



DIPLOMA IN DIETETICS AND PUBLIC NUTRITION

Course Name: Diploma in Dietetics and Public Nutrition

Duration: 1 Year

Eligibility: 10+2 with Physics, Chemistry and Biology

DETAILED SYLLABUS

Semester I	Semester II
Nutritional Biochemistry	Public Nutrition
Dietetics and Diet Counselling	Institutional Food Management
Human Physiology	Lab Course II
Lab Course I	Dissertation and Seminar, Field Work

SEMESTER I

PAPER 1: NUTRITIONAL BIOCHEMISTRY

CONTENT:

Unit 1: Chemistry and Metabolism of Carbohydrates, Lipids and Proteins, Disorders related to Carbohydrate, Lipids and Proteins metabolism

Unit 2: Vitamins- Definition, classification, absorption and role of vitamins in metabolism, deficiency diseases, Minerals- Definition, Types, Absorption and Function and Role of Minerals in Metabolism, Deficiency diseases

Unit 3: Water and Electrolyte Balance, Regulation of Electrolyte balance, Dehydration and Over hydration, Acid- Base Balance- Role of Buffers, Lungs and Kidney in maintaining acid, Base balance and related disorders.

Unit 4: Organ Function Test- Liver, Kidney, Gastric, Pancreatic, Thyroid Function Tests

Unit 5: Hormones- Definition, Classification, Mechanism of action, Hormones of Hypothalamus, Pituitary Gland, Thyroid Gland, Adrenal Gland, Gonads and Gastrointestinal Hormones

Suggested Readings:

1. Dasgupta, S. K., Biochemistry Vol. I; n & III, Mc Millan Co. of India Limited
2. Das, Debajyoti, Biochemistry 2nd ed., 1980, Academic Publishers, India.
3. Harper, H. A. et al, A review of physiological chemistry, Los Altos, Lange medical publications, 1985.
4. Lehninger, A. L., Principles of Biochemistry
5. Orten J. M. & Newhaus O. V, Human Biochemistry, C. V Mosby
6. Co. S1. Lois, JSA 1982.
7. Chatterjee Textbook of Medical Biochemistry
8. Biochemistry, U Satyanarayna, U. Chakrapani 4th edition

PAPER 2: DIETETICS AND DIET COUNSELLING

CONTENT:

Unit 1: Therapeutic Diets- basic concept, Therapeutic Adaptation of Normal Diet, Factors considered, routine hospital diets, mode of feeding methods, role of dietician in hospital and community, patient care and counselling, diet in weight imbalance and counselling.

Unit 2: Diet, Nutrition and Drug Interaction- effect of drug on ingestion, digestion, absorption and metabolism of nutrients

Unit 3: Diet in Fever, Anaemia- Resulting from acute haemorrhage, Nutrition anaemia, sickle cell anaemia, thalassemia, pathogenesis and dietary management in the above conditions

Unit 4: Food intolerance and Food allergies- treatment and prevention

Unit 5: Diet in Liver, Kidney, Nutrition in eating disorders

Suggested Readings

1. Mahan L. K., Escott- Stump, S. and Raymond J. L. (2012): “Krause’s Food and the Nutrition Care Process”, 13th Edition, Elsevier.
2. Ross, A.C., Caballero B., Cousins R. J., Tucker K.L. and Ziegler T. (2014) Modern Nutrition in Health and Disease. Wolters Kluwer Health/ Lippincott Williams and Wilkins. Ed 11th
3. Garrow, J. S., James, W.P.T. and Ralph, A. (2000): Human Nutrition and Dietetics. 10th Edition, Churchill Livingstone.
4. Nix Staci (2013)

PAPER 3: HUMAN PHYSIOLOGY

CONTENT:

Unit 1: Organization of Human Body, Digestive System- process of digestion, absorption and assimilation of food

Unit 2: Circulatory System, Hematology

Unit 3: Defense Mechanisms of the Body- Active, Passive Immunity, Factors affecting immunity

Unit 4: Respiratory System, Urinary System, Nervous System

Unit 5: Reproductive System

Suggested Readings

1. L Antony, C.A (1963), 'Text Book of Anatomy and Physiology', the c.v. Mosby Co., Saint Louis.
2. Bell G.H., Davidson, J.N., and Scarborough H. (1972) 'Textbook of Physiology and Biochemistry' London E.S. Livingston Ltd.
3. Best. C.H., and Taylor, R. B. (1965) 'The Living Body', London, Chapman & Hall Ltd.
4. Best. C.H., and Taylor. R.B. (1975), 'The Physiological Basis for Medical Practice' Calcutta, The Williams and Wilkinson Scientific Book Agency.
5. Guytons, AC. (1966), 'Text book of Medical Physiology', London, W.B. Saunders & Co.
6. Rogers, T.S, Elementary (1961), 'Human Physiology', New York, John Willey and Sons, Inc.
7. Green, H. (1972), 'An Introduction to Human Physiology' London, Oxford University Press.
8. K Sembulingam, Prem Sembulingam. Essentials of Medical Physiology.

PAPER 4: LAB COURSE I

CONTENT:

- 1.** Standardization of portion sizes for different food preparations.
- 2.** Routine Hospital Diets
- 3.** Diet in Weight imbalance and Counselling
- 4.** Diet in Fever
- 5.** To plan a diet for Nutritional Anaemia
- 6.** Diet in diseases of gastrointestinal tract and counseling
- 7.** Diet in liver diseases and counseling
- 8.** Diet in Kidney diseases and counselling
- 9.** Diet of metabolism disorder and counseling
- 10.** Diet in cardiovascular diseases and counselling
- 11.** To plan a diet for cancer

SEMESTER II

PAPER 1: PUBLIC NUTRITION

CONTENT:

Unit 1: Public Nutrition- concept, scope, future projections, health care, role of public nutritionists in health care delivery

Unit 2: Nutritional Problems in India

Unit 3: Population dynamics, Assessment of nutritional status

Unit 4: Nutritional Policy and Programs, Strategies to combat national nutritional problems

Unit 5: Nutrition and Health Education

Suggested Readings

1. Beaton GH and Bengoa JM. Nutrition in Preventive Medicine. WHO (1976).
2. FAO/WHO. Preparation and use of food based dietary guidelines. Report of a joint FAO/WHO consultation: Nicosia, Cyprus. Nutrition Programme, WHO, Geneva (1996).
3. Gibney M. J., Margetts B. M., Kearney J. M. and Arab L. Public Health Nutrition. Blackwell Publishing Company (2013).
4. National Nutrition Policy. Department of Women and child Development. Ministry of Human Resource Development, New Delhi, Government of India, 1993.
5. Park.K. (2017) Park's Textbook of Preventive and Social Medicine, 24th ed. M/s Banarsida Bhanot, Jabalpur.
6. Jelliffe, D. B and Jelliffe, E.F.P. (1989) Community Nutritional Assessment, Oxford University Press.
7. Wadhwa, A. and Sharma, S. (2003) Nutrition in the Community - A text book SCN News, UN ACC/SCN Subcommittee on Nutrition

PAPER 2: INSTITUTIONAL FOOD MANAGEMENT

CONTENT:

Unit 1: Institutional Food Management, Management of Spaces

Unit 2: Equipment, Food Management- food purchasing, menu planning, food service

Unit 3: Financial management- Definition and scope, cost concepts, cost control, pricing

Unit 4: Personnel management- Introduction, Recruitment, Selection, Induction, Training and Development

Unit 5: Hygiene, Sanitation and safety, Food standards in India

Suggested Readings

1. Sethi Mohini. 2nd Edition. (2016) Institutional Food Management, New Age International Publishers.
2. Sethi M. and Malhan S.– 3rd Edition (2015) – Catering Management an Integrated Approach. New Age International Publishers.
3. Arora R. K. (2007). Food Service and Catering Management. A.P.H. Publishing Corporation, New Delhi.
4. Kinton R. and Ceserani V. (1992). The Theory of Catering. ELBS with Hodder and Stoughton.
5. Scanlon N.L. (2007). Catering Management. John Wiley and Sons, Inc.

PAPER 3: LAB COURSE II

CONTENT:

1. Quantity cooking and basic principles
2. Planning meals for Institutional feeding
3. Planning and Organization for Industrial catering
4. Catering for special occasions and events
5. Preparation of prospectus for setting up a food service unit