

The Clinical Epidemiology Unit (CEU), Division of Epidemiology & Biostatistics, in the Department of Community Health Sciences (CHS) of Aga Khan University (AKU) introduced a “Clinical Scholars Programme” in 2003, which offers a Diploma in Clinical Epidemiology. This Diploma programme specifically aims to develop clinicians into clinical investigators. The particular advantage of this programme over the existing programmes at AKU is that the clinicians who cannot take full time out of their clinical duties would get an opportunity to receive rigorous training on a part-time basis. We believe that this initiative will promote high quality clinical research at AKU, and Pakistan, and ultimately translate into improving the quality of health care.

### Objectives of the Programme

The Programme has the following objectives:

- To train specialist clinicians to develop in-depth knowledge of clinical epidemiology and related skills, and to apply these to clinical research.

*Specifically the Programme will:*

- Develop human resources who understand and can apply the principles of epidemiology and biostatistics in the clinical setting.
- Develop clinical investigators who can critically identify clinical problems and be able to design and conduct epidemiological and health services research studies, interpret results of data analysis, and use results to design interventions.
- Provide experience in applying epidemiological and health services research principles to clinical problems, and in the advancement of quality of care, in the

context of resource limitations of developing countries.

### Programme Structure

Using the Masters of Science Programme in Epidemiology and Biostatistics as the base, the Clinical Scholars Programme will offer a Diploma in Clinical Epidemiology, specifically designed to develop skills in clinical epidemiology that would enable physicians to take leading roles in designing and conducting clinical research and applying their findings to improving quality of care.

The courses offered in this Programme are focused in particular on evaluating clinical effectiveness in specialty-level medicine. The Programme will give particular emphasis to clinical trials and relevant aspects of Biostatistics. It would also include components of cost-effectiveness analysis, medical decision analysis, medical research ethics, drug development and approvals, health services research, and quality improvement in health care. The enrollment in this Programme would be limited to specialist clinicians (as defined by full Board Certification in Pakistan or abroad).

The Programme requires a part-time commitment for one year (approximately two half days/week for the most part). However, the students would have the flexibility to complete the required courses over a span of three years. Subject to AKU developing a viable system for transferring credits, credits earned during this course would be transferable to the Master of Science degree Programme in Epidemiology and Biostatistics if the candidate later wishes to pursue the full degree Programme within three years of completing the diploma Programme. However, admission to the “Clinical Scholars

Programme” does not guarantee admission in the MSc Programme, which requires its own criteria to be fulfilled by each and every applicant.

In the long run options of offering this Programme via distance learning would be explored.

### Admission Requirements:

Admission to the Clinical Scholars Programme is based on merit and on admission test, and proven commitment to clinical research. Candidates who have Board Certification or equivalent in any recognised medical specialty may apply.

The Programme is open to clinicians at AKU.

**Fees:** The total fee for the diploma course (17 credit hours) would be about PKR 154,362, which is charged on per credit basis. There is no provision for any financial assistance built within this Programme. However, participants are encouraged to seek external funds.

### CURRICULUM FOR DIPLOMA IN CLINICAL EPIDEMIOLOGY

<u>Term I (Oct – Dec)</u>	<u>Credit (hrs)</u>
*Principles of Epidemiology	3
*Fundamentals of Biostatistics	3
Computer Skills	0
* These courses are a prerequisite for the courses offered during terms II to IV.	

### **Term II (Jan – Mar)**

Critical Appraisal & Protocol Development	3
Study Design	2
Journal Club	1
Seminars in Clinical Research	1

### **Term III (Apr – Jun)**

Applied Multiple Linear Regression	3
Evidence-Based Medicine & Critical Appraisal - I (Journal Club)	1

### **Term IV (Jul – Sept)**

Research Project & Report Writing	0
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### **Duration:**

The proposed part-time Programme comprises four terms of three months duration. The purely didactic course work will be taught during each of the four terms over 12 months. In Term III the students will be expected to further develop their research protocols. These protocols will be implemented in Term IV where data collection would begin. Participants would be encouraged to bring to the Programme their on-going research projects for practical experience. The research would be guided by a thesis supervisor.

### **Mode of teaching:**

Teaching in the Programme includes lectures, tutorials, computer sessions, interactive discussions, and presentation of published research articles. In addition, the students are expected to be self-learners as there is access to state-of-the-art computer facilities including Internet.

### **Evaluation:**

The Programme participants will have a continuous evaluation system, which includes presentations, mid term(s) and final assessments during the term.

### **Diploma Requirements:**

- A minimum of C Grade (i.e. 60%) in each course, and
- A cumulative Grade Point Average (GPA) of 2.5, and
- Successful submission of research report.

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THE AGA KHAN UNIVERSITY

## **CLINICAL SCHOLARS' PROGRAMME**

## **DIPLOMA IN CLINICAL EPIDEMIOLOGY**

**2008**

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