

## FACULTY OF BIOSCIENCES AND MEDICAL ENGINEERING

### POSTGRADUATE RESEARCH PROGRAMMES (BIOSCIENCES)

DOCTOR OF PHILOSOPHY  
MASTERS BY RESEARCH

Major areas of research offered by the faculty are as follows:

- Bioinformatics
- Structural Biology
- Enzyme / Bioprocess / Fermentation
- Animal Biotechnology / Pharmaceutical Technology / Development Biology
- Plant Biology
- Molecular Biology / Protein Chemistry
- Nanobiotechnology
- Biochemistry / Environmental
- Biotechnology / Biosensor

For Further Information:

The Dean

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The Faculty of Biosciences and Medical Engineering is a newest faculty which acts as the 'interface' between science and engineering. It began as the Department of Biology in the year 2000 which was under the auspicious of the Faculty of Science and has been offering an undergraduate program, the Bachelor of Science (Industrial Biology) in 1997. It has since 2001, generated more than 400 graduates who have acquired jobs in a variety of sectors of the industry. As of the academic year 2005/06, the department offered another program at the baccalaureate level; the Bachelor of Science (Biology) which essentially focuses on basic life sciences.

In 2006, the university has granted the establishment of the **Faculty of Biosciences and Medical Engineering** with the endorsement of the Ministry of Higher Education. The Faculty of Biosciences and **Medical Engineering** overall mission to discover new scientific knowledge and to apply the insights gained from basic science studies to further advance biotechnology strategies.

Faculty of Biosciences and Medical Engineering currently offers postgraduate programmes that lead to the award of the Master of Science or Doctor of Philosophy degrees in areas of the biological sciences. The normal durations are 2 to 6 semesters (1 to 3 years) for the Master's programmes and 6 to 14 semesters (3 to 7 years) for the Doctor of Philosophy programmes.

Students may register for the programme by one of the modes of study offered, namely Research and mixed mode.



## ENTRY REQUIREMENTS

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#### Masters by research:

At least an upper second class Honours degree in areas related to biotechnology or Min CPA 3.0 or equivalent or bachelor of Science with CPA < 3.0 and one year working experience in areas related to Biotechnology

#### Doctor of Philosophy (PhD):

A masters degree in areas related to biotechnology or a First Class Honours degree from any institutions of higher learning recognized by the Ministry of Higher Education Malaysia, subjected to approval by the faculty involved or other qualifications equivalent to a Master's degree and experience in the relevant field.

#### International Student's requirements:

TOEFL - minimum score: 550 or

IELTS - minimum score : band 6

## INTRODUCTION

Our strength in research has led us to undertake strategic and cutting-edge research in areas of fundamental and applied molecular biology, gene therapy, bioinformatics, microbial biotransformation, fermentation, enzyme technology and environmental biotechnology. We strive to accomplish high quality research and persistently seek new ways of improving the quality of our research findings besides developing extensive networking and linkages with national and international research centres

Postgraduate research in the faculty is supported by state-of-the-art facilities in the area of biological, chemical and environmental sciences, providing valuable hands-on experience with the latest equipment and techniques to students. Computing facilities include access to a wide range of online scientific journals

## PROGRAMME SUMMARY

### ASSESSMENT:

MSc & PhD: Written and oral assessment to aid general progress. Submission of a thesis for both MSc and PhD. Candidates are also required to have an oral examination ( viva-voce).

### AWARD REQUIREMENT:

Students should pass the oral examination (viva-voce) as well as submit a written thesis

### JOB PROSPECTS:

Graduates of the programme can work as:

Research scientist  
Academician (Tutor, lecturer, teacher)  
Biotechnologist  
Microbiologist  
Quality control / Assurance officer  
Product specialist  
Sales executive for biotech products  
Environmental safety officer

