

REGULATIONS

**For courses affiliated to the
Kerala University of Health Sciences**

Thrissur – 680593



Master of Philosophy

MPhil in Translational Ayurveda

(Part Time)

By

School of Fundamental Research in Ayurveda

Tripunithura, Ernakulam

(2020-2021 Academic Year onwards)

2020

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REGULATIONS RELATING TO THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY IN TRANSLATIONAL AYURVEDA

These regulations may be called 'The Regulations relating to the award of the Degree of Master of Philosophy in Translational Ayurveda '.

Title: The program will be known as MPhil in Translational Ayurveda under the Faculty of Ayurveda, Kerala University of Health Sciences. This is a part time post PG (Ayurveda) course identical to the super specialty degree in Research Methodology.

Aim of this course is to invigorate research attitude of Ayurveda postgraduates and thereby prepare them to generate evidence basis for Ayurveda concepts and practice

Course objectives

- 1 To provide skilled human resource who can generate ideas, interpret principles, standardize classical as well traditionally used drugs and their dosage forms, validate their effectiveness and translate them into clinically viable products
- 2 To offer the aspirants a deeper understanding of translational research which would improve fundamental understanding of Ayurveda, strengthen the evidence base of Ayurvedic clinical practice, and to create policies for mainstreaming Ayurveda in public health management
- 3 To inspire the aspirants to become the next generation leaders in translational research which is necessary for the global acceptance of Ayurveda

- 4 To promote scientific validation and generate quality scientific data in Ayurveda

Course outcomes

1. Learn how to conduct and interpret translational research as well as management of qualitative and quantitative data
2. Learn how to explore ideas and principles of Ayurveda into clinically plausible tools and guidelines
3. Learn how to translate leads from Ayurvedic raw drugs and finished products into clinically viable drugs and other value-added products
4. Learn how to design and implement various projects in Ayurveda in different research settings
5. Learn how to design feasible public health initiatives and convert the outcomes into leads for policy development

Definitions

In these Regulations, unless the context otherwise requires-

- (i) 'Act', 'Statutes', 'Ordinances' and 'Regulations' mean respectively the Act, Statutes, Ordinances and Regulations of the Kerala University of Health Sciences.
- (ii) 'Centre for Research' means the School of Fundamental Research in Ayurveda (KUHS), Tripunithura, Ernakulam
- (iii) 'Research Fellowship' means regular monetary assistance awarded to a Research Scholar and includes the National Merit Scholarship, University Scholarship and those offered by approved agencies such as ICMR, AICTE, AYUSH, UGC, NCERT, ICAR, ICSSR, DST, DBT, CSIR, Statutory Councils, other Universities etc.
- (iv) 'University' means the Kerala University of Health sciences (KUHS) if not otherwise specified.

- (v) 'Laws of the University' means the Act, Statutes, Ordinances, Regulations and Rules of the University as the case may be.
- (vi) 'Registration' means registration in the Kerala University of Health Sciences as a candidate for part time M Phil Degree in Translational Ayurveda under these Regulations.
- (vii) 'Guide' means a teacher who is a qualified Guide to supervise research as per the respective M Phil Course Regulations of KUHS and Statutory Council norms if available.
- (viii) 'Examiner' means the expert appointed for evaluation as per the MPhil Course Regulations, KUHS, and Statutory Council norms, if any.

1.1 Eligibility for Admission

The candidates should have passed MS/MD (Ayurveda) degree, approved by the Kerala University of Health Sciences. The candidates should not be aged more than fifty years on the forthcoming date of December 31st. There is a system of reservation for teaching faculties and ISM doctors. If required number of seats is not filled by reserved one, the seats will be filled by other category.

- 1. Teachers working in Ayurveda Colleges affiliated to KUHS : 3 seats
- 2. Doctors working in institutions under Department of ISM, Government of Kerala : 2 seats
- 3. Open seats : 1 (candidates not belonging to the above mentioned categories)

Centre for conduct of the MPhil Course: The School of Fundamental Research in Ayurveda (KUHS), Tripunithura, Ernakulam will be the center for conduct of the course.

1.2 Mode of selection:

The selection is merit based with an Entrance Examination for 150 marks of 3 hours' duration (150 questions with one mark for each question), conducted by KUHS. All are objective type questions. The area includes, basics of Research Methodology, Biostatistics and Bioethics (Distribution of questions for the entrance examination from these 3 subjects will be approximately 60:25:15 percentages).

- In case of tie in the marks, ranking will be done based on the age of the candidate and higher age getting higher rank. If there is any tie again, the track record on research interest and experience as indicated in the bio-data will be considered to decide on the rank for eligibility; higher getting better rank. The validity of select list will be for one month.

1.3 Application Fee : As fixed by KUHS from time to time.

1.4 Number of seats per year:

6 seats to start with. The number of seats may be increased from time to time.

1.5 Minimum requirements for conduct of course

Building and Space requirements: The School of Fundamental Research in Ayurveda is located at Trippunithura. This is a new course, first time in Kerala starting an M Phil course in Ayurveda, though there are M Phil courses in Ayurveda outside Kerala.

Faculty requirement -There are a number of teachers holding PhD in Ayurveda and a good number of senior faculty with more than 10 years' experience as post-graduate guides in various Ayurveda Colleges of

Kerala State, who can function as guest faculty. External faculty shall be invited from outside state and foreign Universities as per requirement.

1.6 Registration of students to University

The in-service candidates should apply through their Controlling Officer with appropriate NOC (No Objection Certificate) from the Controlling Officer and written agreement of sponsorship, if any, should be submitted along with application for registration.

Online registration: The registration of students may be done as in the case of admission of UG, PG & MPhil courses in the affiliated institutions of KUHS. The admitting authority will be the Professor/HOD, School of Fundamental Research in Ayurveda, Trippunithura.

1.7 Course Fees:

The course is designed as a part-time course. The total duration is two academic years. Total Course Fee is as fixed by KUHS from time to time, shall be remitted as lump sum per year. The examination fees should be remitted separately to the University as per the rules of Kerala University of Health Sciences as applicable to other MPhil Courses.

1.8 Medium of instruction

The medium of instruction and examination is English.

1.9 Attendance and course period:

The duration is two academic years. This is organized as four semesters for two years of study period. Maximum duration permitted for completing the Course is double the duration of the course prescribed, i.e., 4 years. Minimum 80% attendance of the stipulated learning hours in each year is needed for registering for the examination.

1.10 Leave, Holidays

Not applicable

1.11 Monitoring Learning Progress:

As this is primarily a research-oriented program, a special mentorship program will be there for supervision of learning and thesis work. One faculty from the panel of teachers approved by KUHS, will act as mentor and thesis guide (methodology expert) for the candidate throughout the course. There will be permission for one or two co-guides (subject experts) related to the same subject/area of the study and preferably from the same centre or nearby institution of the candidate. There will be a separate logbook for monitoring the academic performance of each candidate approved by the Guide and Co-guide scheduling and documenting mentor mentee relationships.

1.12 Transfer during course

Not applicable

1.13 Duration permitted for completion of the course

Two academic years as part time contact and e-learning methods, for completion of total 1600 learning hours (175 hours for theory including skill development and protocol development during first year at SFRA, Trippunithura or KUHS Head Quarters, Thrissur, and 175 hours during second year (7 hrs. from 9 am-5 pm/day excluding 1 hr. lunch break for 25 days per year) and 42 hrs. of contact class during the one week mop-up at the end of the course, totaling to 392 hrs. the rest 408 hours will be of supervised distance learning based on e-learning/modules. There will be 800 hours of thesis work at the parent institution or in the community (during the total course period). Two consecutive days, preferably Saturday (second Saturday) and Sundays will be arranged for contact classes of every month of the course and one week towards end of second year as mop-up of contact classes, for discussion of progress

of thesis as well as knowledge transfer of topics of advanced epidemiology and Biostatistics, which are not covered elsewhere.

Whether two courses can be studied at a time simultaneously: Two part time courses / one full time course and a part time course cannot be studied simultaneously.

1.14 Internal Assessment:

Internal assessment of the candidate consist of assessment of regularity of attendance, extent of involvement and interest expressed in the academic activities as reflected in course log book and also the marks obtained during the formative evaluation. The structure of the internal assessment marks is given below.

- a) Log book - 10 marks
- b) Presentations / seminars / debate / symposia / journal clubs / CME / Conference – 10 marks
- c) Topic presentation in the form of Specific assignments – 10 marks
- d) Participation in CME, Educational activities, crash courses in concerned topics offered by other reputed institutions – 10 marks
- e) Marks of the formative evaluation is by sessional examinations – 60marks
 - a. Each formative internal assessment will be of 20 marks each and average of the best two (2) out of the 3 assessment will be taken to calculate final internal assessment. Not less than 50% marks is required in the formative evaluation to attend the second year University examinations. The formative evaluation includes theory, practical and assignments.

1.15 Thesis Submission

The thesis should be submitted one month prior to the registration for final University examination.

1.16 Appointment of Faculties

Eligibility: Those who are having PhD in Ayurveda or three years' experience as Professor will be eligible for faculty. Mode of appointment as per KUHS rules and regulations. Panel of faculties will be proposed by Professor in charge of School of Fundamental Research in Ayurveda and faculty will be appointed from the panel approved by the Hon. Vice Chancellor. The approval of the guides is as per the general regulation for M.Phil Courses.

1.17 Examinations

Final summative examination by the University is as per examination scheme given below.

a) Schedule of Examinations

Group	Papers	Topics	Duration	Maximum Marks	Minimum for a pass	Schedule
Group A Theory	Paper I *	Basic Research Methodology, Bio-Statistics and Research Ethics and EBM	3 hours	100		University Written Examination (End of 1st year)

	Paper II	<p>Fundamentals of research in Ayurveda – importance, areas and challenges</p> <p>Qualitative Research – importance, methods and uses in Ayurveda</p> <p>Techniques used in Samhitas – comparison with current methodology</p> <p>Translational Ayurveda Traditional, complementary, alternative and integrative medicines, Translational research and translational medicine</p> <p>Evidence based practices and its general outline</p> <p>Tool Development - importance, methods and uses in Ayurveda</p> <p>Literary Research - importance, methods and uses in Ayurveda. Documentation and publication in Ayurveda – current status</p>	3 hours	100		University Written Examination (End of 1st year)
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	Paper III	Primary Health Care Health promotion and education – Status of Ayurveda Basic Life Support and First Aid Health Care Counselling Management of Health Facilities Management of resources and support systems Management of quality of care Engage Stakeholders in service delivery Technology and innovation Disaster management and health Family Health	3 hours	100		University Written Examination (End of 2nd year)
		Total for Group A		300	150	
Group B Thesis and problem solving exercise	Paper IV	Hard copy Evaluation of Thesis		100	50	University (End of 2nd year)
	Paper V	Thesis Defense (<i>presentation and Viva-voce related to thesis</i>)	1 hour (presentation of 40 minutes and discussion for 20)	100	50	University examination (End of 2nd year)

	Paper VI	Log book Assessment and Interpretive and Problem solving exercise in a. Translational Ayurveda (1. Interpretation of a Statistical Software output. 2. Investigation of disease outbreak/ choice of study design including program evaluation appropriate to given objectives 3. Critical review of a structured abstract of a published article.) b. Biostatistics (should not be duplication of epidemiology and be on biostatistics, like calculation of confidence intervals, calculation of adjusted rates, SMR etc.) c. Health economics (calculation of ICER, micro-costing exercise, comments on an individual fiscal policy, results or methodology section of published economic evaluation article)	1 hour (30+15+15 minutes)	100 (including 25 marks for Logbook)		University examination (End of 2 nd year)
		Total for Group B		300	150	
		Grand Total		600	300	

* **Paper I** As that for other MPhil programs of KUHS

b) Scheme of examinations

b. 1. Valuation Strategy

Group A: Two Internal examiners and two External examiners will evaluate independently the three (3) papers in group A and give independent marks. Average of independent evaluations will be taken as the final marks to be

uploaded to the University. Revaluation is not allowed, normally, as there are four independent evaluations for each paper. Re-totaling is permitted.

Group B: Two Internal examiners and two External examiners will evaluate all the three (3) papers in group B independently and give separate independent marks. Average of independent evaluations will be taken as the final marks to be uploaded to the University. Revaluation is not allowed, normally, as there are four independent evaluations for each paper. Re-totaling is permitted.

- c) **Obstruction in conduct of examinations:** Nil anticipated
- d) **Clubbing of examination centres:** Not applicable now.
- e) **Question paper pattern:** As appended (model question paper)
- f) **Scrutiny of Question Papers:** As per KUHS norms.
- g) **Question paper setters from inside State/outside State**
As from approved panel by the KUHS
- h) **Interdisciplinary observers:** As from approved panel by the KUHS
- i) **Checking of Answer books before sending for valuation**
Same pattern for Postgraduate examinations of KUHS
- j) **Thesis/Dissertation for the PG Courses**

The candidate will have to work on a specified research theme under a guide approved by KUHS and submit a thesis at the end of the second year, one month before the University examinations. The topic and synopsis (with protocol for research study) should be finalized by the end of six months of start of course and informed to KUHS. The Thesis can be on the topic developed in the discipline of the candidate and the content expert can be the Co-guide. In collaborative research with external institutions, the mentor in that institution shall be one of the Co-guides. The Biostatistics or Social Science faculty also shall be the Co-guides.

Details will be described in a separate module describing methodological issues of study conduct.

k) Regulations for the conduct of Practical and Viva voce

Same pattern will be continued as described above

l) Valuation Strategy: KUHS pattern as above

m) Conditions under which candidates are permitted to proceed to the next higher class

80% attendance for the first year and who have registered for first year University examination.

n) Meeting of Pass Board: As per KUHS pattern

1.18 Criteria for pass

A minimum of 50% marks is needed for Group A and Group B separately for a pass. A minimum of 50% marks is needed for Paper V (Thesis Defense, *presentation and Viva-Voce related to Thesis*). A candidate failed for one of the groups (Group A or Group B) needs to appear for that group only in the subsequent examination. There will be no grace marks.

1.19 Grace Marks

Not applicable

1.20 Criteria for promotion to second year

Eighty Percentage (80%) attendance for the first year and who have registered for first year examination.

1.21 Carry over benefit

Carry over benefit will be provided

1.22 Issuance of mark lists and Certificates

This will be provided at the successful completion of the course.

1.23 Declaration of Class (Regular/Supplementary)

There is only provision for pass or fail. However, those who are securing $\geq 80\%$ of total aggregate marks of both Group A and B will be awarded with distinction.

1.24 Declaration of rank

First and second ranks will be awarded based on the aggregate marks.

1.25 Attempt/Chance

Allowed within double the duration of the course.

1.26 Partial Appearance of Examinations

Partial appearance will be permitted if the candidate secured the required attendance for all the subjects of that year.

1.27 Condonation of Break of Study

General policy KUHS on condonation of break of study will be applied.

1.28 Internship

Not applicable

1.29 Transcript: The Recommended KUHS pattern may be followed. However, the following data may be included at the appropriate places in the document.

No. of Working Days	Total 56 days (392 hrs.) of contact class having 8 hrs. Per day (9 AM-5PM with 1 hr. lunch break) as contact sessions plus distance learning hours (Total 408 learning hrs.). These together constitute 800 hrs. of actual learning hours without thesis work. Thesis work including data collection and analysis 800 hours. Total: 1600 Teaching – Learning Hours
No. of Hours/Days for contact sessions	8 Hrs. and 20 minutes/day, 9am-5.30 pm
Thesis Preparation	2 days per week during second half of first year and 3 days per week during first half of second year and 2 days per week during second half of second year. Thesis preparation is expected to be using total 800

	learning hrs including discussion with mentors distance learning platforms and participation in topic presentations, seminar and open forums in Headquarters.
Classes	Contact and distance learning for theory and practical 800 hrs. (50% of total learning hrs.) Contact classes 392 hrs. (approximately 50% of learning without thesis work). Distance learning including e-learning – 408 hrs. Thesis work – 800 hrs. (approximately 50% of total learning hrs.)
Total Academic Hours	1600 hours.

1.30 Stipend

No stipend will be provided

1.31 Eligibility for award of Degree

No candidate shall be eligible for conferment of the MPhil degree unless he/she is declared to have passed the full examination as per regulations laid down above.

MPhil- Translational Ayurveda - Syllabus

Paper I – Research methodology and Medical Statistics

Syllabus common to all MPhil programs

Module 1: Introduction to Research methodology

Module 2: Basic epidemiology and clinical epidemiology

Module 3: Biostatistics

Module 4: Health social sciences and Clinical health economics

Module 5: Bioethics and Biocomputing

Module 1: Introduction to Research methodology

1. **Educational Research:** Meaning, aims, nature and scope of educational research, Characteristics and prerequisites of educational research, Types of educational research and Research needs in different subjects of education.
2. **Research Problem:** Meaning of research problem, Sources of research problem, Criteria / Characteristics of a good research problem, Errors in selecting a research problem.
3. **Methods of Educational Research:** Qualitative research, Phenomenological studies, Ethnographical studies, Case studies, Historical studies, Philosophical studies. Quantitative research, Experimental research, Quasi- experimental Research, Surveys, Correlation studies and Action research
4. **Developing a Research Proposal:** Format of research proposal, Individual research proposal, Institutional proposal
5. **Hypothesis:** Meaning, Types of hypothesis.
6. **Sampling:** Sampling and Population, Techniques sampling selection, Characteristics of a good sample and Sampling errors and how to reduce them

Module 2

A. Basic Epidemiology

1. Introduction, Historical aspects and Definition- Epidemiology and Clinical Epidemiology
2. Development of Clinical Epidemiology- Global Trends INCLIN, IndiaCLIN
3. Type of Epidemiological studies – Introduction
4. Study Designs- in detail
 - a) Observational studies: Case control, cohort , case series, surveys,
 - b) Experimental studies: Clinical trials

5. Sources of Data and Data Collection
6. Morbidity and Mortality
7. Measurement of burden of illness – Incidence, Prevalence, Cumulative incidence.
8. Standardization of Rates- Principles – and Methods
9. Risk and Causation
10. Clinical errors: Bias and Chance, Clinical agreement and disagreement.
11. Evaluation of diagnostic tests – Normal range
12. Diagnosis – Decision making – Decision analysis.
13. Prognosis
14. Treatment – Clinical trials – Efficacy – Effectiveness.
15. Meta- analysis and systematic reviews
16. Evidence based medicine and Knowledge management
17. Prevention
18. Critical appraisal – selecting and reading Medical literature.
19. Application for Grants and Grant review.
20. Abstracting and Editorial writing.
21. Qualitative research: introduction

B. Clinical Epidemiology

1. Epidemiological data analysis in detail
2. Concept of validity and epidemiological inference in detail
3. Multivariate analysis
4. Model building
5. Clinical prediction
6. Infectious disease epidemiology including surveillance
7. Health system epidemiology
8. Social epidemiology

9. Epidemiology of non-communicable diseases including Cancer Epidemiology
10. Environmental epidemiology including cancer
11. Reproductive epidemiology
12. Genetic epidemiology
13. Nutritional epidemiology
14. Injury epidemiology

Module 3: Biostatistics

1. Definition of Statistics – Descriptive and inferential statistics – Population, sample, Parameter, statistics – type of variables
2. Tools and Techniques of data collection
3. Central tendency and its measures – Measures of variability – Grouped data – Percentiles, quintiles, ranks
4. Probability – Factorial notation – Bayes' theorem.
5. Populations, samples – Random and Non Random samples – Random Number Table.
6. Distributions – Binomial, poisson, normal distributions – fitting a normal distribution, to grouped data – central limit theorem
7. Point estimation – interval estimation – confidence intervals – Difference between Means
8. Hypothesis testing – power – sample size – Type I and Type II error – Testing in Normal, binomial and "t" distributions
9. Co-relational Techniques
10. Tests for normality of underlying distributions.
11. Frequency data – chi square.
12. Regression and correlations.

13. Analysis of variance
14. Bayesian methods introduction
15. Multiple regression
16. Multiple correlations 2x2 table
17. Dummy Variables.
18. Analysis of variance – Two ways.
19. Analysis of co variables
20. Statistical influence
21. Confounding and effect modification
22. Sample size calculation.
23. Basics of Logistic regression.
24. Basics of survival analysis – life tables.
25. Non parametric methods
26. Reliability and validity of test score

Module 4: Health social sciences and Clinical health economics

A. Health social sciences

1. Introduction to sociology and behavioral medicine.
2. Role of social aspects and patient behavior in medical research and clinical practice.
3. Questionnaire design and pretesting on behavioral and social aspects.
4. Qualitative research methodology: FGD, types of interviews.
5. Abnormal illness behavior and sick role.
6. Interviewing and Communication skills.
7. Social determinants of health and illness

8. Steps in developing a new instrument
9. Socio-cultural aspects of pharmaceutical use/ illness behavior/health program
10. Evaluation

B. Clinical health economics

1. What is economics: Microeconomics, welfare economics and health economics
2. Introduction to Health Economics, Efficacy, Effectiveness, availability, Efficiency Vs Effectiveness, Optimal allocation of scarce resources, Distribution of resource issues, Differing perspectives
3. Health care market characteristics and functions, Risk pooling and insurance in Private and public sector
4. Health care utilization and Health expenditure. Out of pocket spending for health
5. Health economics in India
6. Practical costing
7. Economic Evaluation. – Elements of sound economic evaluation, – Cost Minimization, Cost effectiveness, Cost utility, Cost benefit analysis in detail.
8. Detailed guides for efficiency studies, cost of illness methodology, preferences for Health outcomes (comparison of assessment methods) Limitation of economic Evaluation techniques
9. Incorporating economic evaluation in research protocols.
10. Decision theory in Medicine and Decision analysis.
11. Critical appraisal of health economic article
12. Health related quality of life

Module 5: Bioethics and Biocomputing

A. Bioethics

1. Introduction & History of science of ethics of medicine
2. Individual and societal rights.
3. Principles of ethics
4. Confidentiality
5. Informed consent
6. Functioning of IRB
7. Ethical guidelines for doing Clinical Research, Field Studies, Social Science Research, Genetic Research, Animal Experiments
8. GCP ICH guidelines
9. Ethical principles of social science research
10. Trial regulation in India
11. Research misconduct and means to prevent it.

B. Bio-computing

1. Introduction to personal computer.
2. Introduction to DOS.
3. Word Perfect and Typing exercise.
4. Questionnaire design.
5. Data editing, Data base management
6. Office software: Word, Excel, Power-point , other equivalent
7. Analysis of RCT data.
8. Data analysis for differential diagnosis, Risk factors, prognostic factors, prognostic review

9. Computer graphics – Charts, diagrams.

Paper II – Fundamental and Translational Research in Ayurveda

Module	Name	Hours
Module 6	Fundamentals of research in Ayurveda – importance, areas and challenges	20
Module 7	Qualitative Research – importance, methods and uses in Ayurveda Techniques used in Samhitas – comparison with current methodology	50
Module 8	Translational Ayurveda Traditional, complementary, alternative and integrative medicines, Translational research and translational medicine Evidence based practices and its general outline	30
Module 9	Tool Development - importance, methods and uses in Ayurveda	40
Module 10	Literary Research - importance, methods and uses in Ayurveda. Documentation and publication in Ayurveda – current status	30

Detailed syllabus

Module 6 - Fundamentals of research in Ayurveda

1. Fundamentals of research in Ayurveda - Importance, areas and challenges
2. Need for exploration of concepts.
3. Introduction to General management principles

4. Introduction to public Health Management
5. Various clinical research methods to explore the safety and efficacy of Ayurvedic products and practices.
6. Development and implementation of clinical research hypothesis and protocol development. Trial designing and implementation.
7. Ethical conduct of biomedical researches involving human participants.

Module 7 - Qualitative Research

1. Qualitative Research – importance, methods and uses in Ayurveda
2. Approaches and their application in Ayurveda
3. Techniques used in *Samhitas* – comparison with current methodology
4. Level of evidences described in the *Samhitas*.
5. Updating and better utilizing diagnostic, assessment and treatment methods.
6. Systematic review of clinical studies and publication of clinical trial data

Module 8 - Translational Ayurveda

1. Translational Ayurveda
2. Traditional, complementary, alternative and integrative medicines, Translational research and translational medicine – definition and dimensions.
3. Evidence based practices and its general outline - major guidelines and publications.
4. The translational science spectrum.
5. Translational ayurveda – dimensions, challenges and scope.
6. *In-vitro*, *in-vivo* and *in-silico* methods in for assessing quality, safety and efficacy of ayurvedic drugs and products. Biochemical, cytogenetic, and phytochemical methods for the evaluation of Ayurvedic drugs. Methods and application of computational biology in Ayurvedic research.

Translational drug research – definition, scope and components.
Genomic and epigenomic methods in translational science. Pharmacology and reverse-pharmacology approaches for the evaluation of Ayurvedic drugs.

7. Methods for implementation of plausible findings of clinical research into general population.
8. Design and implementation of pragmatic and community intervention trials.

Module 9 - Tool Development

1. Tool Development - importance, methods and uses in Ayurveda.
2. Tool validation and diagnostic test evaluation.
3. Collaborative research and benefit sharing.
4. Needs assessment:- Introduction to health needs assessment, Principles and concepts of health needs assessment, Methodology- How to do it, Utility - Using the health needs assessment, Illustrative examples
5. Situation analysis:- Introduction, Context, Utility, Methodology
6. Planning, Organisation and Implementation of community health services
7. Basic Concepts of Health Planning, Preparation for Planning, Steps in the Planning Process, Essential Health Package.
8. Systematic review of clinical studies and publication of clinical trial data.

Module 10 - Literary Research

1. Literary Research - importance, methods and uses in Ayurveda.
2. Referencing from the Samhitas and from the online databases.
3. Methods of literature search, handling large data – datamining, reviewing the literature, basic methods for understanding the genomic, biochemical and phytochemical dimensions of Ayurveda.
4. Application of qualitative methods for exploration existing information.

5. Documentation and publication in Ayurveda – current status.
6. Latest developments regarding basic concepts of Ayurveda

Paper III – Public Health Programmes and Evaluation

Module	Name	Hours
Module 11	Primary Health Care Health promotion and education – Status of Ayurveda	50
Module 12	Basic Life Support and First Aid	20
Module 13	Health Care Counselling	40
Module 14	Management of Health Facilities	30
Module 15	Management of resources and support systems	30
Module 16	Management of quality of care	25
Module 17	Engage Stakeholders in service delivery	35
Module 18	Technology and innovation	40
Module 19	Disaster management and health	30
Module 20	Family Health	40

Module 11 - Primary Health Care

1. Primary Health Care: Introduction & Overview, Components of Primary Health Care, Universal Health Coverage, Responding to new Health Challenges of changing world, Prevention and Control of NCD, Geriatric Care, Palliative Care,
2. Health promotion and education: - Health Literacy, Health Promoting Schools, Social Mobilization
3. Health Care Financing – Overview, Functions and Objectives, Revenue raising, Pooling Revenues, Purchasing, Benefit package design

4. Economic Evaluation in Health care - Principles and practice of economic evaluation. Types: - Cost Minimization Analysis, Cost-Effectiveness Analysis, Incremental Cost Effectiveness Ratio (ICER), Cost-Utility Analysis, The QALY, Cost-Benefit Analysis

Module 12 - Basic Life Support and First Aid

1. CPR
2. Emergency care –Injuries
3. Trauma, chest pain
4. Acute myocardial infarction
5. Acute abdomen
6. Cerebral vascular accidents.

Module 13 - Health Care Counselling

1. Concept of health care counseling
2. Health care counselling in Primary Care
3. Principles of management of terminally ill patients

Module 14 - Management of Health Facilities

1. Health centres & hospitals
2. Laboratories, Referral system
3. Waste Management

Module 15 - Management of resources and support systems

1. Human resources
2. Financial resources
3. Drugs and supplies
4. Logistics Procurement system

Module 16 - Management of quality of care

1. Quality assurance, Standards, Accreditation
2. User satisfaction, Consumer rights, Relevant Acts, Patient safety

3. Monitoring and evaluation of quality of care

Module 17 - Health System Governance

1. Health System Governance - General concepts, Definitions, Frameworks & Scope
2. Engage Stakeholders in service delivery: Identification of stake holders, Principles of stake holder engagement, Levels of Involvement.
3. Programme evaluation – definition, scope and implementation tactics in Ayurveda. Framework of programme evaluation and its components.
4. Processes of policy development. Policy evaluation.

Module 18 - Technology and innovation:

1. GIS, Digital Technology, Tele Medicine, Mobile Health, Social Media, Remote Care
2. E-governance, M- governance, E-Hospital
3. Information management, Data Safety

Module 19 - Disaster management and health

1. Health system preparedness
2. Health response and relevant activities
3. Pre disaster phase, disaster and post disaster phase
4. Psycho social care

Module 20 - Family Health

1. Concept of family as a system
2. Family safety net
3. AARDRAM project
4. Concept and determinants of family health
5. Health interventions – theoretical concepts

Reference Books

1. Introduction To Public Health Mary Louise Fleming Aug 2019, Elsevier
2. Gordis Epidemiology, David Celentano Feb 2019, Elsevier
3. Evidence-Based Medicine, Sharon Straus Apr 2018, Elsevier
4. [Ewles & Simnett's Promoting Health](#) – A Practical Guide
5. Foundations for Health Promotion, 4th Edition, Jennie Naidoo & Jane Wills, Elsevier
6. Parks Text Book Of Preventive & Social Medicine Hardcover – Jan 2017, 21st edn, by [K. Park](#)
7. Translational Research for primary Health Care; Bell, Erica Dr.; Westert, G. P. (Gert P.); Merrick, Joav 1950- c2012
8. Research for Health Policy, Bell, Erica Dr.2010, Oxford Publication
9. 'Public health management in the health-for-all era', World Health Forum, 11: 269-73. Alderslade, R and Hunter DJ (1994)
10. 'Commissioning and public health', Journal of Management and Medicine, 8 (6): 20-31.
11. The Handbook of Social Studies in Health and Medicine, Sage, London. Lloyd P (1994)
12. 'Management competencies in health for all/new public health settings', The Journal of Health Administration Education, 12: 187-207.
13. World Health Organization (1999) Innovative care for chronic conditions: building blocks for action. WHO Global Report. Geneva: WHO, 2002.

Journals

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN : 0975 9476
2. Biomedical and Biotechnology Research journal ISSN -2588-9834
3. Aryavaidyan, ISSN : 0976-4086

4. International Journal of Ayurveda and Alternative Medicine ISSN : 2395-3985
5. International Journal of Ayurved and Allied Sciences ISSN : 2278-4772
6. AYU – Research Journal *ISSN*: 0974-8520
7. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251

E-Journal

1. International Research Journal of India -ISSN-2454-8707
2. Journal of Complementary and Integrative Medicine – ISSN : 1553-3840
3. Ancient Science of Life – ISSN : 2249-9547
4. Ayurline: International Journal of Research in Indian Medicine-- 2456-4435
5. Advances in Applied Science Research –E-ISSN- 0976-8610
6. Journal of Ayurveda and Holistic Medicine - E - ISSN-2321-1563

Kerala University of Health Science

Model question paper

QP Code

Reg. No.....

First Year M Phil Examinations – Month/Year

(Translational Ayurveda)

Paper I – Research methodology and Medical Statistics

Time: 3 hrs.

Max marks: 100

Answer any 5 questions

(5 X 20 = 100)

All questions carry equal marks

1. What do you mean by Research? Explain the various steps involved in a Research process.
2. Explain Data and its types. Throw light on the main methods of collecting secondary data.
3. What is standard deviation? Evaluate the merits and demerits of standard deviation as a measure of data analysis.
4. What are the various methods of data collection? Discuss in detail along with their advantages and disadvantages?
5. What do you mean by cohort study and control study? Discuss its merits and demerits in clinical trials
6. Explain the ethical issues involved in Research both from a user and researcher perspective.
7. Define 'Research Report'. Explain its types and the essentials of a good research report.

Kerala University of Health Science

Model question paper

QP Code

Reg. No.....

First Year M Phil Examinations – Month/Year

(Translational Ayurveda)

Paper II – Fundamental and Translational Research in Ayurveda

Time: 3 hrs.

Max marks: 100

Answer any 5 questions

(5 X 20 = 100)

All questions carry equal marks

1. Explain the concept of Pratyakshadi Pramana Pariksha, their types and application for Research in Ayurveda
2. Describe the various clinical research methods to explore the safety and efficacy of Ayurvedic products and practices.
3. Explain Literary Research, its importance, methods and uses in Ayurveda.
4. Describe Tool Development – its importance, methods and uses in Ayurveda
5. Throw light on Translational drug research with its definition, scope and components.
6. Explain the Pharmacology and reverse-pharmacology approaches for the evaluation of Ayurvedic drugs.
7. Describe the various clinical research methods to explore the safety and efficacy of Ayurvedic products and practices

Kerala University of Health Science

Model question paper

QP Code

Reg. No.....

First Year M Phil Examinations – Month/Year

(Translational Ayurveda)

Paper III – Public Health Programmes and Evaluation

Time: 3 hrs.

Max marks: 100

Answer any 5 questions

(5 X 20 = 100)

All questions carry equal marks

1. Define health education and discuss its objectives and principles
2. What is basic life support and enumerate the features of life threatening Airway and Breathing problems?
3. What is counselling process? Explain the concept of health care counselling and examine its underlying principles
4. What are the characteristics of hospital waste and how it is treated and disposed of?
5. Explain programme evaluation –its definition, components, scope and implementation tactics in Ayurveda.
6. What are the concepts and determinants of family health? Explain AARDRAM Project
7. Write down the difference between hazard and disaster. Explain with some natural and manmade disaster.

