. M.A, (2006), Home Management, New Age International

WEBSITES

https://www.brainkart.com/article/Definition-and-Concept-of-Family-Resource-Management_33507/

<https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-10.pdf>

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T. Anil

A20NDL518

DIETETICS – I PRACTICAL

L	T	P	C	Hrs
0	0	4	2	30

Objectives:

To enable the students to

- 1 Provide comprehensive knowledge on principles and planning of therapeutic diets.
- 2.Acquire knowledge on nutritional needs of various diseased conditions.

PLANNING AND PREPARATION OF DIETS FOR

1. Routine Hospital Diets
2. Febril conditions
3. Gastrointestinal Disease
4. Liver and Gall bladder disease
5. Addictive patient.

TEXT BOOKS

- 1 Gopalan.C. Ramasastry, B.V and Balasubramaniam, S.C., Nutritive value of Indian foods,National Institute, Hyderabad, 1994
- 2 Sue Rod Williams, Nutrition and Diet Therapy, Times Mirror Mosby College Publishing, St.Louis Toronto, Baosin, 1989.
- 3 Garrow James, Human Nutrition and Dietetics, Churchill Livingstone, Edinburgh London Madrid Melbourne, New York and Tokyo, 1993.

REFERENCES

- 1 Corne H. Robinson Marilyn R. Lawler, Normal and Therapeutic Nutrition, Mac MillanPublishing Company, New York, 1986.
2. F.P. Antia, Clinical Dietetics and Nutrition, Oxford University press, 1989.
3. Srilakshmi.B, Dietetics, New Age international(p) ltd., Seventh edition 2014.

A20NDP501

IN PLANT TRAINING / INTERNSHIP

L T P C Hrs

0 0 4 2 30

Objectives:

- Acquire knowledge about the preparation of diet chart, routine hospital diet.
- Understand the supportive services available in hospital.

TRAINING:

1. Will be organized in the month of May/June.
2. Students are expected to undergo the stipulated period of training at Government/Private Institutions and submit a report.

INTERNSHIP:

Dietary Department: Students are expected to complete 30 days of training at the dietary department including ward visits for case study

Support Services: Students are expected to complete 5 days of observational visits at Laboratory & Blood Bank

SUBMISSION OF CASE REPORT:

It includes (should be submitted to the respective institution)

- Brief description of the Hospital & dietary department (10 pages)
- Short report on the training undergone in Laboratory & Blood Bank(5 pages)
- Case study - **ONE** Patient (10 pages)
- Cover to cover – 25 pages
- Inclusive of graph, diagrams, pictures etc
- Times New Roman – font 1.1/2 spacing, 12 – font size
- Soft binding, certified by HOD.

Certified by respective staff members and HOD.

Department of Food Science(B.Sc.Nutrition and Dietetics)

COMMUNITY NUTRITION – FIELD WORK

A20NDS505

L	T	P	C	Hrs
0	0	4	2	30

Objectives:

- To enable the students to learn and prepare different types of visual aid for the community
- To gain practical experience in giving demonstration and conducting survey and other methods of assessments.

Unit I

Diet and Nutrition surveys

a) Identifying vulnerable and at risk groups. b) Diet survey and breast feeding and weaning practices of specific groups. c) Use of anthropometric measurements in children.

Unit II

Methods of Extension used in community

a) Preparation of visual aids-charts, posters models, etc. for exhibition. b) Lecture and Method Demonstrations to target groups.

Unit III

Field visits to – a) Observe the working of nutrition programmes. b) Hospitals to observe nutritional deficiencies.

Unit IV

Conducting Nutritional Awareness Programmet in rural or urban community focusing on women and children

Unit V

Demonstration and Submission of Report

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TEXT BOOKS

- 1 McLaren.D.S., ED-1983. Nutrition in the Community. John Weley and sons.
- 2 Jelliffe. D.B.-1996. The Assessment of Nutritional status on the community-WHO Monograph series No. 53-geneva.
- 3 Reh, Emma-1976. Manual on Household Food consumption surveys, FAO. Nutritional studies No.18 Rome

REFERENCES

- 1 Shukla, P.K.- 1982. Nutritional problem of India-prentice Hall of India Pvt. Ltd., New Delhi.
- 2 Shanti ghosh-1977. The feeding and care of infants and young children, voluntary Health Association of India-New Delhi.
- 3 Ibrahim. G.J-1983. Nutrition in mother and children Health. London, Macmillan. 7.
- Ritchey, S.J. and J. Taper-1983. Maternal and child Nutrition. Harper and Row publishers, New Delhi.

SEMESTER VI

A20NDT619

DIETETICS - II

L	T	P	C	Hrs
4	0	0	4	60

Objectives:

To enable the students to

1. Provide comprehensive knowledge on role and need of dietician.
2. Assess formulate & prepare diet for specific conditions of life style disorder
3. Acquire knowledge on nutritional needs of Diabetes Mellitus.
4. Determine the nutritional support for Cardiac disorders.
5. Acquire the knowledge on dietary management for renal and special cases.

Course Outcomes

After the completion of the course, the students will be able to

- CO1 - Get an idea about the role of dietician.
- CO2 - Identified the dietary management for obesity and underweight.
- CO3 - Understand the dietary management for diabetes mellitus.
- CO4 - Understand the role played by dietary measures to recover cardiac disorders.
- CO5 - Get acquainted with nutritional support for renal special case patients.

Unit I - The Dietician (10 hrs)

Dietician: Definition; Educational Qualification of Dietician, Types and Role of dietician, Difference between registered dietician & Nutritionist, tools used by dietician. Indian Dietetic Association, Requirements for Registered Dietitian.

Unit II - Diet in Obesity and Underweight (10 hrs)

Aetiology, Role of Hormones, Assessment and Grades, Types, Treatment , Complicationsand Guidelines.

Unit III - Diet in Diabetes Mellitus (15 hrs)

Diabetes Mellitus - Aetiology, Types, Clinical Symptoms, Complications and treatment of Diabetes Mellitus Complications – Cataract and Retinopathy, Neuropathy, Nephropathy, Diabetic Coma, Hypoglycemia and Ketoacidosis.

Unit IV - Diet in Cardiovascular disease (10 hrs)

Cardiovascular Diseases - Aetiology, Clinical Symptoms, Diagnosis and Treatment of Hypertension, Hyperlipidemia, Atherosclerosis, Ischemic Heart Disease.

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T. Anil

Unit V - Diet in Renal and Specific disease

(15 hrs)

Kidney Diseases - Aetiology, Clinical Symptoms, Diagnosis and Treatment of Glomerulonephritis, Nephrosis, Acute Renal Failure, Chronic Renal Failure, Specific Disease - Cancer, AIDS, Burns

TEXT BOOKS

1. Raheena Begum. M., A Text book of Foods, Nutrition and Dietetics, Sterling Publishers Pvt., Ltd 1991
2. Srilakshmi. B, Dietetics, New age international (Pvt Ltd.,) 2000
3. Subhangini. A. Joshi, Textbook of Nutrition and Dietetics, Tata Mc Graw hill publishing limited, 1992

REFERENCES

- 1 Antia F.P. Clinical Dietetics and Nutrition 3rd Oxford University press New Delhi/Bombay, 1989.
2. Robinson C.H and Wiley E.S. Basic Nutrition and Diet Therapy, 6th edition McMillan Publications, New York, 1989.
3. Srilakshmi.B, Dietetics, New Age international (p) ltd., Seventh edition 2014

JOURNALS

1. Journals of American Dietetic Association
2. Indian Journal of Medical Research
3. Indian Journal of Nutrition and Dietetics
4. American Journal of Clinical Nutrition

WEBSITES:

<https://health.clevelandclinic.org/metabolic-syndrome-diet/>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1783583/>
<https://www.sanitarium.com.au/health-nutrition/nutrition/foods-that-fight-lifestyle-diseases>
<https://www.un.org/en/chronicle/article/lifestyle-diseases-economic-burden-health-services>

A20NDT620

SPORTS NUTRITION

L T P C Hrs

4 0 0 4 60

Objectives:

To enable the students to

1. Develop an understanding the concept of Sports Nutrition
2. Obtain an insight about the physiology of exercise.
3. Understand the role played by the macro nutrients
4. Understand the importance of water and electrolytes.
5. Know the nutritional support for sports person.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Get an idea about the concept of Sports Nutrition.

CO2 - Acquaint the knowledge of exercise physiology.

CO3 - Understand the role of macro nutrients.

CO4 - Understand the importance of water and electrolytes.

CO5 - Get acquainted with nutritional support for sports person.

UNIT I

(10 hrs)

Introduction to Sports Nutrition- Definition - Scope - Importance of Sports Nutrition

Physical Fitness - Types of Fitness - Components of Physical Fitness – Methods and Benefits , Exercise - Types and Factors affecting - Exercises to strengthen different parts of the body

UNIT II

(15 hrs)

Physiology of Exercise - Fuels for Exercise - Carbohydrates -Fats - Proteins - High-Energy Phosphates, Bioenergetics - Anaerobic ATP Production - Aerobic ATP Production -Aerobic ATP Tally, Energy Requirements at Rest - Rest-to-Exercise Transitions - Recovery from Exercise: Metabolic Responses - Metabolic Responses to Exercise: Biomechanics - Muscular Adaptations to Exercise– Endurance and Resistance Training - Cardio-Pulmonary adaptationsto Exercise - Effects of Training on Cardio-Pulmonary System.

UNIT III

(10 hrs)

Carbohydrates, Proteins and Fats in sports: - during training, during different phases of Preparation, General preparatory phase, Specific preparatory phase, Competition phase, Transition phase, Injury and rehabilitation phase - Pre competition nutrition - Post competition nutrition

UNIT IV

(10 hrs)

Hydration - Pre competition Hydration, The Week before, the day before, on the day.
Electrolytes - Role of electrolytes in Muscular contraction- Electrolyte loss & exercise -
Maintaining / Restoring electrolyte Balance - Sports & Energy drinks - Osmolality &
osmolarity - Hypotonic, Isotonic, Hypertonic - Acclimatization - Non Alcoholic Beverages –
Alcohol

UNIT V

(15hrs)

Ergogenic Aids and Supplements - Sports Foods - Cereal Bar, Sports Drinks, Carbohydrate
Gels, Liquid Meal Replacements ,Use of Performance Enhancing Substances among
Athletes
- Anabolic Steroids, Types of Protein Supplements - Creatinine, Beta- Alanine, Glutamine,
Branched Chain Amino Acids, Beta Hydroxyl Beta Methyl Butyrate(HMB), Whey Proteins,
Caffeine, Glycerol, Bicarbonate, Citrate, World Anti- doping Agency (WADA) - Anti Doping
Rules and Regulations.

REFERENCES:

1. Melvin H.Williams, Nutrition for Health, Fitness and Sports, 7th edition, McGraw Hill International Edition, 2005
2. Micheal J.Gibney, Ian A Macdonald and Helen M.Roche, Nutrition and Metabolism, Blackwell Publishing Company, Bangalore, Reprint 2004.
3. Mc Ardle Katch & Katch, Nutrition, Health & Fitness, Williams & Wilkins, A.Waverly Company
4. Srilakshmi. B, Suganthi. V, Ashok, K.C, Exercise Physiology, Fitness and Sports Nutrition, New Age International, New Delhi, 2017.

WEBSITES:

https://www.physio-pedia.com/Sports_Nutrition

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805623/>

<https://www.nutrition.gov/topics/basic-nutrition/eating-exercise-and-sports>

A20NDT621

NUTRITION IN CRITICAL CARE

L T P C Hrs

3 1 0 4 60

Objectives:

To enable the students to

1. Develop an understanding the concept of nutritional care.
2. Obtain an insight into the Enteral Nutrition and feeding procedures.
3. Obtain an insight into the Parenteral Nutrition
4. Understand the importance of Pharmaconutrition
5. Know the nutritional support for critical ill patients.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Get an idea about the concept of nutritional care.

CO2 - Acquaint the knowledge of enteral nutrition.

CO3 - Understand the infusion techniques of parenteral nutrition

CO4 - Understand the importance of Pharmaconutrition

CO5 - Get acquainted with nutritional support for ICU patients.

UNIT I Concept of Nutrition Care

(10 hrs)

Introduction to nutrition care process - Definition, Steps in nutrition care process, Nutrition Assessment - Nutritional Intervention – Definition, Objectives.

Nutritional Monitoring and Evaluation – Definition, Components, Objectives, and Evaluation of nutrition care.

UNIT II Enteral Nutrition

(10 hrs)

Enteral Nutrition – Indications, Monitoring - Administration and Methods – Nasogastric, Gastrostomy, Jejunostomy -, Types of food - Infusion Techniques - Complications.

UNIT III Parenteral Nutrition

(10 hrs))

Parenteral Nutrition – Indications, Monitoring - Administration – Types of Infusion, TPN formula - Complications

UNIT IV Pharmaconutrition

(15 hrs)

Pharmaconutrition – an evaluation of the specific issues surrounding - selection and supplementation of Macro nutrients and Micro nutrients such as fish oil, glutamine and antioxidants

UNIT V Nutrition support for Critical ill patients

(15 hrs)

Introduction, Definition - Critically ill patient, Nutritional Changes during critical illness - Acute Phase Response, Hormonal Response, Catabolism and Urea Nitrogen - Nutrition support - Energy requirements, Protein requirements, Commencement of Enteral and Parenteral Nutrition - .for ICU patients (brief explanation).

Text Books

1. Rajkumar .R & Vinood . B Patel, Diet and Nutrition in Ctirical Care. Living Reference Work (2020).
2. Cynober . L & Moore . F.A., Nutrition in Critical Care. Nestle Nutrition Institute Workshop: Vol 8 (2013).
3. Subhal . D, Principles in Critical Care Nutrition. Jaypee Brothers Medical Publications (2019).

Websites :

1. <http://www.criticalcarenutrition.com>
2. [Nutrition therapy in critical illness: a review of the literature for clinicians | Critical Care | Full Text \(biomedcentral.com\)](#)
3. <https://www.sciencedirect.com/science/article/abs/pii/S0261561415001>

BASICS IN RESEARCH METHODOLOGY

A20NDE608

L T P C Hrs

3 0 0 3 45

Objectives:

To enable the students to

1. Basic knowledge on the role and importance of research in science.
2. Critically analyse research methodologies identified in existing literature.
3. Understanding the complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project.
4. Develop a research proposal or industry project plan.
5. Search for, select and critically analyze research articles and paper.

Course Outcomes

After the completion of the course, the students will be able to

CO1 - Get an idea about the meaning of research.

CO2 - Acquaint the knowledge of review of literature.

CO3 - Understand the types of sample design and data collection

CO4 - Understand the importance of processing the data

CO5 - Get acquainted knowledge about the layout of the research report.

Unit I

(9hrs)

Research- Meaning, Definition, Characteristics, Objectives, Motivation Importance and types, Significance, Research and Scientific Method, Criteria of a good research.

Unit II

(9hrs)

Literature review - Definition, Purpose and Importance.

Research Design - Definition, Concept- Variables and Attributes, Types - Exploratory, Diagnostic, Descriptive.

Unit III

(9hrs)

Sample Design- Definition and Types - Systematic, Stratified, Cluster and Multistage.

Data Collection - Definition and Types - Observation and Interview - Collection of data through questionnaire and schedule.

Unit IV

(9hrs)

Processing of Data - Editing, Coding, Classification and Tabulation. Analysis of Data (Theory) - Measures of central tendency-Mode, Median and Mean. Measures of dispersion-Range, Mean Deviation and Standard Deviation.

Unit V

(9 hrs)

Layout of the Research Report - Preliminary Page, Main Text and End Matter - Sample Research Proposal in Science- Introduction, Problem Statement, Objectives, Preliminary Literature Review, Methodology and Reference. Hands on training on SPSS, Field report presentations.

TEXT BOOKS

1. Kothari, C.R., (2004), Research Methodology, Methods and Techniques, Second Revised Edition, New Age International Publishers, New Delhi.
2. Ranjit Kumar, (2011), Research Methodology: a step-by-step Guide for Beginners, Third Edition, SAGE Publications, New Delhi.
3. Beverley Moriarty, (2018), Research Skills for Teachers – From Research Question to Research Design, Allen & Unwin Publishers, Australia.

REFERENCES

1. Rajendra Kumar, C. (2008), Research Methodology, APH Publishing Corporation, New Delhi.
2. Pagadala Suganda Devi (2017), Research Methodology: A Handbook for Beginners, Notion Press, Chennai.
3. Vijayalakshmi Ponnuraj and Sivaprakasam, C. (2008), Research Methods: Tips and Techniques, MJP Publishers.

WEBSITES:

<https://www.indeed.com/career-advice/career-development/research-methodology><https://www.educba.com/types-of-research-methodology/>
<https://ccsuniversity.ac.in/bridge-library/pdf/MPhil%20Stats%20Research%20Methodology-Part1.pdf>

A20NDL622

DIETETICS – II PRACTICAL

L T P C Hrs

0 0 4 2 30

Objectives:

To enable the students to

- 1 Provide comprehensive knowledge on principles and planning of therapeutic diets.
2. Acquire knowledge on dietary management for metabolic disorders.

PLANNING AND PREPARATION OF DIETS FOR

1. Obesity and Underweight
2. Diabetes Mellitus
3. Cardiovascular Disease - Hypertension, CHD
4. Renal Disorders - Glomerulonephritis, Nephrotic Syndrome and Chronic Renal Failure
5. Specific Cases - Cancer, AIDS and Burns

TEXT BOOKS

- 1 Gopalan.C. Ramasastri, B.V and Balasubramaniam, S.C., Nutritive value of Indian foods, National Institute, Hyderabad, 1994
- 2 Sue Rod Williams, Nutrition and Diet Therapy, Times Mirror Mosby College Publishing, St.Louis Toronto, Baosin, 1989.
- 3 Garrow James, Human Nutrition and Dietetics, Churchill Livingstone, Edinburgh London Madrid Melbourne, New York and Tokyo, 1993.

REFERENCES

- 1 Cornne H. Robinson Marilyn R. Lawler, Normal and Therapeutic Nutrition, Mac Millan Publishing Company, New York, 1986.
2. F.P. Antia, Clinical Dietetics and Nutrition, Oxford University press, 1989.
3. Srilakshmi.B, Dietetics, New Age international (p) ltd., Seventh edition 2014.

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DIETETIC TECHNIQUES AND PATIENT COUNSELLING

A20NDS606

L T P C Hrs

0 0 4 2 30

Objectives:

This course will enable the students to:

1. Critically appraise, plan and organize / supervise preparation and service of different kinds of therapeutic diets in hospital dietary service
2. Develop skills for patient counseling
3. Interact effectively with patients and their families and to give dietary advice in the content of the patient's socio – cultural and economic milieu.

Unit I

Dietician as part of the medical team and outreach services

Unit II

Medical history assessment – techniques of obtaining relevant information for patient profiles

Unit III

Dietary diagnosis and tests for nutritional status. Correlating clinical and dietary information

Unit IV

Patient education and counseling – assessment of patient needs, establishing rapport, counseling relationship, resources and aids to counseling.

Unit V

Aesthetic attributes of diets. Follow up visits and patients education.

Textbooks:

1. ARA Health care Nutrition Services Nutrition Counsellor : Strategies for results controlling the pace of counseling (1968), Philadelphia ARA services.
2. Raab, C and Tilotson, J. (eds) (1983), Heart to heart – A manual on Nutrition counseling for the reduction of cardiovascular disease risk factors, US.Govt Printing Office – Washington DC

References:

1. Dave, Indu (1984): The basic essentials of counseling, Sterling Publisher Pvt. Ltd, NewDelhi
2. Barki, B.C. Mukhopadhyaa, B. (1989): Guidance and counseling, A manual sterling Publishers, New Delhi.

Websites:

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6780101/>
2. <https://aicnu.org/wp-content/uploads/2015/01/Diet-Counselling.pdf>
3. <https://www.alphacarewellnesscenter.com/2021/04/16/a-step-by-step-guide-to-nutrition-counseling/>

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