

E.M.G. YADAVA WOMEN'S COLLEGE, MADURAI – 625 014.

(An Autonomous Institution – Affiliated to Madurai Kamaraj University)

Re-accredited (**3rd Cycle**) with Grade **A+ & CGPA 3.51** by NAAC

DEPARTMENT OF NUTRITION & DIETETICS



CBCS SYLLABUS

BACHELOR OF SCIENCE

PROGRAMME CODE - N

COURSE STRUCTURE

(w.e.f. 2021 – 2022 Batch onwards)



E.M.G. YADAVA WOMEN'S COLLEGE, MADURAI – 625 014.

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CRITERION - I

1.1.3 Details of courses offered by the institution that focus on employability / entrepreneurship / skill development during the year.

Syllabus copies with highlights of contents focusing on
Employability / Entrepreneurship / Skill Development



To be Noted:

| HIGHLIGHTED COLORS | COURSES |
|---|-------------------------|
|  | Employability |
|  | Skill Development |
|  | Entrepreneurship |
|  | Skilled & Employability |

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(w.e.f. 2021 – 2022 batch onwards)

COURSE STRUCTURE – SEMESTER WISE

| Sem | Part | Sub Code | Title of the Paper | Teaching hrs (per week) | Exam Duration | Marks Allotted | | | Credits |
|-----|------|----------|--|-------------------------|---------------|----------------|----|-------|---------|
| | | | | | | CIA | SE | Total | |
| V | III | 21N51 | Core : Nutrition Through Life Cycle | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | | Core : Lab – in - Nutrition Through Life Cycle | 3 | - | - | - | - | - |
| | III | 21N52 | Core : Dietetics - I | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | | Core : Lab – in -Dietetics – I & II | 3 | - | - | - | - | - |
| | III | | Elective - I | 4 | 3 | 25 | 75 | 100 | 5 |
| | III | | Dietetic Internship Project | 2 | - | - | - | - | - |
| | III | 21AKN5 | Allied II : General Chemistry- III | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | | Allied II : Practical - II Volumetric Analysis | 2 | - | - | - | - | - |
| | IV | 214EV5 | Environmental Studies | 2 | 3 | 25 | 75 | 100 | 2 |
| | IV | 21SEN51 | SBE : Hotel House Keeping | 2 | 3 | 25 | 75 | 100 | 2 |

| | | | | | | | | | |
|----|-----|-------------------|--|---|---|----|----|-----|---|
| VI | III | 21N61 | Core : Food Processing | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | 21N62 | Core : Dietetics - II | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | | Elective II | 4 | 3 | 25 | 75 | 100 | 5 |
| | III | 21N61P | Core : Lab – in -Nutrition Through Life Cycle | 3 | 3 | 40 | 60 | 100 | 4 |
| | III | 21N62P | Core : Lab – in -Dietetics –I &II | 3 | 3 | 40 | 60 | 100 | 4 |
| | III | | Elective III | 2 | 3 | 20 | 80 | 100 | 5 |
| | III | 21AKN6 | Allied II : General Chemistry- IV | 4 | 3 | 25 | 75 | 100 | 4 |
| | III | 21AKN6P | Allied II : Practical - II Volumetric Analysis | 2 | 3 | 40 | 60 | 100 | 1 |
| | IV | 21SEN61 | SBE : Front Office Management | 2 | 3 | 25 | 75 | 100 | 2 |
| | IV | 214VE6 | Value Education | 2 | 3 | 25 | 75 | 100 | 2 |
| | V | 215NS4/ 215PE4 | Extension Activities - NSS/Physical Education | - | 3 | 25 | 75 | 100 | 1 |

Electives :**Semester – V****Elective – I (Choose any one)**

1. Catering Management – 21NE5A
2. Functional Foods and Nutraceuticals – 21NE5B

Semester – VI**Elective – II (Choose any one)**

1. Food Safety and Quality control – 21NE6A
2. Post Harvest Technology – 21NE6B

Semester – VI**Elective – III**

- Dietetic Internship Project – 21NEPR6

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To enable students to

1. understand the vital link between nutrition and health
2. know the factors affecting the nutrient needs during the life cycle and the RDA for different age groups.

Unit – I Nutrition during adulthood

Health, nutritional status, food pyramid, principles of menu planning, balance diet, low cost balanced diet, RDA.

Unit – II Nutrition during pregnancy

Physiological stages of pregnancy-stages of gestation, weight gain during pregnancy, nutritional needs during pregnancy, complication of pregnancy and their dietary implications, RDA.

Nutrition during lactation

Physiological adjustments during lactation, process of stimulation of milk production, factors influencing the volume and composition of breast milk, Nutritional requirements during lactation, RDA.

Unit – III Nutrition during infancy Growth and development, nutritional allowances for infants, breast feeding VS formula feeding, introduction of weaning foods and supplementary foods, nutrition related problems and feeding pattern.

Nutrition during preschool period Growth and development, need and health care, food habits and nutrient intake, RDA.

Unit – IV Nutrition during school going period

Physical development, nutritional status, school lunch programme, food habits,

nutritional requirements, importance of snacks, food choices, factors influencing eating habits.

Nutrition during adolescence

Change of growth, physical, physiological changes ,eating behavior, nutritional needs and nutritional problems , RDA.

Nutrition for sport person – pre game , during game and post game.

Unit – V Nutrition during old age

Physical changes, food intake, choice of foods, nutrient needs, factors affecting nutrient requirements, nutrition related problems ,immunity and old age .

Text Books :

- 1.SriLakshmi, B. *Dietetics*, New Age International (p) Ltd, seventh edition Chennai, 2014.
- 2.Swaminathan, M *Essential of food and Nutrition*, Vols.I&II: Ganesh & CO., Madras, 1985.

Reference Books :

- 1.Antia F.E *Clinical Dietetics and Nutrition* Oxford university press, New Delhi, 1996.
- 2.Davidson Passmore P. and Break J.P., *Human Nutrition and Dietetics*. The English Language Book Society, Livingston, 1996.
- 3.Gopalan,C., Ramasastri, B.V and BalaSubramaniam, S.C. *Nutritive value of Indian Foods*, National Institute of Nutrition,Hyderabad,1996.
- 4.Judith,E. Brown *Nutrition Through the Life Cycle*, Wadsworth Publishing ,2016.
- 5.Krause M.V., Horch M.A *Food, Nutrition and Diet Therapy* (10th edn), W.B. Saunders company, Philadelphia, 2000.

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To enable students to

1. develop attitude towards the profession as dietitian.
2. understand the recent trends in diet therapy and planning and preparation of therapeutic diets.

Unit – I

Dietitian – classification, responsibilities, code of ethics, assessment of diet planning, diet counseling and nutrition education. use of computers in diet planning and counseling.

Unit – II

Concept of diet therapy- purpose and principles of therapeutic diets, modification of normal diets, classification of therapeutic diets. Basic concepts of oral feeding, tube feeding, parenteral nutrition and feeding problems.

Unit - III

Peptic ulcer - causes, symptoms and dietary management.

Liver diseases jaundice, hepatitis, cirrhosis- causes, symptoms and dietary management.

Unit – IV

Obesity and Underweight - causes, symptoms and dietary management.

PCOD-causes and dietary management.

Hypertension and Atherosclerosis - causes, symptoms and dietary management.

Diabetes mellitus- causes, symptoms, types of diabetes, complication of diabetes, glycemic index and dietary management.

Kidney diseases -nephritis , nephrosis , renal calculi –calcium oxalate ,renal failure- causes, symptoms and dietary management, dialysis.

Cancer– types , risk factors, symptoms, role of antioxidants in prevention of cancer and dietary management.

Text Books :

- 1.AvantinaSharma*Principles of Therapeutic Nutrition andDietetics*(1stedn.), CBS Publishers &Pvt.Ltd,New Delhi, 2017.
- 2.Srilakshmi. B, *Dietetics* (7thedn.), New 4Age International Publications, New Delhi, 2014.

Reference Books :

- 1.PoojaVerma, *Foods,Nutrition&Dietetics* (1stedn), CBS Publishers &Pvt.Ltd, New Delhi ,2015.
- 2.RaneenaBegum, M,*Foods,Nutrition&Dietetics*(3rdedn),Sterling Publishing Pvt Limited,New Delhi ,2013.
- 3.ShrinandanBansal, *Food and Nutrition* (3rdedn), AITBS Publisher,India,2012.
- 4.Srilakshmi.B, *Human Nutriton(For B.Sc Nursing Student)*(2ndedn.), New Age International Publications, New Delhi, 2011.
- 5.Swaminathan, M. *Advanced Text Book on Food and Nutrition*, Vol. I & Vol. II (22ndedn.),Published by The Bangalore Printing and Publishing Co.Ltd, 2010.

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ELECTIVE I –(OPTIONAL)**Title of the Paper :Catering Management****Semester :V****Contact Hours: 4****Sub Code :21NE5A****Credits: 5****Objectives:**

To enable students to

- 1.understand the different types of food service and styles.
- 2.gain knowledge about the functioning of food service institutions.
- 3.develop skills in setting up food service units.

Unit I

Food Service-Types -Commercial and Non commercial, objectives, Styles of service-waiter service, buffet, English and French service ,menu planning, types of menu.

Unit II

Equipments in food service-Classification of equipment, factors for selection of equipments, electrical and non-electrical equipments for food storage, preparation and food serving. Care and maintenance of equipment.

Unit III

Management tools-Organization chart,job description,job specification,job analysis,time &work schedule, production and service ,budget, leadership style and training, decision making and communication.

Unit IV

Personnel Management-Recruitment-sources , procedure and policy, selection and training, labour laws.

Unit V

Cost Accounting-Cost concepts-types, fixed cost, semi fixed cost, variable cost, food cost control, records to be maintained, book keeping, book of accounts-cash book, purchase book, sales book , purchase return book, sales return book and journal.

Text Books:

- 1.MohiniSethi, *SurjeetMalhan,Catering Management (Revised 2nd Edn)*,New Age International pvt .Ltd publishers,2007.
- 2.George B and Chatterjee S, *Food and Beverage service*, Jaico Publishing company, Mumbai,2009.

Reference Books:

- 1.Kotas R and Davis B, *Food cost control*, Macmillan,Publication,1973.
- 2.Longree.K,*Food Service Sanitation*,John Wiley and Sons 1973
- 3.MohiniSethi,SurjeetMalhan,*Catering Management (2nd Edn)*,New Age International pvt.Ltd publishers,2006.
- 4.Roday.s,*Food Hygiene and Sanitation*,TataMc Graw Hill Publishing Company Ltd,2006.
- 5.WestB.B,Wood.L,Hoglet .F and Shukart. G.*Food Service in Institutions*, John Wiley and Sons 1977.

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ELECTIVE I –(OPTIONAL)**Title of the Paper :Functional Foods and Nutraceuticals****Semester :V****Contact Hours:4****Sub Code :21NE5B****Credits:5****Objectives :**

To enable students to

1.understand the meaning and function of functional foods and nutraceuticals properties.

2.gain knowledge on the scientific basis of foods and nutrient supplements.

Unit - I**Functional Foods** – Introduction, definition , classification, role of functional foods in disease prevention ,advantages and disadvantages.**Unit - II****Nutraceuticals**-from plant, animals, microbes, classification as per sources of chemical nature and function, role of nutraceuticals in prevention of disease.**Unit - III****Perspective for food Applications** –Sources, bioavailability and potential application for health of polyphenols, flavonoids, catechins , isoflavones,tannins ,phytoesterogens, phytosterols, glucosinolates& protease.**Unit – IV****Health Functionality of Food Components**-Definition, sources and health benefits of probiotics& prebiotics ,synbiotic and microbiota dietary fibre, oligosaccharides, amino acids, peptides and protein, fatty acids.**Unit - V****Consumer marketing**- factors for marketing functional foods and nutraceuticals, role of functional foods in food industries. Diet supplements.

Text Books :

| |
|-------------|
| Annexure-11 |
|-------------|

- 1.Mary et.al., *Essentials of functional foods*, Culinary and hospitality industry publications services, 2005.
- 2.Robert et. al., *Nutraceuticals and Functional foods*, Culinary and hospitality Industry publications services, 2005.

Reference Books :

- 1.David et.al., *Performance functional foods*, culinary and hospitality industry publications services, 2005.
- 2.Israel Goldberg, *functional food, designer, pharma foods ,nutraceutical*, Culinary and hospitality industry publications services, 2006.
- 3.Srilakshm. B, *Nutriton Science* (5thedn.), New Age International Publications, New Delhi, 2017.
- 4.SunetraRoday, *Food Science & Nutrition*, (2ndedn.), Macmillan publishing co., New Delhi, 2012.
- 5.Robert E.C Wildman, *Hand book of Nutraceuticals and Functional foods*, Culinary and hospitality Industry publications services, 2005.

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To enable students to

- 1.understand of the different areas and functions of housekeeping department.
- 2.acquire knowledge regarding maintenance of rooms.

Unit-I

House keeping department - Introduction, layout of housekeeping department, organization, job description, training, recruitment and selection, qualities of housekeeping staff.

Unit-II

Practices and procedures – briefing and scheduling of staff, rules on guest floor, knowledge of rooms, maids cart, cleaning a room, room report. Control desk – role of the control desk, types of registers and files maintained.

Unit-III

Linen and uniform room – storage conditions, equipment and accessories, types of uniforms and linen, records maintained in linen room, stock taking, par stocks, inventory control, exchange of linen and uniforms, housekeeping supply room.

Unit-IV

Laundry Services - Organization of laundry department in a hotel, different types of laundry and cleaning agents , cleaning equipments. Public area – cleaning, care and storage of out of service, furniture.

Unit-V

Current trends in Housekeeping practices – Ecotel Practices in house keeping department budgeting, lost and found procedure, cleaning methods and standards, pest control, control of odours. fire prevention .

Text Books:

- 1.Raghubalan G and Smritee Raghubalan, *Hotel Housekeeping*, Oxford University Press, New Delhi, 2007.
- 2.Sudhir Andrews, *Hotel House Keeping*, (2nd edn)Tata McGraw Hill Publishing Co. Ltd. 2010.

Reference Books

- 1.Dr. B.K. Chakravati, “ *A Technical guide to Hotel operation*” , Metropolitan, New Delhi India.
2. JoanC Boason , Lennox M, *Hotel, hostel & hospital housekeeping*, 5th edition Bookower publishers, New York. 2004.
3. Longree. K., *Food Service Sanitation*, John wiley and Sons 1973.
- 4 .Sudhir Andrews, *Hotel House Keeping*, Tata McGraw Hill Publishing Co. Ltd. 2010.
5. West B.B., Wood .L, Hoglet F, and Shukart. G, *Food Service in institutions* John Wiley and Sons 1977.

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DEPARTMENT OF NUTRITION AND DIETETICS

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Title of the Paper : Food processing

Semester : VI

Sub Code :21N61

Contact Hours: 4

Credits: 4

Objectives:

To enable students to

1. understand the physical and chemical principles of food processing.

2. gain knowledge on recent trends in food processing.

Unit - I

Food processing

Introduction, types, scope, aims and principles of food processing.

Cereal processing

Milling – traditional and modern milling , by products of milling of wheat ,storage of processed cereal grains, extruded processing – production of pasta, noodles.

Unit - II

Pulse & Legumes Processing

Processing methods, quick cooking legumes, instant legume powders.

Nuts and oil seeds

Oilseed pressing, solvent extraction, purification, processing of oil.

Unit - III

Vegetable & fruit processing

Pre-processing considerations in different vegetables & Fruits ,

Processing – blanching, canning, pickling process, chutneys, puree , tutti fruity, Fruit concentrates and vegetable paste.

Carrot, tomato and beetroot juice processing

Unit - IV

Milk processing- operations, types & manufacture of milk and milk products,

Unit - V

Fleshy foods- fish & meat –processing –smoking, dehydration, canning, preservation using class I &II preservatives , FSSAI –permissible limits.

Text Books:

- 1.Avantina Sharma, *Textbook of Food Science and Technology*, International Book Distributing Company, Lucknow, 2006.
- 2.Subbulakshmi G and Udipi S A, *Food Processing and Preservation*, New Age International Publishing, New Delhi, 2007.

Reference Books:

- 1.Norman N. Potter, Joseph H. Hotchkiss *Food Science* 5th Edition, CBS Publishers and Distributors, 1997.
- 2.Radhakrishna G and Balakrishna, AV, *Indian Food Processing Industry*, The ICFAI university Press, 2007.
- 3.SathyaprakashSinha, *Principles of food processing*, Adhyayan Publishers and Distributors, New Delhi, 2009.
- 4.ShakuntalaManay and Shadaksharaswamy, *Food facts and principles* (3 Edn.), New Age International Publication, New Delhi, 2008.
- 5.Sivasankar B, *Food processing and preservation*, Prentice Hall India Private Limited, New Delhi, 2008.

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1. know about the principles of medical nutrition therapy.
2. develop the skills & principle in modification of the normal & therapeutic diet to suit the different disease condition .

Unit – I**Deficiency disorders - PEM , Vitamin – A , Iron, Iodine-causes, symptoms and dietary management.****Lung diseases COPD - causes, symptoms and dietary management.****Unit - II****Febrile diseases – causes, symptoms and dietary management-Acute diseases-typhoid , influenza and malaria ,Chronic disease- tuberculosis.****Gastro intestinal disorders- causes, symptoms and dietary management -diarrhoea, dysentery constipation and GERD .****Unit – III****Genetic disorders –phenyl ketonuria, galactosemia , fructosuria- definition, diagnosis, symptoms and dietary treatment.****Unit - IV****Diet in allergy – definition, classification, food allergens, symptoms, test for allergy, dietary management.**

Unit -V**Burns-** types , dietary management.**AIDS** -causes, symptoms and dietary management.**Text Books :**

- 1.AvantinaSharma*Principles of Therapeutic Nutrition and Dietetics*(1stedn.), CBS Publishers & Pvt. Ltd, New Delhi, 2017.
- 2.Srilakshmi. B, *Dietetics* (7thedn.), New 4Age International Publications, New Delhi, 2014.

Reference Books :

- 1.PoojaVerma*Foods,Nutrition&Dietetics* (1stedn), CBS Publishers & Pvt. Ltd, New Delhi ,2015.
- 2.Raneena Begum.M,*Foods,Nutrition&Dietetics*(3rdedn),SterlingPublishing Pvt Limited, New Delhi ,2013.
- 3.Shrinandan Bansal , *Food and Nutrition* (3rdedn), AITBS Publisher, India,2012.
- 4.Srilakshmi.B, *Human Nutrition (For B.Sc Nursing Student)*(2ndedn.), New Age International Publications, New Delhi, 2011.
- 5.Swaminathan, M. *Advanced Text Book on Food and Nutrition*, Vol. I & Vol. II (2ndedn.),Published by The Bangalore Printing and Publishing Co. Ltd, 2010.

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ELECTIVE II – (OPTIONAL)**Title of the Paper : Food Safety and Quality control****Semester : VI****Contact Hours: 4****Sub Code : 21NE6A****Credits: 5****Objectives:**

To help the students to

- 1.study about quality control and food safety.
- 2.gain knowledge on food laws.
- 3.acquire knowledge on food adulteration and common food standards.

Unit I

Food safety – definition, food safety quality factors ,food related hazards- physical, chemical, and biological hazards,microbiological considerations in food safety.

Unit II

Quality control – meaning ,principles of quality control in food, raw material control, process control ,inspection of finished product, sensory evaluation, packaging, labelling and storage, Total quality management.

Unit III

Sensory Assessment – Sensory assessment on food quality- appearance, color, flavour, texture and taste, reasons for testing food quality and trained panel members, different method of sensory analysis –difference test –paired comparison, duo-trio, triangle, rating tests-ranking, hedonic rating, numerical scoring, sensitivity tests – sensitivity threshold - dilution and descriptive test.

Unit IV

Food Additives – definition , functions, food colours –types –natural & chemical advantage and disadvantages. food adulteration-definition – intentional and incidental adulteration.

Unit V

Food laws and regulations –standard of weight and measures act, mark of BIS, AGMARK, PFA, FPO, JECFA, Food Safety and Standards Act, GMP, GHP, Codex Alimentarius, HACCP- principles and application of HACCP.

Text Books:

- 1.ShakunthlaManay .N. Shadaksharaswamy. M.(2005).*Food Facts and Principles*, New Age International Publishers.
- 2.Srilakshmi. B *Food Science*(6th edn.), New Age International Pub., New Delhi, 2015.

Reference Books:

1. Potter N. and Joseph H, *Food Science* (5th ed.), CBS Publishers & Distributors Pvt, Ltd, New Delhi, 1996
- 2.Raheena Begum, *Food Nutrition and Dietetics* (3rd ed.), Sterling Publishers Private limited New Delhi, 2013
- 3.Srilakshmi. B, *Food Science* (6th ed.), New Age International Pub., New Delhi, 2015.
- 4.Srivastava .R.P. and Sanjeev Kumar , *Fruits and Vegetables Preservation principles and practices.*,(3rd ed)CBS Publishers & Distributors Pvt, Ltd, New Delhi, 1994
- 5.Sunetra Roday, *Food Hygiene and Sanitation with case studies.*,(2nd ed) Published by Tata Mc Graw Hill Education Pvt, Ltd, New Delhi 2011.

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ELECTIVE II –(OPTIONAL)

Title of the Paper :Post Harvest Technology

Semester :VI

Contact Hours: 4

Sub Code :21NE6B

Credits: 5

Objectives:

To enable students to

- 1.understand the knowledge of storages of grains
- 2.gain knowledge about food spoilage and its prevention.
- 3.know about various agencies in controlling food losses.

Unit I

Introduction to post harvest technology - Definition, importance , role, principles, methods involved in post harvest technology , advantages and disadvantages.

Unit II

Agents causing food losses- Physical agents, (moisture, temperature), Chemical losses, biological losses, insects attacking food grains , detection of insect infestation.

Unit III

Control of spoilage agents - Importance and method of sanitary handling, physical, chemical, biological and control of pests, rats , rodents and birds. Insect& pest control methods- Physical and chemical methods.

Unit IV

Storage of grains - Importance , requirements of storage , methods of storage units-

traditional -warehouse , underground & above ground storage modern storage-cold storage unit, types of storage losses- qualitative and quantitative.

Unit V

Agencies governing Food Losses - Role of SGC, FCI, CWC, SWC, IGSI.

Text Books:

1. Pingale, *Handling and storage of food grains*- ICAR, New Delhi, 2000.
2. Potter, *Food Science*, - The A VI Publishing Co., The Westport, 2000.

Reference Books:

1. Avantina Sharma, *Textbook of Food Science and Technology*, International Book Distributing Company, Lucknow, 2006.
2. Gajalakshmi R *Nutrition science* CBS Publishers & Distributors Pvt Ltd New Delhi, 2010.
3. Potter, *Food Science*, - The A VI Publishing Co., The Westport, 1973.
4. Shakuntala many et.al *Food facts and principles*(3rd Edn), new age international publishing, New Delhi ,2009.
5. Subbulakshmi et.al *Food processing and preservation*, new age international publishing, New Delhi ,2009.

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Title of the Paper :Core – Nutrition through Life Cycle Practicals

Semester :VI

Contact Hours: 3

Sub Code :21N61P

Credits: 4

1. Planning and preparation of balanced diets for men & women

a. Low, middle and high income groups.

b. Sedentary, moderate and heavy activities.

2. Planning and preparation of balanced diets for special Physiological conditions.

a. Pregnancy-Trimester periods.

b. Lactation –First & Second six month.

3. Planning and preparation of balanced diets for different age groups.

a. Infancy.

b. Pre-School.

c. School going.

d. Adolescence.

e. Adult

f. Old age

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- a. Soft diet
- b. Fluid diet-Clear & full fluid diet
- c. Bland diet
- d. High protein diet
- e. High fibre diet
- f. Low fibre diet
- g. Calorie restricted diet
- h. Low sodium diet

2. Planning and preparation of therapeutic and modified diets.

- a. Deficiency disorders – PEM, vitamin – A deficiency, iron deficiency.
- b. Febrile diseases – typhoid, Tuberculosis.
- c. Obesity and leanness.
- d. Diabetes mellitus.
- e. Peptic ulcer.
- f. Cardiac diseases- hypertension, atherosclerosis.
- g. Liver disorders – cirrhosis, jaundice.
- h. Renal disorders – nephritis, nephrosis, renal calculi.(calcium –oxalate) dialysis.

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To enable the students to gain practical experience in the management of a dietary department and patient counseling for a period of 15 days.

Content

1. Observation and study of organization and management of the dietary department.

2. Understanding the medical history of the patients, study of case sheet and diagnostic tests used.

3. Planning therapeutic diets and computation of nutritive value.

4. Observation and study of

a. Purchase ,storage and issue.

b. Production.

c. Service.

5.Participation in diet counselling units, experience in imparting diet counseling and understanding the records maintained in diet counseling units.

6.Submission of case study project report at the end of the internship training.

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To enable students to

1. understand the organizational procedures of the front office.

2. know the departments associated with front office.

Unit - I**Introduction to front office** – organizational structure of front office, qualities of front office staff, functions of front office, job specification, job description, duties of a front office person.**Unit – II****Reservation** – types of rooms, types of rates & plan, reservation system- types of reservation, reservation chart, cancellations.**Unit - III****Reception**-Role of the receptionist, pre-arrival, arrival and departure of guest, VIP procedure, handling mail.**Unit - IV****Amenities** –Assignment of room, spa, club, gym, swimming pool. list of guest supplies, complementary amenities, free wifi facilities.

Check in & check out procedure & mode of payment.**Text Book:**

1.Sudhir Andrews, *Hotel Front Office Training Manual* – Tata McGraw Hill Publishing Company Ltd. New Delhi, 2013.

Reference Books:

1. Hurst Rosemary, *Services and Maintanance for Hotels and Residential Establishments*, William Heinman Ltd., Upper Grosvenor Street, London, 2001.
- 2.JagmohanNegi, *Food and Beverage Costing*, Himalaya Publishing House, Bombay, 2001.
- 3.Raghubalan G and Smritee Raghubalan, *Hotel Housekeeping*, Oxford University Press, New Delhi, 2007.
- 4.Sudhir Andrews, *Hotel Front Office Training Manual* – Tata McGraw Hill Publishing Company Ltd. New Delhi, 1982.
- 5.Tharakan, Y G, *A guide to Food and Beverege*, Tata McGraw Hill Publishing Company, New Delhi, 2007.