BACKGROUND

The Biotechnology Research Institute (BRI) was established in January 2002 as Center 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 relations 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 biological or life sciences through market-driven educational programmes and strategic research

Get to know us more, please visit our website:

SCAN ME

https://www.ums.edu.my/ipb/index.php

MALAYSIA MADANI

Transformasi Ke Arah UNIVERSITI INDUSTRI 4.0

Eco Campus
Transforming Ideas Into Reality

UMS
UNIVERSITI MALAYSIA SABAH

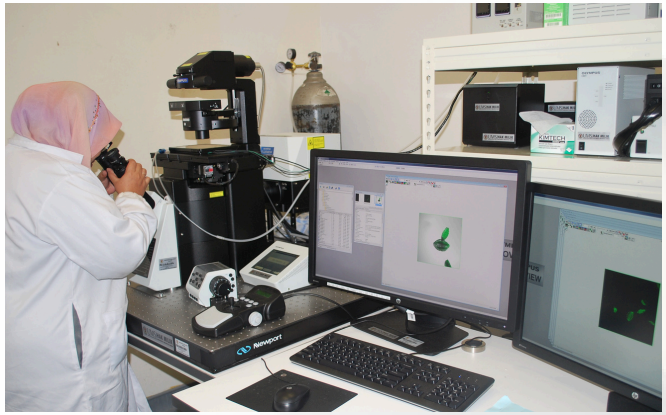
BIOTECHNOLOGY RESEARCH INSTITUTE
Institut Penyelidikan Bioteknologi

POSTGRADUATE STUDIES

(by coursework)

MASTER OF SCIENCE

MOLECULAR BIOLOGY



Master of Science (Molecular Biology) is offered as a **coursework programme** aims to give students a sufficient background in molecular biology while having a focus on the current applications in molecular biology specifically to instil theoretical knowledge and skills in molecular biology; to equip candidates with the relevant knowledge required for research in the field of molecular biology and biotechnology; and to prepare for PhD enrolment in related areas of biotechnology.

The programme provides students the fundamental competencies (such as molecular genetics, topics, and techniques) in molecular biology while allowing enough breadth to pursue various aspects of biotechnology (e.g., industrial, plant, and microbiological biotechnology).

Students are also given the opportunity to carry out high-impact research projects using state-of-theart research instruments such as the next generation sequencers, transmission and scanning electron microscopes, confocal laser scanning microscope, industrial scale bioreactors among others.

Mode of study
Full Time

Duration
3 semesters

ADMISSION REQUIREMENT

- Bachelor of Science with a CGPA of 2.75 and above, in life sciences (biology) or its equivalent, from universities recognised by the Senate.
- Other qualifications equivalent to bachelor's degree and relevant experience recognised by the Senate.
- Candidates should pass the English paper in the Sijil Pelajaran Malaysia (SPM) or other relevant qualifications recognised by the Senate (e.g., TOEFL, IELTS, etc.).

PROGRAM MODULES

CORE
IB6113 Molecular Genetics IB6123 Instrumentation in Molecular Biology Research IB6133 Scientific Writing, Presentation & Communication Skills IB6144 Molecular Biology Techniques I IB6153 Research Methodology IB6214 Molecular Biology Techniques II IB6223 Topics in Molecular Biology IB6234 Research Project I IB6314 Research Project II
ELECTIVES (Choose 2)
IB6243 Bioinformatics in Molecular Biology IB6033 Industrial Molecular Biology IB6043 Plant Molecular Biology IB6053 Animal Molecular Biology IB6063 Molecular Microbiology

SUPPORT AND FACILITIES

Staff	Academic infrastructure
20 academic staff 20 administrative and laboratory staff	6 tutorial rooms 1 auditorium 4 postgraduate rooms
Laboratories	**Support Facilities**
Animal and Plant In Vitro Lab Biochemistry Lab Microbial Lab Genomics Lab Natural Product Lab Fermentation Lab Bioinformatics Lab Pilot Plant	Culture Rooms Plant Growth Rooms Radioactive Room Dark Room Instrumentation Lab State-of-the-art research equipments

FUTURE CAREER

- molecular biologist
- molecular product/application specialist
- quality control analyst
- lecturer
- entrepreneur in biotechnology
- molecular science communicator

CONTACT

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