Health Services Academy
Islamabad Park Road, Islamabad

POSTGRADUATE DIPLOPMA IN CLINICAL NUTRITION IN MEDICAL THERAPEUTICS (DCNMT)

PROSPECTUS

Health Services Academy,
Islamabad, Pakistan

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DIPLOMA IN CLINICAL NUTRITION IN MEDICAL THERAPEUTICS

INTRODUCTION :

Nutrition is an emerging science, and is gaining recognition on a global scale. Scientists and Medical professionals have begun to realize the importance nutrition plays for an individual's well-being. Pharmacotherapy only manages symptoms of a disease. It is deemed incomplete without nutritional support. Malnutrition is often the root cause of origin for many diseases. For instance, a diabetic cannot solely rely on metformin to control blood sugar without taking into account the dietary carbohydrates taken daily. Many reports have highlighted that pancreatic beta cell failure which initiates Diabetes Mellitus is mostly happening due to a condition known as insulin resistance. Hyperinsulinemia (due to insulin resistance) stems from consuming too much carbohydrate that the body cannot handle, ultimately leading to elevated plasma glucose levels despite the pancreas's efforts to normalize it. Malnutrition in the context of under nutrition is also one of the factors accounting for death in hospitals (especially in cases of pediatric diarrhea). Previously, medical setups in Pakistan did not seem to incorporate nutritional intervention in patient care, and it was a rarity to find a dietitian in a hospital some thirty years ago. Although the situation has somewhat improved today, there is still an existing gap. One of the reasons for this is the general lack of awareness in the population about the healing power God Himself has placed in His own medicine: Food.

Both inpatients and outpatients have specific nutritional requirements which could impact their health status if not met adequately. A drug may interact with certain nutrients in the body, or may impede their absorption. In some conditions, levels of certain nutrients can be depleted or elevated (as in the case of renal disease). Hence, it is important to address these factors when assessing for the patient's health.

Just as how training in medical sciences is undertaken, we need to equip students with the right knowledge (both theoretical and practical) and skills which will enable them to use the right dietary patterns and lifestyle counselling to treat (or at least manage) a disease/ health condition. The Post Graduate Diploma in Clinical Nutrition in Medical Therapeutics (CNMT) is a well-designed course for aspiring health care professionals looking to delve deeper in to the science of Clinical Nutrition, with the opportunity to apply the knowledge gained into practice within a clinical setting.

It is suitable for those willing to work collaboratively as part of an integrated medical team, ensuring a better prognosis for patients. The Diploma in CNMT focuses on hospital dietetics, purely based on clinical application of nutrition. Upon completion, students will be able to work with both in and outpatients, addressing their nutritional requirements with an aim to improve their quality of life. As hospitals increase in size and number, there is therefore a need to employ clinical nutritionists in every department of a hospital, as it is expected that their demand will rise in the future. Incorporation of nutritionists in clinical settings can improve the quality and design of healthcare in Pakistan.

COMPETENCIES OF THE DIPLOMA IN CNMT PROGRAM

The graduates of the DCNMT program will be able to:

- Understand basic human physiology and how the body processes nutrients (both macro and micronutrients).
- Understand how pathology in disease progresses.

- Apply knowledge to communicate confidently and effectively with patients, keeping in mind the ethical principles of professional conduct.
- Use assessment techniques to identify signs of malnutrition according to the disease.
- Understand the therapeutic use of foods in managing health conditions or diseases.
- Use foods to develop and implement the appropriate meal plan for a patient (in both inpatient and outpatient settings).
- Develop lifestyle and counselling skills to enable patients to adopt healthier lifestyle choices or achieve improvements in their nutritional status; and
  Coordinate well as part of a medical team

In order to achieve these core competencies each course has been tailored with its learning objectives which further lead to enrichment of the course content.

PROGRAM LENGTH

It is **One-Year** program comprising of 2 semesters and each semesters' duration is 6 months.

COURSE-WISE CREDIT HOURS AND MARKS DITRIBUTION FOR DIPLOMA IN CNMT

Semester	Course code	Course Title	Credit hours	Marks
Courses for First Semester of CNMT				

II	DCNMT507	**Introduction to Anthropometrics, Biochemical, Clinical and Dietary Evaluation**	3	150
II	DCNMT508	**Human Physiology and Advanced Metabolism**	3	150
II	DCNMT509	**Hospital dietetics**	3	150
II	DCNMT510	**Disease epidemics**	3	150
II	DCNMT511	**Nutritional Assessment & Screening and Medical nutrition therapy**	3	150
II	DCNMT512	**Child and maternal health**	3	150
Sub Total for First semester Credit hours/Marks			**18**	**900**
Courses for Second Semester of CNMT				
III	DCNMT513	**Supplemental therapy**	2	150
III	**Clinical nutrition clerkship**		6	300
Total Credit hours/Marks for Diploma in HHM			**26**	**1350**

3. COURSES FOR SEMESTER I DCNMT

DCNMT-507: Introduction To Anthropometrics, Biochemical, Clinical And Dietary Evaluation (3-Credit)

The objective of the course is to focus on nutritional assessment of patients in clinical setting to identify the presence and type of malnutrition as well as to point-out prevalent health-threatening issues concerning individuals in the community. It is to provide hands-on skills of nutritional screening so that suitable diets can be devised as prophylaxis against disease later in life. Course outcome are to evaluate nutritional status of individuals and identify nutrition related problems.

DCNMT508: Human Physiology and Advanced Metabolism (3-Credit)

The course covers the fundamentals of human physiology of major organ systems in the body and to instruct in-depth understanding of human biochemistry and how sugars, amino acids and fats are synthesized, digested and utilized at cellular and molecular level.

Students will be able to understand the way humans respond to food consumption and how they regulate metabolism, to ensure normal functioning and knowledge of metabolic pathways of vitamins, minerals and water balance.

DCNMT-509: Hospital Dietetics (3-Credits)

The objective of this course to give awareness about proper dietary therapy and lifestyle strategies to correct nutritional imbalance and tray lines for different diseases in hospital settings. Students will be able to analyze, modify diet menu, give recommendations and patient counselling.

DCNMT-510: Disease epidemics (3-Credits)

The objectives of this course is to learn about the prevalence of a disease and reasons of its spread around the globe. Moreover, the focus is ho|| a diet can impart a role to combat ||ith epidemics by improvise the immune system. Sampling and data analyzing are outcome of course either.

DCNMT-511: Nutritional Assessment & Screening and Medical nutrition therapy (3-Credits)

This course open wide horizons of the therapeutic role of macro and micro nutrients and its interaction with the body to treat diseases. Objective of this subject is to impart knowledge about importance of meal planning and its role in everyday life with special reference to hospital dietetics and To focus on practical application of principles of meal planning keeping in mind nutritional requirements of different age groups, family budget, food choices and food safety (HACCP). Deficiency and toxicity symptoms associated with improper intake of vitamins and minerals

DCNMT-512 : Child and maternal health

This course will elaborate contribution of good maternal health and nutrition care contribution to child survival against infections, neonatal morbidity and mortality. It will explain the importance of health of a woman during pregnancy, childbirth and postnatal period. And how good maternal health imparts good health destiny in a child that will ultimately build a health society.

DCNMT-513: Supplemental therapy (2-Credit)

A visit will be due for students towards a supplemental stores to take awareness about their dosages , variety and usage of a supplement for a particular disease.

DCNMT-Project Work-Clinical Nutrition Clerkship (6-Credit)

Clinical Nutrition Clerkship (CNC) is of 18weeks. Students will have direct interaction with patients and grip on disease of their specialized area.

They will prepare prevalence report, strategy for nutritional planning and management

METHOD OF SSESSMENT/EXAMINATION PROCEDURES AND RULES

Students will be evaluated during each course on the basis of;

1. **Formative assessment** which is a mix of the tests, end of course examination, class and home assignments, class participation, interactive discussions, practical exercises, field works and/or group works, end of course examination, depending on the course outline (ongoing assessment)

2. **Summative assessment** based on the end of semester examination papers. Summative assessments are held at end of semesters and comprises of semester examinations paper each.

ELIGIBILITY CRITERIA

Candidate holding a bachelor's degree in nutrition , food or any similar field from a recognized university.

AGE LIMIT

There is no Age-limit restrictions for admission in this Program.

DCNMT ADMISSIONS

DCNMT has its own Admissions Committee, comprising of Program Coordinator, the Registrar, a Senior Faculty Member, and one nominated alumnus/alumna. The Admissions Committee has the responsibility for the selection of applicants to be admitted to the Program. It establishes procedures for the timely review of applications to the Program. Deferrals of admission are at the discretion of the Admissions Committee. The selected candidates from the Admissions Committee will be exempted from any test or interview.

FINAL SELECTION

The applicant's acceptance is contingent upon the receipt of all required documents including official transcripts. The Admissions Committee is responsible for identifying those students with missing documents and/or credentials which do not meet eligibility standards.

Participant fee : Rs 120,000/-

Address:

Health Services Academy,
Park Road, Chak Shahzad, Islamabad.
051-9255592

Reference books:

1. Understanding Nutrition by Whitney and Rolfes.

2. Nutritive Value of Indian Foods by C. Gopalan, B.V. Rama Sastri and S.C.Balasubramian.

3. Krause's Food and The Nutrition Care Process by Mahan and Raymond.

4. Normal and Therapeutic Nutrition by C. H. Robinson.

5. Nutrition and Diet Therapy by P. S. Stanfield.

6. Manual of Clinical Nutrition Management by Morrison Management Specialties.

7. Fundamentals of Human Nutrition by Catherine Geissler and Hilary Powers

8. Nutritional Assessment by Robert D. Lee and David C. Nieman

9. Food Service Management by Maria Lutgarta Manuela B. Punay

10. The Plant-Based Diet Meal Plan by Cook Book

11. Food Safety Management Programs by Debby Newslow