

PERIYAR UNIVERSITY
Periyar Palkalai Nagar, Salem-636011

**Department of
Nutrition and Dietetics**



M.Phil. Clinical Nutrition and Dietetics
[Choice Based Credit System (CBCS)]

REGULATIONS AND SYLLABUS
(w.e.f. 2017-2018)

PERIYAR UNIVERSITY, SALEM
Department of Nutrition and Dietetics

Degree of Master of Philosophy (M. Phil) in Clinical Nutrition and Dietetics

**RULES AND REGULATIONS FOR ADMITTING THE STUDENTS FOR FULL-TIME
M.PHIL PROGRAMME**

The following are the rules and regulation for admitting candidates in **M.Phil. (Clinical Nutrition and Dietetics)** Programme in Periyar University, Salem from the Academic Year 2018 – 19 and thereafter.

1. Eligibility:

Candidates who have qualified for Post Graduate degree in Home Science/ Clinical Nutrition and Dietetics/ Food Science and Nutrition /Food Service Management and Dietetics /Human Science/ Nutrition and Dietetics/ Foods and Nutrition/Nursing/Applied Nutrition/Biomedical Sciences/ Biochemistry/Clinical Biochemistry/ Biotechnology/Life Science and M.A Home Economic /Post Graduate in Allied Health Sciences of any University recognized by the Syndicate as equivalent shall be eligible to register for the Degree of Master of Philosophy (M.Phil.) in Clinical Nutrition and Dietetics and undergo the prescribed course of study in the University

2. Department

For the candidates, who seek admission into M.Phil. course shall have obtained a minimum of 55% marks in his/her Master's Degree. However, for the candidates belonging to SC/ST community and those who have qualified for the Master's degree before 01.01.1991 the minimum eligibility marks shall be 50% in the Master's Degree.

3. Duration:

The duration of the M. Phil course shall be over a period of One Year from the commencement of the course in each academic year.

4. Course of Study:

The course of study of the degree shall consist of (a) Part-I comprising three Theory papers according to the Syllabus prescribed by the Board of Studies. Of which the third paper should be the Guide paper(s). The Guide paper syllabus is related to the expertise of the concern faculty and (b) Part-II Dissertation and *viva voce*.

5. Course Scheme and Scheme of Examinations for M. Phil (Clinical Nutrition and Dietetics) with effect from 2017-2018 onwards

Subject Code	Title of the Paper	Credits	Internal Mark/25	External Mark/75	Total Marks /100
18MPCNDC01	Advanced Research Methods and Statistics in Nutrition	4	25	75	100
18MPCNDC02	Advances in Clinical Nutrition and Dietetics	4	25	75	100
18MPCNDC03	Guide paper	4	25	75	100
18MPCNDD01	Dissertation and <i>viva voce</i>	12			200
	Total	24			500

6. Question paper setting

The following question paper pattern will be adopted

Part A 5 X 5 = 25 marks (Internal choice)

Part B 5 X 10 = 50 marks (Internal choice)

7. Viva-Voce will be conducted with the following members

Guide as Chairman, External examiner from other University from the related area as Member of the Board of Valuation. Double valuation procedure will be adopted for Dissertation, one by the respective guide and the other by the external examiner, preferably by the *viva-voce* examiner.

8. Scheme of Examinations

Part-I Theory Examination: (Three Theory Papers)

The examination of theory papers and Dissertation shall be held at the end of the year as per the examination procedures with the concurrence of Head of the Department. The duration for each paper shall be 3 hours carrying a maximum of 100 marks for theory papers and 200 marks is allotted for Dissertation and *viva voce*.

The examiners will be appointed from the panel of four names of each papers submitted by the Departments concerned. If the awarded total mark varies more than 10% between the Internal

and External examiners, the paper will be valued by a third examiner whose award of marks will be final.

Part-II-Dissertation and *viva voce*

The exact title of the Dissertation shall be intimated within one month after the completion of the Theory paper examination. Candidates shall submit the Dissertation to the University through the Supervisor and Head of the Department at the end of the academic year from the commencement of the course, which shall be valued by internal examiner (Supervisor) and one external examiner appointed by the University from a panel of four names sent by the supervisor through the Head of the Department.

The examiners who value the Dissertation shall report on the merit of candidates as “Highly Commended” (75% and above) or “Commended” (50% and above and below 75%) or “Not Commended” (below 50%).

If one examiner commends the Dissertation and the other examiner, does not commend, the Dissertation will be referred to a third examiner and the third valuation shall be final. Submission or resubmission of the Dissertation will be allowed twice a year.

Passing Minimum:

A candidate shall be declared to have passed part-I of the examination if he/she secured not less than 50% of the marks in each paper including paper-III for which examination is conducted internally. A candidate shall be declared as pass in the Dissertation *viva voce* examination if his/her dissertation is at least commended. All other candidates shall be declared to be failed in the examination. All other parts of general rules for M.Phil Programme is applicable henceforth or modifications in rules and regulations.

Restriction in number of chances:

No candidate shall be permitted to reappear for the written examination in any paper on more than two occasions or to resubmit a Dissertation not more than two times. Candidates shall have to qualify for the degree passing all the written papers and dissertation within a period of three years from the date of commence of the course.

Conferment of Degree:

No candidate shall be eligible for conferment of the M.Phil. Degree in Clinical Nutrition and Dietetics unless he/she is declared to be passed both in the Theory papers and Dissertation and *viva voce* of the examination as per the Regulations.

9. Qualifications for persons conducting the M. Phil., course

No teacher shall be recognized as a Supervisor unless he/she possesses a Ph. D., degree or two years of PG teaching experience after qualifying for M. Phil., or M.Litt., Degree.

M.Phil. Clinical Nutrition and Dietetics Course**ADVANCED RESEARCH METHODS AND STATISTICS IN NUTRITION****Objectives**

- To understand the application of statistical tests for analysis and interpretation.
- To relate the various research methods and techniques available to carry out effective research.
- To enable students to develop appropriate research methodologies and to analyze the research outcomes of future research.

UNITS	Topics Details
UNIT I	<p>Nature, Methods and Techniques of Research</p> <p>a) Research Methodology-Definition, objectives, deductive and inductive methods in research, Merits and demerits of conducting nutritional research in India, uses of information in research, avoiding subjectivity and achieving objectivity.</p> <p>b) Methods of study, Forms of scientific methods, Application of different methods to different fields, Techniques of study</p> <p>c) Classification of research- Basic, Applied, Descriptive, Historical, Formulative or Exploratory, Experimental, Ex-post facto, The case study, Survey research, Evaluation research, Assessment study, Comparative method and its precautions.</p>
UNIT II	<p>Problem Selection and Formulation</p> <p>a) Characteristics of Research of Monograph, Dissertation and Thesis.</p> <p>b) Selecting a topic for research, research problems – types, components, sources, survey of literature, technique of skimming.</p> <p>c) Work criteria of a good research problem- Formulating and stating, Definition, Delimitation, Justification, Evaluation.</p>
UNIT III	<p>Research Design</p> <p>a) Research Design- Meaning, Need, Features</p> <p>b) Different Research designs in nutrition studies– Exploratory studies, Descriptive studies, Diagnostic studies, Experimental studies, Hypothesis-testing research studies, Major steps in preparing research design, evaluation, factors affecting, Conclusion.</p> <p>c) Experimental Designs- Basic principles, Types- Before and After without control design, Before and After with control design, After only with control design, C.R design, R.B. design, L.S. design, Factorial designs.</p>
UNIT IV	<p>Statistical Application in Clinical Nutrition and Dietetics Research</p> <p>a) Statistical Research-Percentages, Frequency distribution, Measures of central tendency – Mean, Median, Mode, Standard deviation.</p>

	<p>b) Parametric tests of difference- T test, ANOVA, Parametric tests of association: Pearson's product moment co-relation, Regression Analysis.</p> <p>c) Non-parametric tests of difference - Mann-Whitney, Sign, Median, and Kruskal -Wallis, Chi square test, Non-parametric tests of association: Spearman's rank co-relation.</p>
UNIT V	<p>Research Communication</p> <p>a) Essentials of a scientific report, categories of audience report, oral report, written report, stages in preparing research report.</p> <p>b) Drafting report- first, second and end draft. Presentation of sampling errors, inconclusive or negative results in report, significance of report writing.</p> <p>c) Types of report- technical and popular, Structure of research report, Mechanics of writing research report.</p>

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- Gupta S.P (2012) statistical Methods, Sultan chand & sons
- Goode, WJ and Hatt, PK (1981) Methods in Social Research, McGraw Hill International Editions, Sociology Series.
- Kerlinger, FN (1983) Foundations of Educational Research. 2nd ed.
- Marjory L. Joseph, William D Joseph (1996) Research Fundamentals in Home Economics / Human Ecology. Plycon Press
- WHO(2001) Health Research Methodology – A Guide for Training in Research Methods.
- Stenning, R J (1991) The Psychologist's Companion: A Guide to Scientific Writing for students and Researchers. Cambridge: CUP.
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- Cresswell J: Research Design: Qualitative and quantitative Approaches Thousand Oaks CA, Sage Publications.
- P.N.Arora and P.K.Malhan (2010) Biostatistics Himalaya Publishing House.

M.Phil. Clinical Nutrition and Dietetics Course**ADVANCES IN CLINICAL NUTRITION AND DIETETICS****Objectives**

- To enable the students to understand formal nutrition care process along with overview of nutrigenomics
- To acquire skill on Clinical assessment techniques and enhance the quality of health
- To relate the diet and drug interactions for sustainable nutritional status

UNITS	Topics Details
UNIT I	Nutrigenetic and nutrigenomics <ol style="list-style-type: none"> The human genome projects-introduction, clinical applications Geno type and nutrition assessment Genetic fundamentals-nutrigenetic and nutrigenomics, genetic basics, mode of inheritance and penetrance-mendelian inheritance, mitochondrial inheritance Genetics and nutrition therapy -nutritional genomic influences on metabolic process, nutritional genomic influences on gene expression, genetic variability.
UNIT II	Screening of dietary and clinical data <ol style="list-style-type: none"> Nutritional imbalance, Nutritional screening, Nutritional assessment- Medical History, Social history, Medication history, Diet history, Nutrient intake analysis, Anthropometry Nutrition focused physical examinations -Physical signs, immune function, hand grip dynamometry, biochemical analysis
UNIT III	Assessment of laboratory data <ol style="list-style-type: none"> Definitions and usefulness of nutrition laboratory data- specimen types, assay types Nutrition and interpretation of routine medical laboratory test-clinical chemistry panels, complete blood count, urine analysis Assessment of hydration status Assessment for protein calorie malnutrition-hormonal and cell mediated response to stress, nitrogen balance, hepatic transport proteins, c-reactive proteins, creatinine, immunocompetences
UNIT IV	Effects of food and drug interactions <ol style="list-style-type: none"> Pharmacological aspects of food drug interactions -pharmaco dynamics Risk factors for food drug interactions-phamaco-genomics Effects of food on drug therapy -drug absorption, medical entral nutrition interactions, drug distributions, drug metabolism and drug excretion

	<p>d) Effects of drug on food and nutrition-nutrient absorption, nutrient metabolism, nutrient excretion</p> <p>e) Excipients and food drug interactions</p>
UNIT V	<p>Nutrition for sports and exercise performance</p> <p>a) Fuel for contracting muscles- sources of fuel, intensity, duration, effects of training</p> <p>b) Nutritional requirements of exercise</p> <p>c) Macronutrients -carbohydrate, protein, fat</p> <p>d) Micronutrients -vitamins and minerals</p> <p>e) Fluids -fluid balance, daily fluid needs, fluid replacements, fluid absorption</p>

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4. Sports Medicine: The school age athlete by Bruce Reider. 1996. Published by W.B. Saunders.
5. Nutrition for Serious Athletes. Dan Banardot. 2000; Human Kinetics.
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Journal references

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