



**MAHSA**  
UNIVERSITY

# **BACHELOR OF BIOMEDICAL SCIENCES (HONOURS)**

**OPEN DISTANCE LEARNING**

KPT/JPS (N-DL/0910/6/0005) (MQA/FA 11673) 05/26

## **FACULTY OF PHARMACY AND BIOMEDICAL SCIENCES**

Evolution lies at the heart of biology. It is seamlessly and continuously linked to health research to better understand such conditions as AIDS or bird flu or Parkinson's or cancer or heart disease. Every biomedical experiment, every tiny advance, every major breakthrough ultimately connects to the principles first postulated by Darwin.

**HUNTINGTON WILLARD**

# PROGRAMME OVERVIEW

This programme focuses on how cells, organs and systems function in the human body; an exciting and dynamic area that is highly relevant to the understanding and treatment of human diseases. As long as new strains of diseases emerge, causing a detrimental effect on the health of our communities, biomedical science will play an important role in healthcare delivery. Correct diagnosis of disease is imperative. Patients' lives rely greatly on the results of clinical laboratory investigations conducted by capable biomedical scientists. As such, biomedical science is a profession that will continue to expand, especially in Malaysia where there has been rapid growth in the healthcare system.

Modes of delivery include asynchronous e-learning (online learning materials), synchronous e-learning (online teaching), face-to-face lectures and tutorials, and practical sessions (at the learning centers).

# AIMS & OBJECTIVES

The aim of this course is to assist students in a structured way to orientate and train themselves in areas of selected professional interest. The purpose is to provide fundamental knowledge to build skills needed for successful career achievement. This objective seeks to make the graduate employable and trainable. Another objective is to train students in laboratory skills such as planning of experiments, data acquisition, and management and analysis to a selected research problem.

# DURATION

- 4 years
- Diploma in Medical Laboratory Technology entry 3 years (year 1 exempted)

# INTAKE

2 intakes a year (April & September)

# ENTRY REQUIREMENTS

- Pass STPM/Matriculation/Pre-University or equivalent qualification with a minimum GPA of 2.33 in 2 of the following subjects: Biology/Physics or Mathematics/Chemistry
- A-Levels or equivalent qualification with a minimum of Grade D in 2 of the following subjects: Biology/Physics or Mathematics/Chemistry
- A recognised Diploma with a minimum a CGPA of 2.75 in related field
- A recognised Diploma with a CGPA of less than 2.75 in related field and a minimum of 3 years (36 months) working experience in the related field
- **South Australian Matriculation (SAM):** Score 14 in 3 subjects including Chemistry & Mathematics & Biology/Physics)
- **New Zealand Bursary:** Aggregate 65% for 3 subjects including Chemistry & Mathematics & Biology/Physics
- **Canadian Pre-University (CPU)/Canadian International Matriculation Programme (CIMP)/Monash University Foundation Pre-University Programme (MUFY)/Western Australian Curriculum Council/Trinity College Foundation Studies/Higher School Certificate - Sydney Australia:** Aggregate 60% for 3 Science subjects including Chemistry & Mathematics & Biology/Physics
- **University of New South Wales Foundation:** Pass with 3 Principal D for 3 subjects including Mathematics & Chemistry & Biology / Physics
- **Indian Pre-University:** 75% aggregate for 3 subjects including Chemistry & Mathematics & Biology/Physics
- **American High School Diploma with Advanced Placement (AP):** CGPA 2.60 for 3 subjects including Chemistry & Mathematics & Biology/Physics
- **English Proficiency:** Malaysian candidates: MUET Band 3 or IELTS (5.5)/TOEFL (550)
- **International candidates:** IELTS (5.5)/TOEFL (550) paper-based or equivalent

# PROGRAMME STRUCTURE

## Semester 1 (Year 1)

Basic Biostatistics  
 Laboratory Science & Instrumentation I  
 English for Academic purpose  
 TITAS (Tamadun Islam Dan Asia) – for national students  
 Malaysian studies 3 - for international students  
 Biochemistry & Genetics  
 Basic Haematology  
 Medical Parasitology & Entomology  
 Human Biochemistry

## Semester 2 (Year 1)

Basic Pathology  
 Hubungan Etnik - for national students  
 Bahasa Melayu Komunikasi 2 - for international students  
 Basic Immunology  
 Basic Microbiology  
 English for Academic writing  
 Laboratory Science & Instrumentation II  
 Cytology  
 Basic Pharmacology  
 Psychology & Behavioural Sciences

## Semester 1 (Year 2)

Laboratory Management  
 Clinical Biochemistry I  
 Human Anatomy & Physiology I  
 Medical Microbiology  
 Health Informatics  
 Molecular Biology Techniques  
 Youth Development (MPU3)

## Semester 2 (Year 2)

Clinical Biochemistry II  
 Human Anatomy & Physiology II  
 Toxicology  
 Transfusion Science & Blood Banking  
 Human Genetics  
 Epidemiology  
 Environmental Microbiology  
 Principles of Laboratory animal sciences

## Semester 1 (Year 3)

Advanced Immunology  
 Entrepreneurship (MPU2)  
 Advanced Pathology & Cytology  
 Advanced Haematology  
 Clinical Microbiology  
 Self Study Review in Medical Microbiology  
 Self Study Review in Chemical Pathology

## Semester 2 (Year 3)

Biomedical Practicum

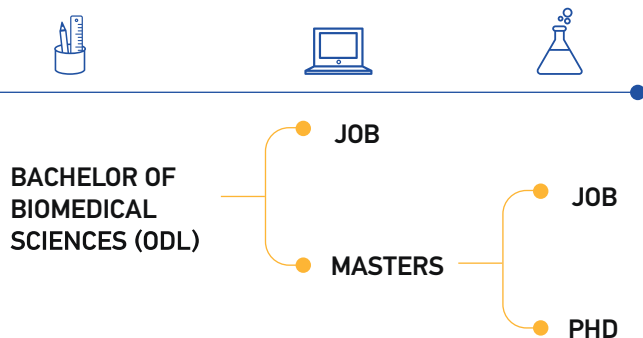
## Semester 1 (Year 4)

Intellectual Property, Bioethics, Biosafety & Biosecurity  
 Special Topics in Biomedical Sciences  
 Community Service  
 Research Methodology  
 Food Microbiology  
 Metabolic Disorders

## Semester 2 (Year 4)

Research Project  
 Case Study & Problem Solving  
 Personal & Professional Development

# PROGRESSION PATHWAY



# CAREER OPPORTUNITIES

- BIOMEDICAL SCIENTIST
- FORENSIC SCIENTIST
- HEALTHCARE SCIENTIST, CLINICAL BIOCHEMIST
- HEALTHCARE SCIENTIST, GENETICIST
- HEALTHCARE SCIENTIST, HAEMATOLOGIST
- MEDICINAL CHEMIST
- MICROBIOLOGIST
- PHYSICIAN ASSOCIATE
- RESEARCH SCIENTIST (Medical)
- TOXICOLOGIST

The Habitat



Library



Computer Lab



Dental Simulation Clinic



Anatomy Digital Lab



Operation Theatre



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