For Admission into

Bachelor of Medicine and Bachelor of Surgery (MBChB)

Aga Khan University is committed to excellence in teaching, research, and service, and to developing healthcare professionals of the highest ethical and professional standards.

Eligible candidates for the MBChB programme must go through a pre-entry assessment by the University. This assessment is a two-stage process. The first stage is a written entry test consisting of Science, Mathematics and an English essay paper. The top scorers from the Science and Mathematics tests will be invited for a second phase, which is an oral interview. The final selection is based on the aggregate scores of all the four assessments.

ENTRANCE TEST PROCESS

Aga Khan University (AKU) is committed to a fair, transparent, and merit-based admissions process. To uphold these principles, all eligible applicants are required to sit for an online entrance test.

Applicants who reside near AKU campuses are encouraged to sit for the tests at designated AKU campuses in:

- Nairobi
- Kampala
- Dar es Salaam
- Pakistan

However, international applicants and those unable to travel may take the examination online from their respective locations.

To ensure equity and preparedness, all applicants will be:

- Trained on how to use the AKU online testing system
- Given an opportunity to attempt mock sessions before the actual test to ensure that they are comfortable with the online testing system

IMPORTANT DATES

- Training: Friday, 17 April 2026
- Mock sessions: Monday, 20 April – Wednesday, 22 April 2026
- Clarifications & Queries: Wednesday, 22 April 2026 (3:00 – 5:00 PM)

ENTRANCE TEST STRUCTURE

All eligible applicants will be invited to sit for three compulsory assessments on Saturday, April 25, 2026, as outlined below:

Subject	Duration	Number of Questions
Mathematics	1.5 hours	50 questions
Science (Biology & Chemistry)	2 hours	100 questions
English essay	1 hour	One essay

CUT-OFF DETERMINATION

The cut-off score for progression into phase two will be determined based on a performance index out of 70 marks, drawn from:

- Science (Biology & Chemistry): 40 marks
- Mathematics: 30 marks

Applicants who score above the cut-off will be invited for the interview stage between May 6–May 8, 2026. English essay marks will be considered for only candidates who progress to the interview stage.

FINAL SELECTION WEIGHTING

The final selection score will be computed using the following components:

Component	Weightage
Mathematics	30
Science (Biology & Chemistry)	40
English essay	10
Interview	20
Total	**100**

ENTRANCE TEST FORMAT AND EXPECTATIONS

1. The entrance test assesses conceptual understanding, application of knowledge, and analytical thinking.
2. Questions are presented in multiple-choice format (MCQs) with five options per question.
3. Candidates are expected to demonstrate:
    - Scientific reasoning
    - Numerical competence
    - Data interpretation skills
4. Test content is drawn from KCSE, IB, IGCSE, A-Level, and other equivalent international curricula. Some questions may be general in nature.
5. The test is designed to be appropriate and fair for all applicants who meet the minimum entry requirements for the MBChB programme.
6. See below a list of key topics that the Science and Mathematics tests will cover.

ENGLISH ESSAY FORMAT AND EXPECTATIONS

1. The English essay will be based on a general health-related question designed to assess the applicant's awareness and understanding of contemporary health-issues.
2. It evaluates the applicant's ability to analyze, reason, and present logical arguments relevant to medicine and healthcare.
3. The essay also assesses written English proficiency, including clarity of expression, coherence and grammar.
4. Applicants are expected to demonstrate critical thinking, ethical awareness, and the ability to relate medical concepts to real-life contexts.
5. Responses should be original, focused on the question, and written within the allocated time.

INTERVIEW FORMAT AND EXPECTATIONS

1. The interview assesses the applicant's motivation and suitability for medical training and the medical profession.
2. Questions may be structured or scenario-based to assess decision-making and problem-solving skills**.**
3. The interview is conducted by a panel of trained clinical and non-clinical people to ensure fairness and consistency.

LIST OF TOPICS

1. SCIENCE (CHEMISTRY AND BIOLOGY)

A: CHEMISTRY

1. Atomic Structure and Nature of Matter

a) Structure of the atom: protons, neutrons and electrons
b) Isotopes and relative atomic mass (Carbon-12 scale)
c) Electron configuration and energy levels
d) Formation of ions (cations and anions)
e) Periodic table as a classification tool

2. The Mole, Stoichiometry and Quantitative Chemistry

a) The mole as a counting unit
b) Molar mass
c) Empirical and molecular formulae
d) Balancing chemical equations
e) Reacting ratios
f) Limiting reagent
g) Percentage yield / quantitative calculations

3. States of Matter and Gas Laws

a) States of matter (solid, liquid, gas)
b) Kinetic theory of matter
c) Gas laws (Boyle's, Charles', combined gas laws)
d) Molar gas volume
e) Ideal gas behavior

4. Chemical Bonding and structure

a) Ionic bonding
b) Covalent bonding
c) Metallic bonding
d) Dot-and-cross / Lewis structures
e) Intermolecular forces (hydrogen bonding, van der Waals)
f) Relationship between bonding and physical properties
g) VSEPR / molecular shape prediction

5. Periodicity and Periodic Trends

a) Arrangement of elements in periods and groups
b) Periodic trends (atomic size, ionisation energy, reactivity)
c) Group properties (especially Groups 1, 2, 17)
d) Oxidation states

6. Acids, Bases and Salts

a) Acids and bases (definitions)
b) Strong vs weak acids and bases
c) pH scale
d) Neutralisation reactions
e) Salts: preparation and properties
f) Acid–base indicators

7. Energetics / Thermochemistry

a) Endothermic and exothermic reactions

b) Energy changes in chemical reactions

c) Enthalpy concepts

d) Hess's Law

e) Energy level diagrams

f) Fuels and energy considerations

8. Rates of Reaction (Kinetics)

a) Rate of reaction

b) Collision theory

c) Activation energy

d) Factors affecting rate (temperature, concentration, pressure, catalysts)

9. Chemical Equilibrium

a) Reversible reactions

b) Dynamic equilibrium

c) Le Châtelier's principle

d) Industrial applications (e.g. Haber process)

10. Redox and Electrochemistry

a) Oxidation and reduction (electron transfer)

b) Oxidation numbers

c) Electrochemical cells

d) Electrolysis

e) Applications (metal extraction, electroplating)

11. Organic Chemistry (Core)

a) Introduction to organic chemistry
b) Hydrocarbons (alkanes, alkenes)
c) Functional groups
d) Homologous series
e) Basic reactions (addition, substitution, oxidation)
f) Polymers (addition polymers at minimum)

B: BIOLOGY

1. CONTROL AND COORDINATION

a) Control and coordination in mammals
b) Control and coordination in plants
c) Hormone signaling

2. INHERITANCE

a) Passage of information from parents to offspring
b) Role of genes in determining phenotypes
c) Gene control
d) Multiple Alleles
e) Pedigree charts

3. SELECTION AND EVOLUTION

a) Variation
b) Natural and artificial selection
c) Evolution
d) Extinction
e) Speciation

4. GENE TECHNOLOGY

a) Principles of gene technology
b) Genetic technology applied to medicine
c) Genetically modified organisms in agriculture

5. CLASSIFICATION, BIODIVERSITY, CONSERVATION

a) Classification
b) Biodiversity
c) Conservation
d) Cladistics
e) Dichotomous Keys
f) DNA Barcodes

6. CELL STRUCTURE

a) Microscope in cell studies
b) Cells as the basic units of living things
c) Cell organelles

7. BIOLOGICAL MOLECULES

a) Test for biological molecules
b) Structure and examples of carbohydrates, proteins, lipids and water
c) Nucleic acids

8. ENZYMES

a) Mode of action
b) Factors affecting the action
c) Metabolic pathways
d) Enzyme and feedback inhibition

9. CELL MEMBRANE AND TRANSPORT

a) Fluid mosaic membranes
b) Movement into and out of cells
c) Vesicular transport

10. CELL DIVISION

a) Replication and division of nuclei and cells
b) Chromosome behavior in mitosis and meiosis
c) Non-disjunction---down syndrome

11. NUCLEIC ACID AND PREOTEIN SYNTHESIS

a) Structure of nucleic acids and replication of DNA
b) Protein synthesis
c) Transcription and translation
d) Genetic diseases ---sickle anaemia

12. TRANSPORT IN PLANTS AND MAMMALS

a) The circulatory system
b) Transport of oxygen and carbon dioxide
c) The heart
d) Structure of transport tissues in plants
e) Transport Mechanisms
f) Oxygen dissociation
g) Bohr Shift

13. GAS EXCHANGE

a) Structure and functions
b) Ventilation
c) Lung capacity

14. IMMUNITY

a) The immune system
b) Antibodies and vaccination
c) Zoonoses

15. RESPIRATION

a) Energy: Structure of ATP, RQs and Respirometers
b) Stages of aerobic and anaerobic respiration…Glycolysis, Krebs cycle and Electron Transport Chain

16. PHOTOSYNTHESIS

a) As an energy transfer process
b) Limiting factors to the process
c) Action spectrum, Photolysis and Calvin cycle

17. EXCRETION

a) Structure of kidneys and nephrons
b) Urine formation

18. HOMEOSTASIS

a) Homeostasis in mammals

b) Homeostats in plants

2: MATHEMATICS

1. Numbers and Algebra

a) Quadratic expressions and equations

b) Logarithms

c) Powers and roots

d) Limits and accuracy

e) Algebraic fractions

f) Algebraic equations

g) Sequences and series

h) Indices

i) Ratio, proportion and rates

j) Linear programming

k) Linear equations-simultaneous equations

2. MEASUREMENTS AND GEOMETRY

a) Similarity, L.S.F, A.S.F & V.S.F

b) Symmetry

c) Transformations

d) Area and volume

e) Coordinates lines, midpoint and parallel lines.

f) Angle properties

g) Graph

h) Trigonometry

i) Speed and acceleration

j) Time

3. STATISTICS AND PROBABILITIES

a) Statistics

b) Probability

4. CALCULUS

a) Differentiation

b) Integration