



آغا خان یونیورسٹی  
THE AGA KHAN UNIVERSITY



*Celebrating 25 years*  
Master of Science in  
Epidemiology & Biostatistics  
Admission Information  
2008

## The Aga Khan University

Under its Charter “The Aga Khan University is open to all person of either sex and of whatever religion, race, creed, colour or domicile who are academically qualified for admission to the courses of study offered by the University”.

## The Programme

In October 1996, the Aga Khan University through the Department of Community Health Sciences introduced a two year Master of Science in Epidemiology Programme, which has now been enriched in terms of the diversity of its course work and renamed as Master of Science in Epidemiology & Biostatistics (MSc Epi & Bio). The programme is designed to train health professionals to have an in-depth knowledge of epidemiology, biostatistics and their application in analyzing the major public health issues in Pakistan and developing countries with a focused approach to regional problems and needs.

Graduates of the programme are expected to play a leading role in the field of public health by analyzing major public health problems. To date, most of our graduates have been offered excellent employment opportunities by some well-known international organizations.

## Objectives of the Programme

The programme has the following objectives:

- To develop human resources who understand the principles of epidemiology and biostatistics;
- To develop persons who can critically identify public health problems and use epidemiology and biostatistics to characterize them at the population level. These persons will be able to design and conduct epidemiological studies, manage and analyse data and use results to design interventions;
- To provide experience in applying epidemiological and biostatistical principles to public health problems in the context of resource limitations of developing countries.

## Programme Structure

This is a two-year programme comprising eight terms of three months duration. All the course work is scheduled during the first eighteen months, while the last six months are mainly for research, teaching and thesis writing. In addition to lectures and tutorials, students are also involved in protocol writing, data collection and finally conducting a research study, in which the faculty members provide all possible support and guidance as advisors. The programme has a continuous evaluation system, which includes presentations, mid term(s) and final examinations during each term. The students are also required to defend their thesis at the end of the programme.

## Flexible Programme

The University is offering applicants the choice to complete their stipulated two-year requirement in extended time; i.e. either in three or four years. Health professionals, with other responsibilities and commitments who wish to upgrade their qualifications, would now be able to benefit from the flexible programme to complete the required courses in three or four years instead of two years. Further details regarding flexibility are available from the concerned Programme Directors.

## The Curriculum

The curriculum of the programme focuses on the integration of its major components: epidemiology, biostatistics and public health.

The students apply their knowledge by conducting a research study and writing a thesis. The students have access to the latest information through free Internet and a well equipped library and inter library loan service.

## Programme Curriculum

YEAR I	Credit (hrs/wk)	YEAR II	Credit (hrs/wk)
Term I (October to December)		Term V (October to December)	
Principles of Epidemiology	3	Applied Logistic Regression	3
Fundamentals of Biostatistics	3	Selected topics in Epidemiology I	2
Principles of Public Health	2	Cost Effectiveness & Cost Analysis	3
Society, Culture & Health	2	Journal Club	2
Computer Skills	0		
Term II (January to March)		Term VI (January to March)	
Study Design	2	Selected topics in Biostatistics	2
Demography & Survey Sampling Methods	3	Selected topics in Epidemiology II	2
Critical Appraisal & Protocol Development	3	Rights, Ethics & Equity in Health	2
Health Economic	2	Journal Club	1
Journal Club	1		
Term III (April to June)		Term VII (April to June)	
Advanced Epidemiology	3	Research in Progress	
Non-parametric Statistics & Multiple			
Linear Regression	3		
Environmental & Occupational Health	2		
Journal Club	1		
Term IV (July to September)		Term VIII (July to September)	
Pre-testing questionnaire and Data Collection		Research in Progress	

## Research Thesis

As a requirement of the programme, all students are required to develop a research protocol, collect and analyze data and write a thesis. This provides the students an opportunity to gain first-hand experience of conducting a complete research study. Theses committees supervise the students' research projects. Each thesis committee comprises a thesis supervisor and at least one committee member. In order to conduct their MSc thesis research, students are encouraged to seek funds by applying to national and international funding agencies.

## Graduation Requirements

- An overall Grade Point Average (GPA) of at least 2.5 in course work; and
- Successful completion and defense of the thesis
- A minimum of Grade 'C' equivalent to 60% is required to pass a course

## Employment Opportunities for Graduates

There are employment opportunities available to graduates not only within the country but also at the regional and international levels. To date, most of the graduates have been offered excellent employment opportunities by the Government as well as some renowned multinational and international organisations.

## Admission to the Programme

Admission to the programme is based on merit and proven commitment to public health. Merit will be evaluated through scholastic achievements and performance of applicants in the AKU MSc Epi&Bio Admission Test. The commitment of the applicant will be assessed on the basis of interviews, past experience and future plans.

Applicants in the public or private sector from Pakistan and overseas may apply. A high academic score in any single discipline or any outstanding achievement alone may not be sufficient for selection.

## Criteria for Application

Candidates who have at least one year work experience, preferably in a health-related field at the time of application and hold at least one the following degrees are eligible to apply:

- An MBBS degree
- A Masters degree (in science or any social science discipline)
- Four-year bachelors degree or equivalent e.g. BScN; BDS; DVM, etc

## Application Requirements

Application for admission must be on the prescribed application form, along with the supporting documents overleaf:

### Scholastic Achievements

A complete set of official transcripts of academic record in secondary school, college, graduate school, and/or professional schools, with certification of degrees conferred, courses taken and grades received.

### Statement of Objectives

A statement of objectives, summarizing past education, training and experience, as well as interests and future aims, is required. A curriculum vitae and list of publications, if any, should be included.

### Letters of Recommendation

Letters of recommendation from at least three people who are well-acquainted with the applicant's previous academic work and professional experience.

### Application Fee

A mandatory non-refundable application fee of Rs.2000/- in cash, if deposited in person, or as a bank draft, if mailed in Pakistan. For overseas applicants, the application fee is US\$30. The bank draft should be drawn in favor of Aga Khan University, Karachi.

## Evaluation of Applicants:

Applicants are evaluated in three stages:-

Stage I: Applications are reviewed and applicants are invited to write an Admission Test.

Stage II: Includes interviews with senior faculty members of the Programme.

Stage III: Final selection will be made by the AKU Board of Graduate Studies on the basis of an overall assessment of the candidature in comparison with other shortlisted candidates.

## Admission Test and Equivalent

All applicants resident in Pakistan are required to write the AKU-MSc Epi and Bio Admission Test. The Admission Test comprises three components: mathematics, English and logical reasoning. The mathematics component is designed to assess basic knowledge of the subject, including critical reasoning, deduction and problem solving ability. The English language component evaluates English competency and reading comprehension. The logical reasoning component is aimed to assess the logical thinking ability of the candidates.

Overseas applicants are required to write the Graduate Record Examination (GRE), and must submit their test scores by April 30, 2008. Applicants whose first language is not English are recommended to provide evidence of their proficiency in English by including details of any recognized test of English language such as Test of English as a Foreign Language (TOEFL) or British Council's International English Language Testing System (IELTS).

The University has not authorized any publication or preparatory classes for the Admission Test.

## Shortlisting and Interviews

Applicants will be shortlisted on the basis of the Admission Test and /or GRE, as applicable. The purpose of the interview is to assess a variety of attributes, including integrity, motivation for the interest in the programme, maturity, social and cultural awareness, knowledge of public health issues in developing nations and evidence of initiative and commitment to the profession.

Interviews are conducted in Pakistan. However, the University may be able to make special arrangements to interview overseas applicants in their place of residence.

## Tuition and Other Charges

The students are required to pay their tuition fee along with other dues as noted in the schedule overleaf.

ADMISSION SCHEDULE 2008	
Last date for receiving applications	March 28, 2008
Admission Test at the following centres Karachi Rawalpindi	April 05, 2008
Interviews	June 2008
Announcement of Class	July 2008
Commencement of Class	October 06, 2008

**ESTIMATED ANNUAL COST  
2008 - 2009**

Installment #	Due by	Payment for	Amount in Pak. Rupees
First	September 01, 2008	Tuition Fee Deposit Student Health Graduation Fee	112,750 5,000 4,600 5,600
Second	December 01, 2008	Tuition	112,750
Third	March 02, 2009	Tuition	112,750
Fourth	June 01, 2009	Tuition	112,750

### Financial Assistance

The University operates a financial assistance programme and accepts applications for limited financial assistance from students who are selected on merit and have demonstrated financial need after having thoroughly explored all other possible sources of financial assistance. Experience has shown that students have been successful in obtaining scholarships from different sources to complete their training.

### Accommodation

There is limited accommodation on-campus. When available, preference in allocation of rooms is given to those from outside Karachi. These hostels provide single and shared, non-air-conditioned, furnished accommodation and a limited number of twin sharing flats for women.

Room fees are charged for all accommodation on campus. Single room charges are Rs. 4,500/- per month payable in advance. Women who share a flat will be charged Rs. 4,500/- per person per month payable in advance.

## AKU FACULTY OF EPIDEMIOLOGY & BIOSTATISTICS

### Professors

The Noordin M. Thobani Professor and Chairman

Gregory Pappas

*MD, PhD, Case Western*

The Noormahomed Pirmahomed Sheriff

Professor and Vice Chair

Mehtab S. Karim

*MA Chicago; PhD Cornell*

Juanita Hatcher (Part time)

*MSc, PhD Toronto and Liverpool*

Associate Professor and Vice Chair

Masood Kadir

*MBBS Karachi; MCPS Pakistan; MPH Hawaii;*

*FCPS Pakistan*

### Associate Professors

Abdul Hakeem Jokhio

*MBBS Sindh; MSc, PhD Birmingham*

*(Joint appointment with Department of Obs/Gyn Dept)*

Patricia Omidian

*MA, PhD California*

Tazeen Jafar

*MBBS AKU; MPH Harvard*

*Diplomat of American Boards of Internal Medicine,*

*Paediatrics and Nephrology*

*(Joint appointment with the Department of Medicine)*

Assistant Professor and Director,

MSc Epidemiology & Biostatistics Programme

Amna Rehana Siddiqui

*MBBS Karachi; MSPH Alabama;*

*FCPS Pakistan; PhD UC Davis*

### Assistant Professors

Bilal Iqbal

*MBBS Peshawar; MSc AKU;*

*FCPS Pakistan; PhD LSHTM*

Imtiaz Jehan

*MBBS Karachi; MSc Mc Gill; FCPS Pakistan*

Iqbal Azam

*BSc, MSc Karachi*

Omrana Pasha

*MBBS AKU; MSPH Alabama*

*Diplomat of American Board of Internal Medicine*

*(Joint Appointment with Department of Family Medicine)*

Sadia Mahmud

*MS Indiana; MSc Islamabad; PhD Indiana*

Syed Zafar Ahmed Fatmi

*MBBS Karachi; FCPS Pakistan*

Senior Instructors:

Naveed Zafar Janjua

*MBBS Rawalpindi; MSc AKU*

Rozina Nuruddin

*MBBS Karachi; MSc McGill*

Sameera Rizvi

*MBBS Karachi, MSc AKU*

Shafquat Rozi

*MSc (Statistics) Karachi*

Uzma Shamsi

*MBBS Peshawar; MSc AKU*

Yasmin Parpio

*BScN, MSc AKU*

*(Joint Appointment with School of Nursing)*

Other CHS Faculty involved in the Programme:

Associate Professor

Kausar S. Khan

*MA Karachi and McMaster*

Assistant Professors

Babar T Shaikh

*MBBS Punjab; MBA Islamabad;*

*MPH (Nancy); Doctoral Candidate (Liverpool)*

Ghazala Rafique

*MBBS Sindh; MPH Quaid-e-Azam; FCPS Pakistan*

Romaina Iqbal

*MSc Karachi; MPH Baqai; PhD Mc Master*

*(Joint appointment with Department of Medicine)*

Sarah Saleem

*MBBS Karachi; MSc AKU; FCPS Pakistan*

Instructor

Mufiza Zia Kapadia

*MBBS Sindh; MSc AKU*

Other Faculty involved in the Programme:

Associate Professor

Anita K. M. Zaidi

*MBBS, SM, FAAP*

*Department of Paediatrics & Child Health*

Visiting Assistant Professor

Mubina Agboatwala

*MBBS Karachi; DCH Karachi; MCPS Pakistan*

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