ADMISSION REQUIREMENTS

Doctor of Philosophy in Applied Science

1. A Master's degree in life sciences (biology) or related field, from universities recognised by the Senate
2. Other qualifications equivalent to Master's degree and relevant experience recognised by the Senate
3. Malaysian candidates should pass English paper in the Sijil Pelajaran Malaysia (SPM). International candidates are required to achieve a minimum score of 5.5 in IELTS or Band 3 in MUET or its equivalent

Master of Science (Biotechnology)

1. A Bachelor's degree in life sciences (biology) or related field, with a minimum CGPA of 2.75, from universities recognized by the Senate
2. Other qualifications equivalent to Bachelor's degree and relevant experience recognised by the Senate or pass the APEL (subject to programmes approved by MQA)
3. Malaysian candidates should pass English paper in the Sijil Pelajaran Malaysia (SPM). International candidates are required to achieve a minimum score of 5.5 in IELTS or Band 3 in MUET or its equivalent

APPLICATION FOR ADMISSION

All programmes by research are offered in February and September each year. Online applications are opened throughout the year at https://mohon.ums.edu.my/pasca/.

CONTACT

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Programme details

Fee structure

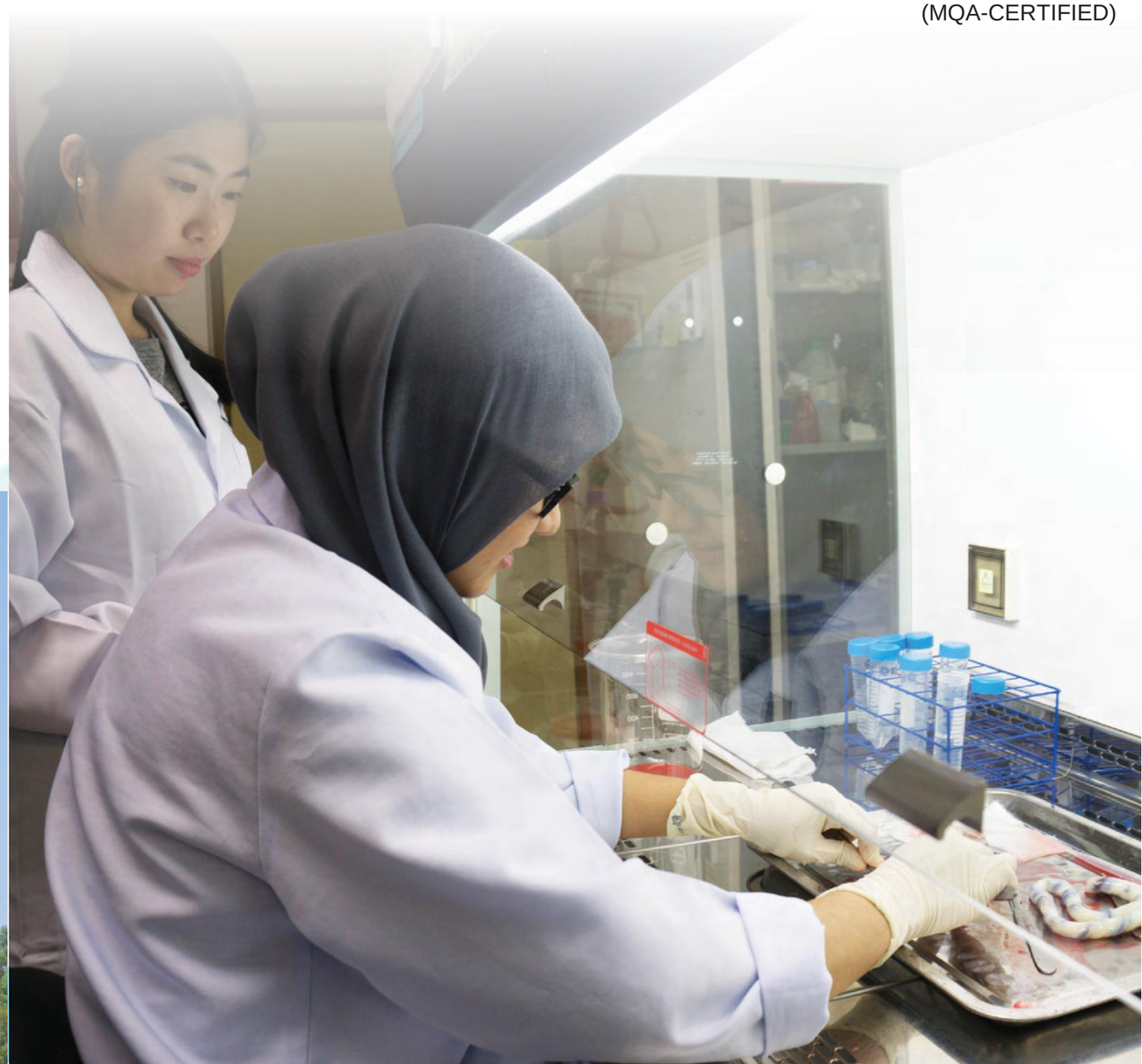
UMS
UNIVERSITI MALAYSIA SABAH

BIOTECHNOLOGY RESEARCH INSTITUTE

POSTGRADUATE STUDIES IN BIOTECHNOLOGY

PROGRAMME BY RESEARCH

(MQA-CERTIFIED)



BACKGROUND

The Biotechnology Research Institute (BRI) was established in January 2002 to function as Centre of Excellence in the field of biotechnology at Universiti Malaysia Sabah (UMS). The establishment of BRI is in tandem with the nation's efforts to promote research and development in biological or life sciences for the improvement of the quality of human life in relation to medicine, food, agricultural science and environmental protection

VISION

Biotechnology Research Institute strives to be a world class research center in the field of biotechnology

MISSION

To promote research and development in life sciences through market-driven educational programmes and strategic research

MAIN FUNCTION OF BRI

- To promote research and postgraduate training through a market driven education programme in the field of biotechnology
- To undertake strategic biotechnology research in key areas relevant to the geographical location of Universiti Malaysia Sabah
- To serve as a facility centre, housing high-end analytical equipment
- To serve as a biotechnology hub for Sabah and its surrounding regions
- To develop corporate partnerships to help drive the nation's biotechnology industry
- To create and encourage an entrepreneurial culture among UMS researchers in the commercialization of biotechnology research and innovation outputs
- To support and contribute to the local and national bio-industries

PROGRAMME BY RESEARCH (FULL-TIME / PART-TIME)

Programmes Offered / Degrees Awarded:

- **Doctor of Philosophy in Applied Science (MQA/FA7063)**
- **Master of Science (Biotechnology) (MQA/FA7055)**

Research activities at Biotechnology Research Institute cover a wide range of topics, with emphasis on the three thrust areas: Agrobiotechnology, Healthcare Biotechnology, and Industrial Biotechnology. The main research objective at the BRI is to harness the natural resources of Sabah through biotechnology in order to generate commercially-viable products. Among the specializations at the BRI are:

- Algal Biotechnology
- Bacterial Biotechnology
- Biochemistry
- Bioinformatics
- Bioprocess Engineering
- Biosensor
- Nanotechnology
- Natural Product Chemistry
- Cell Biology
- Conservation Genetics
- Fermentation
- Genetic Engineering
- Genomics
- Medical Biotechnology
- Plant Biotechnology
- Proteomics
- Molecular Genetics
- Medical Parasitology
- Molecular Biology
- Molecular Epidemiology
- Molecular Microbiology
- Metabolic Engineering
- Population Genetics
- Virology

ADVANCED ANALYTICAL INSTRUMENTS

Genetic Analyzer

FTIR

GC-MS

LC-MS

NMR

SEM

TEM

Bioreactor

RESEARCH FACILITIES

Biochemistry Lab

Microbiology Lab

Genomics Lab

Natural Product Lab

Instrumentation Lab

Bioinformatics Lab

Biosafety Level 3 Lab

Plant *In Vitro* Lab

Pilot Plant Lab