

The Programme

The Master of Science Programme in Clinical Research is a part of Post Graduate Medical Education Research (PGME) Scholarship initiative aimed to promote an academic research culture at Aga Khan University (AKU), particularly amongst clinical trainees, fellows and faculty. The long term objectives of the programme are to facilitate development of clinical investigators and scientists with the necessary tools and commitment for conducting research, and to construct local mechanisms and capability for achieving this goal.

The integration of this MSc programme into PGME training would provide the clinical trainees an opportunity for exposure to critical thinking and formulation of research questions, writing research proposals, developing qualitative and quantitative skills, and exposure to various public health problems during the initial phase of their clinical training, thereby stimulating the quest for the evidence recommending current medical practice. This programme would enable professional development and capacity building among residents and fellows to prepare them for future leadership in academic medicine.

Objectives of the Programme

The programme, housed under Clinical Epidemiology Unit of Department of Community Health Sciences, has the following objectives:

- To train specialist clinicians to develop in-depth knowledge and tools of research and gain intensive practical experience in its application;
- Demonstrate, through applied learning experience and thesis, the ability to integrate knowledge and skills from key clinical and public health disciplines towards the development, implementation and evaluation of patient and population-based strategies to enhance health in the community.

Specifically the programme will provide:

- Personalised training for individuals who wish to pursue careers as clinician-investigators;
- Provide opportunities for specialised training in research, enabling the individual to conduct independent research including translational basic and clinical research; be well versed in tools for practicing evidence-based medicine, and generation of clinical practice guidelines;
- Combination of clinical training and research experience leading to clinical specialty (or subspecialty) and research certification;
- Opportunity to pursue PhD degrees in biomedical science or clinical research.

Admission Requirements

Eligibility:

Residents enrolled in PGME programme;

- going into year 2 or higher
- final year residents excluded

Fellows enrolled in PGME programmes;

- after at least one year at AKU
- final year fellows excluded

The admission evaluation process would include an admission test and interviews of the short-listed candidates.

PROGRAMME CURRICULUM

YEAR - I

Term I (Oct – Dec) Credit (hrs)

Core Courses:

**Principles of Epidemiology	3
**Fundamentals of Biostatistics	3
Introduction to Management	3
*Computer Skills	0

Elective Courses:

Public Health	2
Society, Culture and Health	2
Cost Effectiveness and Cost Analysis	3

Health Management Information System	2
Human Resource Management	3
Management Information Systems	2
∞Cell Biology (CMB1)	4

** These courses are a prerequisite for the courses offered during terms 2 to 4. s

∞ This course is a prerequisite for CMB II, III and IV courses in subsequent terms.

Term II (Jan – Mar)

Core Courses

*Protocol Development	3
*Introduction to Clinical Epidemiology or Study Design	2
*Ethics, Rights and Equity in Health	2
*Evidence-Based Medicine & Critical Appraisal I (Journal Club) Seminar in Clinical Research	1

Elective Courses:

Demography and Survey Methods	3
Strategic Planning and Marketing	3
Health Systems Research & Evaluation	3
Health Economics	2
Institutional Management	2
CMB II: Biopolymers	3

Term III (Apr – Jun)

Core Courses:

*Principles of Clinical Trials	2
*Applied Multiple Linear Regression	3
*Evidence-Based Medicine & Critical Appraisal II (Journal Club)	1

Elective Courses:

Advanced Epidemiology	3
Qualitative Research Methods	3
Quality Management in Health Services	3
Legal Issues in Health Policy and Practice	2
Environmental & Occupational Health	2
Political Economy of Health Policy & Health Sector Reforms	2
CMB III: Mechanism of disease	3
CMB IV: Methods in Cellular and Molecular Biology	3

Term IV (Jul – Sept)

Core Courses

*Selected Topics in Research I 1

Elective Courses:

Selected Topics in Research II 2

YEAR - II:

THESIS AND HANDS-ON RESEARCH

*Hands-on Research: pre-testing and data collection 15

*Thesis Research and Thesis Writing 15

CLINICAL TRAINING AND COURSES 15

Programme Structure:

The programme requires a full-time commitment for one year with limited clinical responsibilities. Other core requirements would be completed over the subsequent one to three years. A total of 80 credit hours would need to be completed, these include 25 credits for core coursework requirement; 10 credits for elective courses; 15 credits for clinical work and courses for clinical specialty requirement, 15 credits for hands on research (data collection); and 15 credits for thesis research. Students would have the flexibility to complete their thesis research over a span of 3 years under individualised supervision of thesis committee. The committee would comprise of at least two members, including an epidemiologist (thesis supervisor) and a clinician. If required, the students may include more members in their thesis committee.

Students would be encouraged to bring their on-going research projects to the programme for practical experience.

Evaluation Systems:

There will be a continuous evaluation system in the programme, which includes presentations, mid term(s), final assessments during the term, and successful completion and defense of thesis.

Graduation Requirements:

- A minimum of 60% (GPA of 2.0) in each course and clinical component;
- An overall GPA of at least 2.5;
- Successful completion and defence of thesis;
- Successful completion of clinical training.

All University policies and procedures related to graduate students would be applicable to the MSc Clinical Research Students.

Cost and Expenses

The residents and fellows would be paid their regular salary during the entire duration of the programme. No tuition fee would be charged. The trainees would be responsible for the costs of books, stationary and meals etc.

Award of MSc Degree

The degree of **MSc in Clinical Research of Aga Khan University** would be awarded to the students upon successful completion of the MSc and Residency Training requirements.

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THE AGA KHAN UNIVERSITY

MSc PROGRAMME IN CLINICAL RESEARCH

2008