

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

**OPEN DISTANCE LEARNING**

KPT/JPS (N-DL/725/6/0101)(MQA/PA 11673) 05/26

## **FACULTY OF MEDICINE, BIOSCIENCE & NURSING**

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 & tutorials and practical sessions (At the learning Centers).

## AIMS & OBJECTIVES

The aim of this course is to assist students, in a structured way, in orienting and training 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 also to train students in laboratory skills such as planning of experiments, data acquisition, 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 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 and 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 and Instrumentation II  
Cytology  
Basic Pharmacology  
Psychology & Behavioural Sciences

## Semester 1 (Year 2)

Laboratory Management  
Clinical Biochemistry I  
Human Anatomy and 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

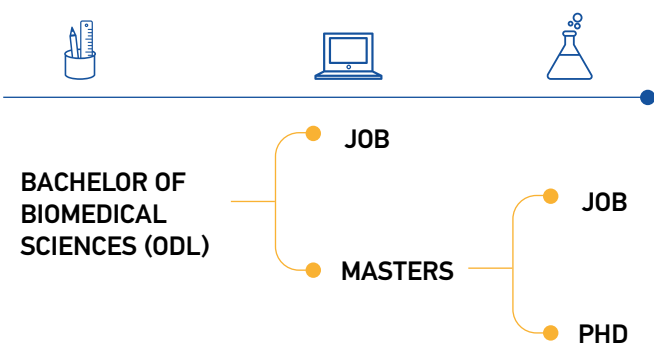
## Semester 1 (Year 4)

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

## Semester 2 (Year 4)

Research Project  
Case Study and 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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