
Our Chancellor



SPIRITUAL PRINCIPLES IN EDUCATION

“In the gurukuls of ancient rishis, when the master spoke it was love that spoke; and at the receiving end disciple absorbed of nothing but love. Because of their love for their Master, the disciples’ hearts were like a fertile field, ready to receive the knowledge imparted by the Master. Love given and love received. Love made them open to each other. True giving and receiving take place where love is present. Real listening and ‘sradha’ is possible only where there is love, otherwise the listener will be closed. If you are closed you will be easily dominated by anger and resentment, and nothing can enter into you”.

“Satguru Mata Amritanandamayi Devi”

Post Graduate Programme: Master of Public Health (MPH)

Introducing AIMS

India is the second most populous nation on earth. This means that India's health problems are the world's health problems. And by the numbers, these problems are staggering 71million cases of diabetes, nearly half the world's blind population, and 60% of the world's incidences of heart disease. But behind the numbers are human beings, and we believe that every human being has a right to high-quality healthcare.

Since opening its doors in 1998, AIMS, our 1,200-bed tertiary care hospital in Kochi, Kerala, has provided more than 4 billion rupees worth of charitable medical care; more than 3 million patients received completely free treatment. AIMS offers sophisticated and compassionate care in a serene and beautiful atmosphere, and is recognized as one of the premier hospitals in South Asia. Our commitment to serving the poor has attracted a dedicated team of highly qualified medical professionals from around the world.

The Amrita Institute of Medical Sciences is the adjunct to the term "New Universalism" coined by the World Health Organization. This massive healthcare infrastructure with over 3,330,000 sq. ft. of built-up area spread over 125 acres of land, supports a daily patient volume of about 3000 outpatients with 95 percent inpatient occupancy. Annual patient turnover touches an incredible figure of almost 800,000 outpatients and nearly 50,000 inpatients. There are 12 super specialty departments, 45 other departments, 4500 support staff and 670 faculty members.

With extensive facilities comprising 28 modern operating theatres, 223 equipped intensive-care beds, a fully computerized and networked Hospital Information System (HIS), a fully digital radiology department, 17 NABL accredited clinical laboratories and a 24/7 telemedicine service. The NABH accredited AIMS offers a total and comprehensive healthcare solution comparable to the best hospitals in the world. The AIMS team comprises physicians, surgeons and other healthcare professionals of the highest caliber and experience.

AIMS features one of the most advanced hospital computer networks in India. The network supports more than 2000 computers and has computerized nearly every aspect of patient care including all patient information, lab testing and radiological imaging. A PET (Positron Emitting Tomography) CT scanner, the first of its kind in the state of Kerala and which is extremely useful for early detection of cancer, has been installed in AIMS and was inaugurated in July 2009 by Dr. A. P. J. Abdul Kalam, former President of India. The most recent addition is a 3 Tesla Silent MRI, Cyber Knife Robotic Radio Surgery System.

The educational institutions of Amrita Vishwa Vidyapeetham, a University established under section 3 of UGC Act 1956, has at its Health Sciences Campus in Kochi, the Amrita School of Medicine, the Amrita Centre for Nanoscience, the Amrita School of Dentistry, the Amrita College of Nursing, and the Amrita School of Pharmacy, committed to being centers of excellence providing value-based medical education, where the highest human qualities of compassion, dedication, purity and service are instilled in the youth. Amrita School of Ayurveda is located at Amritapuri, in the district of Kollam. Amrita University strives to help all students attain the competence and character to humbly serve humanity in accordance with the highest principles and standards of the healthcare profession.

In December 2013, the Federation of Indian Chambers of Commerce and Industry (FICCI) awarded AIMS with the 'National Healthcare Excellence Award 2013' for the best hospital in the country. The award is in recognition of the hospital's outstanding work toward the "betterment of healthcare" and its efficient and timely service

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Part I

Rules and Regulations

I. Post Graduate Programme: Master of Public Health (MPH)

1. <u>Details of Post Graduate Course: -</u>			
Sl. No.	Course	Duration	Conditions of Eligibility for Admission to the Course
1	Master of public health	Two years	<p>MBBS, BDS, MSc, BSc(Nursing), Masters in Pharmacy, Masters in Social Science, AYUSH, Masters in Physiotherapy, Biomedical engineering, Allied sciences, Veterinary Sciences, Life Sciences, Statistics, Biostatistics, Demography, Population sciences, Nutrition, Sociology, Psychology, Anthropology, Social work & Agriculture.</p> <p>Experience in Health field is desirable and is an added qualification which carries weight age</p>

2. Medium of Instruction:

English shall be the medium of instruction for all subjects of study and for examinations.

3. Eligibility:

a) Indian Students

Candidates for admission to the **MASTER OF PUBLIC HEALTH COURSE under Institute of Public Health (Dept. of Community Medicine, Amrita School of Medicine)** should have passed any of the above-mentioned courses from a recognized University. Experience in the health field is desirable and is an added qualification and carries weightage.

b) The International Students

International students will be considered for admission. The international students should have reasonable score for TOEFL and IELTS along with Equivalence certificate issued by authorized body. Admission would be governed by Amrita University norms for international admissions.

c) Sponsored Students (Government of Kerala, Govt. of India & Non – Government Organizations)

One seat each will be earmarked for all the above categories.

d) Age:

The age limit is 40 years and for government sponsored candidates it will be as per government norms.

e) Selection Procedure

Total intake of maximum 25 students per year.

i). Indian candidates

Prospective candidates will be evaluated on the basis of educational qualifications, professional experience relevant to the field of public health, written test and interview. The cut off for selection will be a minimum of 50% marks in the written test.

ii) International Candidates

Selection will be based on educational qualifications, professional experience, assessments made by the sponsoring organizations and an interview. International candidates have to provide certification for proficiency in English. They should also have the certificate of equivalence from national board. The international students should have reasonable score for TOEFL and IELTS. Admission will be governed by Amrita University norms for international admissions.

4. Fee Structure

Tuition fee per year: for Indian students (Resident Indian citizens) INR1,20,000/ + other fees as prescribed by the University. (Refer website for details)

Overseas students: \$3500 per year.

This does not include the cost of books, stationery, certificates, food, field trips, dissertation, convocation etc.

The students are required to make their own arrangements for accommodation and transport. If hostel rooms are available, they will be provided and the charges will be as per norms

For detailed outline of the curriculum please visit www.amrita.edu.org

II. General Rules:

Admissions to the courses will be governed by the conditions laid down by the University from time to time and as published in the Regulations for admissions each year.

1. Duration of the Course

Duration of the course is two years and in four semesters. The course commences in August every year.

2. Discontinuation of Studies

Rules for discontinuation of studies during the course period will be those decided by the Medical Director /Admissions, Institute of Public Health (**Dept. of Community Medicine, Amrita School of Medicine**), and Published in the “Terms and Conditions” of

the Institute every year. Medical leave may be granted till one year and other leaves up to a maximum of 6 months based on the discretion of the Principal and Head of the Department. In both these circumstances, extension of the course and fees should be paid for the extended period either half yearly or yearly as the case may be as per the Institutional policy.

3. Educational Methodology

Learning occurs by attending didactic lectures, as part of regular work, from co-workers and senior faculty, through training offered in the workplace, through reading or other forms of self-study, online resources and international websites, seminars, webinars, group discussions, journal clubs, paper presentation, community projects etc. AUMS will be the platform for teaching methodology, assessment of students for assignment and class attendance.

4. Annual Scheme

Sl. No	Item	No.'s/ Description
1.	Total core credits	80
2.	Credit distribution	<ul style="list-style-type: none"> • 20 credits/ semester (total 4 semesters) • 6 Core suites = 60 credits, • Internship (Internal) consisting of 1 Community Project = 2.5credits • Internship (External) =2.5 credits • Dissertation = 15 credits
3.	Duration	2 years in 4 semesters & 80 credits
4.	Minimum duration of credit in hours	1 credit = 15 Hours
5.	Internship	Internship will be for 2 months. One month of internship will be carried out in the Amrita Health Centers during the II semester. At the beginning of the IV semester, students will undergo one month of internship under various organizations of Amrita Vishwa Vidyapeetham/ External Agencies
6.	Practicum	A community project has to be completed by the students during the first year; with a group comprising of no more than 6 students
7.	Dissertation	III rd semester

8.	Examinations	Two annual university examination covering four core suites in the first year and two core suites in the second year. Internal assessment for each core suite.
9.	No of Faculty Full time	3-4
10.	No of visiting faculty/ consultant	1
11.	No of administrative staff	5
12.	No of support staff	2
13.	Infrastructure	2 Class Room, 2 - Practical Room, 1 - Library ,1- Computer Room 1-Admin Suit, 4 - Faculty Rooms, 1 - Refreshment Room, 1- Seminar Room, 1 - Conference Room, 2 - Visiting Faculty Room, Toilets, Wash Area, Store Room, and a Reception Area, Visitor's Lounge
14.	No of students	20

5. **Academic Calendar:** -

1.	Last date of application	
2.	Interview & Admission process	
3.	Publication of rank list	
4.	1 st Semester Begins	
5.	1 st Semester Ends	
6.	2 nd Semester begins	
7.	Internship Program* I (Community Project)	
8.	2 nd Semester ends	
9.	First annual University Examination	
10.	3 rd Semester Begins	
11.	Protocol submission for Dissertation	
12.	3 rd Semester Ends	
13.	4 th Semester Begins	

14.	Dissertation submission	
15.	Internship Program* II	
16.	4 th Semester Ends	
17.	Second annual university examination	
18.	Result Publication	

Students will be informed of changes in the schedule, such as additions, cancellations, rescheduling of classes as they occur, either in class or through email.

Some courses demand extensive reading and most of the course materials/readings may be provided in the electronic format to avoid wastage of resources. Print copies will be provided only for certain relevant readings. It is the students' responsibility to make sure that she/he is aware of the class schedules, assignments and has the required readings and other course materials. Distribution of the power point slides (soft or hard copy) is left to the discretion of the concerned faculty.

* Internship Program- Internship will be for 2 months. One month of internship will be carried out in the Amrita Health Centers during the II semester. In the IV semester, students will undergo one month of internship under various organizations of Amrita Vishwa Vidyapeetham/ other External Agencies. This is to provide them with hands on field experience.

5. Credit system

- Each credit is equivalent to fifteen hours of in-class sessions.
- Faculty led workshop sessions is equated to class room sessions.
- Faculty led field sessions extending to one full day is equivalent to three in-class sessions.
- Faculty led field sessions of half a day is equivalent to one in-class session.
- Field sessions not led by faculty extending to one full day is equivalent to two in-class sessions.
- Assignments, term papers, readings, report writing and other tasks will be given as homework, which would be in addition to the credit requirements not exceeding 25 hours of work per credit.
- There will be a total of 80 credits. The distribution of credits will be as follows:
 - a. 6 Core suites = 60 credits,
 - b. Internship (II Semester) = 2.5 credits
 - c. Internship (IV Semester) = 2.5 credits
 - d. Dissertation = 15 credits

III. Examination Regulations:

1. Attendance:

80% of attendance (physical presence) is mandatory per year. Medical leave or other types of sanctioned leaves will not be counted as physical presence. For those who possess a minimum of 75% attendance, deficiency up to 5% may be condoned on medical or other genuine grounds by the Principal, School of Medicine at his/her sole discretion and as per the recommendation of the Faculty concerned. Students are allowed such condonation only once for entire course of study.

Condonation fee as decided by the University has to be paid. Attendance will be counted from the date of commencement to the last day of the respective semester. Absence without prior permission will be viewed seriously.

2. Assessment

a) Internal Assessment:

- Internal assessment will be conducted for all core suites in the form of written assignment/ written test/ viva.
- Failure to attend an assessment will not be compensated for by substitution/replacement or in any other way and the mark for that assessment will be zero.
- Assignments that are submitted according to the instructions of the concerned faculty alone will be accepted for grading.
- Any work submitted after the deadline will not be considered for evaluation.
- Students found plagiarizing in assignments will be given zero marks.
- Students failing to secure the minimum requirement of 50% for the internal assessment in each course suite will be given a remedial examination to gain eligibility for the University Examination.

b) University Examination:

University Examination shall be conducted annually at the end of second and fourth semesters. Those students, who did not clear the university examination, need to re-appear for the examination within 6 months. Maximum number of attempts permitted for each university exam is four (4) including the first attempt. Students need to clear the first-year university examination before attending the second university examination. However, they can continue with their second-year classes.

A candidate who satisfies the requirement of attendance & internal assessment as stipulated by the University shall be eligible to appear for the University Examination.

Students who have not completed their dissertation successfully will not be permitted to appear for the second year University examination. Successful completion of the dissertation implies a minimum score of 50% on external review.

One academic year will be twelve months including the days of the Examination. Year will be counted from the date of commencement of classes.

The final examination will have theory and dissertation viva. For the final examinations one external will be invited for evaluation of the theory paper and dissertation viva along with an internal examiner.

The minimum pass for internal assessment is 50% and for the University Examination is 50% for theory and 50% for dissertation viva separately

If a candidate fails in a particular theory examination of a core suite, he/she must rewrite the theory of that particular core suite.

The maximum period to complete the course shall not exceed 5 years.

3. Performance Assessment

Student's performance will be recorded as percentage and will be categorized into **Distinction -75%, First class -65% and Second class – 50%.**

A minimum of 50% for theory and dissertation viva separately is required for pass.

4. Eligibility to appear university Examination:

A student who has secured at least 50% pass for Internal Assessment is qualified to appear for University Examination provided he/she satisfies percentage of attendance requirement as already mentioned at the III (1) of the clause.

5. Valuation/ Revaluation Papers:

Valuation work will be undertaken by the examiners in the premises of the Examination Control Division in the Health Sciences Campus.

There will be **Re-Valuation** for all the theory papers of the University examinations. Fees for revaluation will be decided by the university from time to time.

Application for revaluation should be submitted within 5 days from date of declaration of result and it should be submitted to the office with payment of fees as decided by the university.

6. Supplementary Examinations:

Every main University examination will be followed by a supplementary examination which will normally be held within six months from the date of completion of the main examination and fees will be collected as per the University regulations.

Same attendance and internal marks of the main examination will be considered for the supplementary examination, unless the HOD furnishes fresh internal marks and attendance after conducting fresh examination.

Students of supplementary batches are expected to prepare themselves for the University Examinations. No extra coaching is expected to be provided by the Institution. In case at any time the Institution has to provide extra coaching, students will be required to pay fees as fixed by the University for the said coaching.

A candidate must have passed in all core suites to become eligible to get the MPH degree.

IV. Criteria for Pass in University Examination - Regulations

1. Eligibility criteria for pass in University Examination:

First Year: Minimum marks for passing are 50% for theory and 50% dissertation viva separately

Second Year: Minimum marks for passing are 50% for theory and 50% dissertation viva separately

2. Evaluation and Grade:

A candidate who takes more than one attempt in any subject and pass subsequently shall be ranked as pass.

A candidate who takes more than one attempt in any subject and pass subsequently shall be ranked as pass.

Letter Grading System:

<i>Letter grade</i>	<i>Grade points</i>	<i>Ratings</i>	<i>Mark Percentage</i>
<i>O</i>	<i>10</i>	<i>Outstanding</i>	<i>>95%</i>
<i>A+</i>	<i>9.5</i>	<i>Excellent</i>	<i>90%</i>
<i>A</i>	<i>9</i>	<i>Very Good</i>	<i>>85%</i>
<i>B+</i>	<i>8</i>	<i>Good</i>	<i>80%</i>
<i>B</i>	<i>7</i>	<i>Above average</i>	<i>70%</i>
<i>C</i>	<i>6</i>	<i>Average</i>	<i>60%</i>
<i>P</i>	<i>5</i>	<i>Pass</i>	<i>50%</i>
<i>F</i>	<i>0</i>	<i>Fail</i>	<i>Less than 50%</i>
<i>W</i>	<i>0</i>	<i>Withheld</i>	

V. General considerations and teaching / learning approach:

There must be enough materials to be provided for self-learning. The methods and techniques that would ensure this must become a part of teaching learning process.

Proper records of the work should be maintained which will form the basis for the student's assessment and should be available to any agency that is required to do statutory inspection of the school or of the course.

a) Student

1) Award of degree:

The degree will be awarded to students who have successfully completed all requirements of their programme.

2) Facilities:

Students are provided with computer laboratory, wireless internet connectivity, audio-visual equipments and a reference library with a large collection of books and journals in order to facilitate a better and an effective learning process. Printers are available in the computer lab and Photostat facility is available in the library. Since it is important to maintain the facilities and resources to the best of standards for the benefit of everyone, students are expected to follow certain norms of social and professional behaviour within the campus including the classrooms, corridors, canteen, seminar halls, and auditoriums

3) Class Rooms

- Students are expected to be present in class on time and stay for the entire class period since random arrivals and exits in classrooms are distracting for the faculty and other students.
- Use of mobile phones is strictly prohibited inside the classrooms, seminar halls and in meeting rooms. All mobile phones must be switched off before entering the class/library/ auditorium or any other designated area
 - Laptops should be used with discretion during class sessions. Doing assignments/ personal work, web browsing and emailing during lecture sessions are forbidden. During sessions/ presentations laptops are to be switched off and students are expected to pay attention to the presenters. Individual faculty has the discretion not to allow or have periods during class where laptop may not be used.
 - Smoking, consumption of alcohol, food and beverages is forbidden in the classrooms.
 - All computers and audio-visual equipments, fans and lights in the classrooms must be switched off after use.
 - Students are not allowed to use the computer and audio-visual equipments in the classroom for web browsing and other personal work. They should be restricted for use for teaching in class and workshop sessions
 - Students must do their best to preserve order in class as well as behave in a manner that does not disrupt classroom learning or smooth conduct of the class
 - Students are expected to raise their hands and wait to be called upon to speak during a class session. If the class is involved in an informal discussion, take turns with others when speaking
 - Private conversations during class sessions and discussions will distract the students and teachers and hence must be avoided.
 - Students can be asked to leave the class/session if found disruptive in class even after repeated warnings and their attendance cancelled
 - Students are expected to complete their assignments/ readings work prior to start of the

class sessions

- Students are expected to abide by the norms of decency and academic civility during class discussions/ debates/ seminars etc. They are expected to learn to respectfully agree or disagree on opposing points of view. Avoid arguments that are not healthy and can be interpreted as personal, rude, intolerant, intimidating, sexist

4) Log Book Maintenance:

Each student should maintain a logbook and record the procedures they do and the work patterns they are undergoing. A daily work record should be maintained.

Part –II

Syllabus

1. **INTRODUCTION**

Master of Public Health Program at Amrita Institute of Medical Sciences and Research Centre, Cochin, Kerala, India is designed to meet the healthcare needs of people. This is an innovative course of Amrita Vishwa Vidyapeetham and we are committed to make this course of global standard. It is a 24-month full time course and has been designed to build an understanding, knowledge, skills and attitude for better public health practice and research. The standards and syllabus are at par with the renewed international and national universities.

All students receive a comprehensive training and skill building in the six core suites-

- 1). Epidemiology
- 2). Biostatistics
- 3). Gender, Nutrition & Population Sciences
- 4). Environmental Health & Occupational health
- 5). Social and Behavioral science
- 6). Health care and system management, Ethics in Public Health Research, and Health Economics & Policy

In addition to the above-mentioned core suite, the students will have to do an additional elective. Different options for electives will be provided during the two-year course. It will be available in the pattern of workshops, CMEs on topics of public health importance such as health economics, epidemiology etc. The candidate can select any one topic of interest.

In all classes which are mandatory, the emphasis is on the relevance of information and skills to public health practice.

II. **Aims and Objectives of the Course:**

Mission

The Master of Public Health (M.P.H.) program mission is the education and training of students within a course of study that promotes an understanding of the theoretical, scientific, and practical aspects of public health.

The objectives of the Master of Public Health programme are:

1. To equip students to have an overall perspective on public health
2. To create good programme managers in public health
3. To inculcate interdisciplinary approach to problem solving skills in public health
4. To encourage interdisciplinary research in public health
5. To improve leadership skills in public health. To prepare students to tackle current and emerging global public health problems such as pandemic flu, AIDS, bioterrorism, obesity, diabetes, disparities in access to healthcare, and many other critical public health problems.
6. Recognizes that in today's world, a thorough and rigorous public health education must embrace multiple areas including: biostatistics, environmental health, epidemiology, health

services administration, social and behavioral sciences, biological sciences, ethics, the role of information technology in health, health policy and law in health.

7. The program requires a field experience that serves as a capstone experience and helps students integrate knowledge across courses.

III. Career Opportunities for MPH Graduates:

Graduates of this program typically enter services as public health administrators, advisors, researchers, practitioners, educators, and consultants in a wide variety of public health and N.G.O. and international agencies. Many serve as health educators or health promotion specialists in business, industry, higher education, voluntary agencies, government, and private health care settings.

IV. Program Highlights

1. Competency based
2. Specially designed to develop leadership, communication and problem-solving skills
3. Additional certifications as per the students' choices
4. Positioned for true integration of public health science and practice
5. Includes 1 Community Project and a Dissertation to give real experience before graduation
6. Individualized Goals Analysis of each student
7. Internship program provides an opportunity for students to have a hands-on field experience

A) Competencies

All MPH students should graduate having achieved competencies in the following areas:

a) Epidemiology Competencies

Identify, access, and display in tables or graphs data relevant to disciplines of public health. Evaluate the quality and comparability of data and utilize appropriate methodology for combining relevant data from different sources.

Understand basic demographic techniques used in measuring the health of populations.

Understand the major study designs for obtaining quantitative information relevant to public health questions from surveillance data, other observational studies, community-based research, or controlled trials.

Design a surveillance system for a disease or condition of public health importance.

Understand commonly used public health measures, such as relative risk, attributable risk and relative hazards, and select appropriate statistical methods for estimating such measures in the presence of covariates.

b) Biostatistics Competencies

Interpret descriptive and inferential statistics resulting from data analysis and draw relevant conclusions.

Critique the study design and quantitative methods used in published literature and appropriately interpret the findings.

Attain a minimal level of competence in the effective access of frequently used literature databases, government data bases and appropriate software packages.

Apply ethical principles to the collection and use of data emanating from public health, epidemiologic and community intervention research.

c) Gender, Nutrition and Population Sciences Competencies

Describe the biological bases, e.g., molecular, cellular, and physiological, for the major determinants of human disease including infectious disease, nutritional deficiencies, and exposure to toxic environmental agents.

Describe the ecological principles that determine the distribution of infectious disease in human populations.

Apply principles of human immune system function to explain the rationale and mode of action of existing and potential methods of immunization.

Explain the role of genetic determinants in human disease and disease susceptibility caused by infectious agents, nutritional deficiencies and exposure to toxic agents, and in microbial virulence.

Apply biological principles to development of disease prevention, control, or management programs.

Apply biological principles to assessment of risk from potentially hazardous agents and behaviors.

d) Environmental Health and Occupational Health Sciences Competencies

Define the major environmental agents and occupational (i.e., environmental chemical, biological, and physical agents that cause adverse effects on human health) and their sources, natural and anthropomorphic.

Discuss the transport and fate of these agents in the environment, and identify the carriers or vectors (air, water, soil, and food) that promote the transfer of these agents from the environment to the human.

Describe the toxicokinetics of these agents in the body, including the effect of route of entry (inhalation, ingestion, absorption).

Describe the toxicodynamics of these agents, including biotransformation and the mechanisms by which they exert adverse health effects, and the use of models for prediction of the magnitude of adverse effects.

Identify and define the steps in the risk assessment process, including both exposure and dose-response assessment, and the sources and magnitude of uncertainty.

Describe various risk management approaches, including regulatory, engineering, and behavioral/risk communication options.

Describe specific genetic factors (including gender- and ethnicity-related factors), physiologic factors (including age- and health status-related factors), and psychosocial factors (including SES- and social/cultural-related factors) that influence the risk of exposure

and/or the likelihood of developing adverse health outcomes from exposure to environmental agents.

Identify techniques for improving risk assessment and risk management strategies, including consideration of:

- (1). Factors in the physical environment
- (2). Factors in the social environment
- (3). Community-based participation in both the assessment/management process and in basic environmental/public health research
- (4). Issues of environmental justice/equity

e) Social & Behavioral Sciences Competencies

Describe the psychological and sociological conceptualizations of health, health behavior, and illness.

Describe and compare theories and principles of behavior change. Analyze their applicability to diverse populations and different types of health behavior problems, including interactions among biology, behavior, and environment.

Describe the concepts of stress, coping and social support, their inter-relationships and assess their impact on health, health behavior, and illness.

Analyze and predict the influence of major social structural divisions such as age, gender, socioeconomic status, and ethnicity on health, health behavior, and the treatment of illness.

Formulate behavioral, communication, educational, advocacy, health promotion, and community-based participatory strategies for improving the health of communities and individuals and preventing disease and injury.

Evaluate processes and outcomes of social and behavioral interventions on the health of communities, families, and individuals.

Demonstrate a cross-cultural awareness and sensitivity for the implementation and evaluation of health behavior change programs.

f). Health care & Health System Management, Ethics in Public Health and Research, and Health Economics & Policy Competencies

Describe the organization and structure of a health service system.

Evaluate basic models of health delivery systems.

Assess major approaches to managing and improving health services organizations, including approaches to process improvement, strategic planning, and organizational design.

Apply performance improvement concepts and tools in revising a specific process within an organizational setting.

Apply key concepts of human resource management to achieving the strategic objectives of health service organizations.

Prepare a basic budget and principles of health economics

Health Policy & Ethics Competencies

The MPH Program also considers it important that public health professionals obtain an understanding of the role of governments and policy in public health. It is expected that MPH students obtain competencies in this area that include:

- Analyze and critique the government’s role in health policy and how political processes have shaped that role.
- Recognize the institutional and political actors central to the formation and implementation of health policy.
- Analyze and evaluate the process of public policy-making and how it affects the design, implementation, and performance of health policies.
- Collect, analyze, and synthesize information about health policy problems and issues.
- Identify the practical and political constraints of policy formulation and implementation.
- Understand the ethical considerations associated with health policy formulation and implementation

B) Applied Learning Experience (ALE)

i). Integration of science and practice

The MPH scholars will be provided with opportunities to participate in the planning, development and implementation of various health programmes including the observation of World Health Day, World Tuberculosis Day and other concurrent projects in the department.

Case studies drawn from recent history and current events are discussed as part of the program (e.g., Street Dog Menace of Kerala, ‘Endosulphan disaster of Kasaragod’). This learning approach, called the “case method,” will provide opportunities for the students to apply facts and information to solve complex public health problems. The students will analyze the cases in small teams that may include students from other academic departments, guided by a faculty member. Through this process they will gain skills such as negotiation, persuasion, public speaking, and critical judgment which are crucial to professional success.

The students will be asked to write a policy brief, identify what evidence is missing or necessary to make a decision, plan a media briefing, find citations in the scientific literature relevant to a case study, or identify the key aspects of an effective health intervention program. The nature of the teamwork involved will hone their problem-solving skills and their ability to apply public health theory to professional practice.

ii). Leadership & Innovation

Public health is a field of collaboration and teamwork. And yet, formal coursework in teamwork and leadership skills have not traditionally been a required part of public health education. The Amrita MPH views leadership skills as an essential competency, and our curriculum incorporates a unique program in leadership and innovation.

The course aims to develop and improve MPH students’ abilities in three key areas: leading teams in a variety of settings, working effectively as a team member, and implementing fresh, innovative ideas within an organization or larger community.

Leadership & Innovation is taught in an experiential and participatory manner. Working in small teams, the students will engage in role play, simulations, group work, and case analysis, sometimes using video and online tools. They will receive systematic feedback from faculty and fellow students as it happens in real life in workplaces.

The program covers such valuable topics as how to manage a team, negotiation, effective communication, and conflict resolution. The coursework, hands-on workshops, and lectures by invited public health leaders will foster the student's ability to collaborate with diverse professionals in a wide range of settings – hospitals, research centers, public health organizations, NGOs, or wherever their career leads them.

C). Certifications

The AMRITA MPH includes a Certificate program that provides training in a second, more focused area of expertise besides the main discipline. The School will offer many different options for Certificate programs. These programs have been developed in consultation with public health professionals and other key stakeholders and therefore reflect today's most sought-after skills and knowledge.

Proposed Certificate Programs

1. Applied Biostatistics & Epidemiology
2. Adolescent Health
3. Comparative Effectiveness Outcomes Research
4. Environmental Health Policy
5. Health of an Aging Society
6. Health Policy and Practice
7. Health Promotion Research and Practice
8. Infectious Disease Epidemiology
9. Injury Prevention and Control
10. Public Health and Humanitarian Assistance
11. Project management in health care
12. Public Health project management
13. Research Methodology
14. Systematic Review and Meta Analysis
15. Research Writing
16. Ethics in Medicine and Research
17. Health Economics

iii). Dissertation

The MPH Dissertation is a requirement for graduation for students in the Master of Public Health (MPH) program at the Amrita institute. The MPH Dissertation is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience. Before the capstone the students will receive education on project management to prepare them for undertaking the project on hand.

Completion of the MPH Dissertation requires both written and oral components. The capstone is typically completed in the fourth semester of the program. The project is done under the direction of the guide who will coordinate with the student for selection of appropriate project.

In order to satisfy the written component, a student must write a paper. Students are also required to give an oral presentation summarizing their project in a dissertation symposium to be held on a previously announced date.

Summary of steps to complete and document the Dissertation requirement

Step 1: Select a topic in consultation with the guide

Step 2: Determine with the guide whether the project involves human subjects research (HSR) and do necessary paper work as necessary.

Step 3: Submit the protocol to the Dissertation Review Committee (DRC) and Institutional Ethical Committee (IEC).

Step 4: Complete major work and submit first draft faculty councilor

Step 5: Submit final draft of paper to the capstone advisor for approval

Step 6: Submit final approved report

Step 7: Give an oral presentation of the project

Step 8: Get the Capstone course completion and scores

iv). Internship and Community Project

Internship will be for 2 months. One month of internship will be carried out in the Amrita Health Centers during the II semester. During this period, the students are expected to complete one mini project. At the beginning of the IV semester, students will undergo one month of internship under various organizations of Amrita Vishwa Vidyapeetham/ other External Agencies.

The intent of the Community project is to engage the students in activities aligned with their career goals, as well as activities that demonstrate application of public health concepts and critical thinking relevant to the student's area of interest. Students will seek out activities that further develop their skill set and add new tools to their professional toolkit. Upon completion of the MPH program, students will be able to provide evidence of application of these skills to potential employers.

- Applies public health skills and competencies. Students identify the public health skills and competencies relevant to their area of interest that are most beneficial to their career advancement. Students apply these skills and competencies in concert with knowledge gained from their coursework.
- Is framed and carried out within a public health practice context with an established organization or agency. The practicum is a population-level focused project conducted in a practice context.
- Is supervised by a qualified preceptor. The practicum preceptor must be qualified to evaluate the student's professional competence and supervise the student throughout the project. The preceptor is directly engaged in the population-level focused practicum activities. Preceptors can be from an organization outside of Amrita.

- Is an evaluated experience. Students are evaluated on the achievement of defined learning objectives and deliverables (if applicable) by the preceptors
- The following are generalized examples of potential practicum activities:
 - ✓ Analyze, interpret, and summarize de-identified survey data or public records data
 - ✓ Analyze barriers to implementing a program and present recommendations
 - ✓ Assess lab-based surveillance data
 - ✓ Conduct cost-effectiveness, cost-benefit, and cost utility analyses
 - ✓ Conduct needs assessments
 - ✓ Contribute to the measuring, reporting and continuous improvement of organizational performance
 - ✓ Create an advocacy or advertisement campaign
 - ✓ Design programs/curriculum on health topics
 - ✓ Determine the feasibility and expected outcomes of policy options
 - ✓ Develop and coordinate programs and activities
 - ✓ Develop and implement quality improvement projects
 - ✓ Evaluate the effectiveness of existing programs
 - ✓ Gather information relevant to specific public health policy issues and develop policy recommendations
 - ✓ Provide support and assistance in funding research and grant writing
 - ✓ Identify strategies for determining budget priorities based on federal, state, and local financial contributions
 - ✓ Investigate new partnerships that could also act as client resources
 - ✓ Organize, analyze, and summarize study data for a report
 - ✓ Promote public health policies, programs, and resources

D). Goal Analysis

In order to full fill the requirements of the Goals Analysis project, students are asked to complete the following steps in close collaboration with their advisor.

Step 1 - Briefly explain what knowledge, skills, and experiences you bring to the program.

Step 2 - Identify your goals for your education by explaining what you hope to gain in terms of knowledge, skills, personal and professional contacts, and other experiences while a student in the MPH program. Review the list of MPH core competencies with your advisor. You are encouraged to identify additional competencies particularly relevant to your professional future. Describe any ideas that you may have at this point for potential capstone and practicum projects.

Step 3 - Develop a tentative course plan for your entire MPH program. Identify what courses and special studies you intend to take and when you plan to complete your courses. Course descriptions in the current year's catalogue indicate when courses are generally offered. Your curriculum plan should include all 90 credits of courses work, and should be viable in terms of schedule and course load. You may use the excel templates provided by the MPH office to record your plan, or use some other format that you are comfortable with.

Step 4 - Carefully review your goals statement and curriculum plan with your advisor to ensure the proposed curriculum is not only feasible, but that it meets program requirements. Assess if your curriculum plan is aligned with the goals you identified in Step 2.

Step 5 - Submit the electronic Goals Analysis form, make sure that your advisor has approved your project. When you submit the electronic form, your advisor and your academic coordinator will automatically receive it.

V. Justification for the course:

AIMS is a specialized center offering tertiary level super specialty services. It has its own research wing and community projects. The Amrita SerRve is the example of the mega community project implemented by AMMA. The public health course will work complementary to this concept.

With the infrastructure of the hospital, a very prospective program is credited in AIMS that would enable the students to strive for professional competence, productivity and services to society. This educational experience will consist of guided professional settings, organized self-directed study, active participation in classroom and clinical laboratory experiments.

Students will be exposed to professional settings in the hospital, intensive lectures, rotation through various departments, develop a unique and moral value system that would make them competent as public health administrators.

VI. Learning Objectives

The learning objectives for the MPH Program that follow were developed by the program's Academic Affairs/Admissions Committee. Students in the MPH Program are expected to:

Demonstrate a thorough understanding of the areas of knowledge and skills basic to public health practice, with additional depth in at least one substantive area. The substantive area may be in one of the concentrations approved by the faculty (currently environmental health, health communication, nutrition, health services, and epidemiology & biostatistics), or an in academic discipline approved by the faculty for a combined or joint degree program with the MPH (currently law, medicine or veterinary medicine).

Demonstrate, through an applied learning experience, the ability to integrate knowledge and skills from key public health disciplines toward the development, implementation, and evaluation of population-based strategies to enhance health in human populations.

Define and describe population-based methods by which public health practitioners strive to enhance the health of the public, namely through organized community effort; program administration; research; and policy development, implementation and evaluation.

VII. Experience with the course in other institutions

This is a new venture by our university. There is only one centre in Kerala which is recognized by MCI, Achutha Menon Centre for Health Sciences, Trivandrum is having MPH course now. We are collaborating with them. We are collaborating with Public Health Foundation of India. Our future plan is to have collaboration with internationally and nationally renowned universities.

COURSE STRUCTURE

1) Core Curriculum

All students must do a total of 6 core courses called suites with 30 modules for graduation. The Amrita MPH gives prime importance to develop the ability of the students to integrate science of public health and public health practice. This is achieved through group dynamics and real-life case studies. Leadership skills and innovative thinking is developed through group work and seminars. These activities are carried out during the first, second and third semesters of the MPH program. In addition, a lecture series will be offered covering different aspects of public health.

By the end of their studies, all students complete the core curriculum of 30 modules, elective module, additional lectures, Internships with practicum and a dissertation.

All students will also work with an academic advisor throughout their time here. The academic program will be focused on core competencies listed. The assessment will be primarily based on the core competencies and academic counselors will certify that each student has the required set of competencies.

2). Core suites -Core of MPH-

The core curriculum, taken by all incoming students in 4 semesters, consists of six broad areas of study and one dissertation, known as “**suites**”. These suites which are broken down into 30 modules, build one upon the next to provide the broad, interlocking foundation of knowledge needed for a career.

The 6 core suites consist of 5 modules each. The course is divided into 4 semesters as shown in the matrix. In the I and II semesters, core suites 1 to 4 will be covered and in the III and IV semesters core suites 5 and 6 will be covered. The dissertation will be done during the Semester III and IV.

In addition to the above-mentioned core suites, the students will have to do an additional elective. Different options for electives will be provided during the two-year course. It will be available in the pattern of workshops, CMEs on topics of public health importance such as health economics, epidemiology etc. The candidate can select any one topic of interest and complete it within the two years of the course.

Semester	Core suites	Modules	Credits
Semester I	I-Epidemiology	<ol style="list-style-type: none"> 1. Principles of epidemiology 2. Quantitative epidemiology 3. Special studies and research epidemiology 4.A. Qualitative epidemiological studies, mixed methods & scale development 4.B. Evidence synthesis & Critical Analysis of Published literature 5. Epidemiology of communicable diseases 	10
	II-Biostatistics	<ol style="list-style-type: none"> 1. Fundamental Mathematics for Biostatistics 2. Statistical methods 3. Research methodology 4. Advanced methods in Bio-statistics 5. Statistical Methods and SPSS Application 	10
Semester II	III-Gender, Nutrition and Population Sciences	<ol style="list-style-type: none"> 1. Non-Communicable Disease 2. Women empowerment and gender related issues 3. Major Global Infections & Infectious Diseases 4. Principles of Human Nutrition, nutrition policy, and public health nutrition 5. Demography & Population Science 	10
	IV-Environmental & occupational health	<ol style="list-style-type: none"> 1. Environmental health & human ecology 2. Pollution & Waste management 3. Environmental safety 4. Medical entomology 5. Principles and Relevance of Industrial and Occupational Health 	7.5
		INTERNSHIP	2.5
Semester III	V-Social and Behavioral Sciences Part 1	<ol style="list-style-type: none"> 1. Medical anthropological perspective in health 2. Social and Behavioral Foundations of Primary Health Care 3. Introduction to Persuasive Communication: Theories & Practice 	5
		DISSERTATION	15

Semester IV	V-Social and Behavioral Sciences Part 2	<ol style="list-style-type: none"> 1. Health Behavioral Change at the Individual, Household, and Community 2. Social & Behavioral Aspects of Public Health 3. A New View: Improving Public Health through Innovative Social and Behavioral Tools and Approaches 	7.5
	VI-Health care, health system management, Ethics in Public Health & Research and Health Economics & Policy	<ol style="list-style-type: none"> 1. Public Health Practice & Decision Making 2. Public health ethics, Health systems & policy 3. Health economics & Health Project management 4. Strategic management in Public Health & Human Resource Development Quality Assurance and Total Quality Management	10
		INTERNSHIP	2.5

Elective module / Additional Lectures

In addition to the above-mentioned core suite, the students will have to do an additional elective. Different options for electives will be provided during the two-year course. It will be available in the pattern of workshops, CMEs on topics of public health importance such as health economics, epidemiology etc. The candidate can select any one topic of interest. Some examples are as follows:

1. Statistical Reasoning in Public Health I-II
2. Statistical Methods in Public Health I-III
3. Epidemiologic Inference I
4. Occupational Safety and Health Management
5. Applications in Managing Health Organizations in Low- and Middle-Income Countries
6. Quality Assurance Management Methods for Developing Countries
7. Public Health Practice
8. Fundamentals of Management for Health Care Organizations Managing Health Service Organizations
9. Strategic Leadership Principles and Tools for Health System Transformation in Developing Countries
10. Community processes Managing Health Service Organizations
11. Fundamentals of Budgeting and Financial Management
12. Pharmaceuticals Management for Under-Served Populations
13. Managing NGOs in the Health Sector
14. Problem Solving in Public Health
15. The Tools of Public Health Practice & Decision-Making
16. Molecular Biology of Pandemic Influenza
17. Molecular Endocrinology
18. Stem Cells & the Biology of Aging & Disease
19. Public Health Toxicology
20. Biological Basis of Vaccine Development
21. Immunology, Infection, & Disease
22. Biology of Parasitism
23. Vector Biology & Vector-borne Diseases
24. Principles of Public Health Ecology
25. Malariology
26. Epidemiologic Basis for Tuberculosis Control
27. Epidemiology & Public Health Impact of HIV & AIDS
28. Epidemiology & Natural History of Human Viral Infections
29. Advanced Topics on Control & Prevention of HIV/AIDS
30. STI's in Public Health Practice
31. Life Course Perspectives on Health
32. Fundamentals of Health, Behavior & Society
33. Psychosocial Factors in Health and Illness
34. Social & Behavioral Aspects of Public Health
35. Program Planning for Health Behavior Change
36. Health Literacy: Challenges and Strategies for Effective Communication
37. Human Development across the Lifespan

38. National Health Mission
39. Govt. Schemes
40. District health administration
41. Quality assurance programmes
42. Hospital infection control practices
43. Public health Dentistry
44. Supply chain management in health
45. Industrial Psychology
46. Legislations related to occupational health and safety.
47. Management Information and Evaluation System
48. NGO Management+ Marketing
49. International health
50. Gender issues

3. Sessions Semester wise

The total class hours in a day will be eight hours, including lunch break out of which three hours will be didactic lectures in the morning and four hours in the afternoon will be various assignments like presentations, seminars, journal clubs, group discussions, article review, reading assignments, field work and online resource search etc. by students under the leadership of faculty.

4. Scheme of Examination

No.	Name of the Paper	Time hrs	Internal Assessment	University Examination	Project	Total
				Theory		
First Year						
MPHI	Epidemiology	3	50	100		150
MPH II	Biostatistics	3	50	100		150
MPH III	Gender, Nutrition & Population Sciences	3	25 + Community Project 25	100		150
MPH IV	Environmental & occupational health	3	50	100		150
	Total					600
Second Year						
MPH VII	Social and Behavioral Sciences	3	50	100		150
MPH VIII	Health care, health system management, Ethics in Public Health & Research and Health Economics & Policy	3	50	100		150
MPH IX	Dissertation*				300	300
	Total					600

	Grand Total					1200
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Dissertation*:

The dissertation needs to be submitted three months prior to the date of the university examination. It will then be evaluated by an external reviewer who scores or grades the dissertation. A minimum score of 50% is required as eligibility to appear for the University examination. There will be a Dissertation Viva as part of the second-year university examination and marks will be awarded based on the performance. Marks for the dissertation will be awarded during the university examination as well. To pass for the second year University Examination 50% mark is required for the dissertation viva separately.

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