

BIOMEDICAL SCIENCE



INTERNATIONAL MEDICAL UNIVERSITY
MALAYSIA



**SCHOOL OF
HEALTH SCIENCES
2023**

What is IMU's Biomedical Science Programme About?



IMU Biomedical Science students build their competence in laboratory skills via ample hands-on opportunities during practical sessions, guided by academic staff.

OVERVIEW

For the Biomedical Science programme, students have the option to complete the entire 3-year programme in IMU or study part of the programme in IMU and transfer to one of the University's partners in Australia, New Zealand and the United Kingdom. Through this arrangement with the partner universities, IMU students wishing to move on to one of these universities will receive academic credits for the subjects they have successfully completed in IMU and use these towards the completion of their degree.

In addition to didactic large group teaching sessions (plenaries), the programme is also delivered through small group teaching sessions (problem-based learning, laboratory practicals, workshops, computer-aided learning, tutorials, seminars, presentations and attachments/placements). Such small group teaching sessions will provide opportunities for the development of a range of skills necessary for the biomedical scientist. The projects in Semester 5 provide an opportunity for students to conduct studies in the field of biomedical science and it is hoped that students will acquire critical thinking and analytical skills necessary for postgraduate training later.

Students will be exposed to 26 weeks of industrial placement mainly with biomedical laboratories which includes Pantai Premier Pathology Sdn Bhd, and BP Healthcare, in addition to fundamental and diagnostic research in universities and industries within Malaysia and world-wide.

DEGREE / DURATION

Bachelor of Science (Hons) in Biomedical Science (IMU)
– 3 years

Degree from partner universities – 3 - 4 years



This programme is accredited by the Institute of Biomedical Science (IBMS)

COMMENCEMENT

July and September

PARTNER UNIVERSITIES

AUSTRALIA



UNITED KINGDOM



NEW ZEALAND



A Word from the IMU Biomedical Science Programme Director and Executive Head of Education, Institute of Biomedical Science (UK)

“IMU’s Biomedical Science programme aims to produce work-ready graduates well-equipped with knowledge and are competent in practical, as well as soft skills. The programme enables the students to acquire current knowledge in the field, promotes their analytical and critical thinking and sharpens their communication skills. Besides, the students gain ample invaluable experiences through participation and organisation of various educational activities. The curriculum prepares the students well to serve in the profession, enabling our graduates to be highly sought after both locally or internationally.”

DR TSEN MIN TZE

Lecturer and Programme Director
BSc (Mal), MSc (Mal), PhD (Mal)

“The Institute of Biomedical Science (IBMS) is dedicated to the promotion, development and delivery of excellence in biomedical science. We support our members through training, education and professional development, setting quality standards and supporting our profession.”

ALAN C. WAINWRIGHT

Executive Head of Education, Institute of Biomedical Science (IBMS)
BA, CertMHS, CSci, FIMLS

How Does the Programme Work?



Teamwork and communication skills are fostered throughout the programme through many collaborative activities.

PROGRAMME STRUCTURE

MPU SHORT SEMESTER	SEMESTER 1	SEMESTER 2	SEMESTER 3
MPU1 (2 compulsory modules) Penghayatan Etika and Peradaban Philosophy and Current Issues OR Philosophy and Current Issues Bahasa Melayu Komunikasi 2 MPU2 (English for Health Sciences) MPU3 (Choose 1 below) History of Health Professionals Science Fiction, Fantasy, Horror Survey of Asian Literature Introduction to Media Literacy	Principles of Biology and Genetics General Biochemistry Laboratory Instrumentation and Management Anatomy and Physiology General Pathology Statistics for Biomedical Scientists	Cardiovascular and Respiratory Systems General Pharmacology Haematology and Transfusion Science Microbiology Metabolic Biochemistry Medical Epidemiology and Public Health	Musculoskeletal and Central Nervous Systems Molecular Biology and Biotechnology Management and Experimentation on Animals Histopathology and Cytopathology Biomedical Informatics MPU4 Selective
SEMESTER 4	SEMESTER 5	SEMESTER 6	SHORT SEMESTER
Immunology Clinical Biochemistry Parasitology and Entomology Gastrointestinal and Renal Systems Genomics and Molecular Diagnostics Fundamentals of Entrepreneurship Research Methodology	Reproductive and Endocrine Systems Biomedical Toxicology Forensic Science and Pathology Current Trends in Biomedical Science Research Project Professional Practice for Biomedical Scientists	Practical Attachment - The Apprentice (Diagnostic Laboratory)	Practical Attachment - The Apprentice (Industry)

The curriculum is reviewed periodically and is subject to change.

The MPU modules are compulsory modules imposed by Ministry of Higher Education under the Private Higher Educational Institutions Act 1996 (Act 555). All students must take these modules and pass as a prerequisite for the award of the degree.

How Does the Programme Work?

ASSESSMENT

Students will be assessed through their class tests, practical reports, workshops, portfolios, projects, logbooks, written reports, presentations, dissertations and end-of-semester examinations.

RECOGNITION OF DEGREE

IMU's Biomedical Science students have made significant achievements in their academic portfolio. A notable recognition being the positive feedback from external supervisors on the performance of IMU's Semester 6 students who interned in Singapore, United Kingdom, Australia, China, Canada, New Zealand and Taiwan through the Student Mobility Programme under IMU's ASPIRE initiative. Such positive feedback reinforces IMU's reputation of its graduates' quality.

CAREER PATHWAY

The Biomedical Science programme emphasises on clinical laboratory skills and human organ systems. It is a career that is in demand especially in the areas of clinical pathology laboratories, food industries and biomedical research.

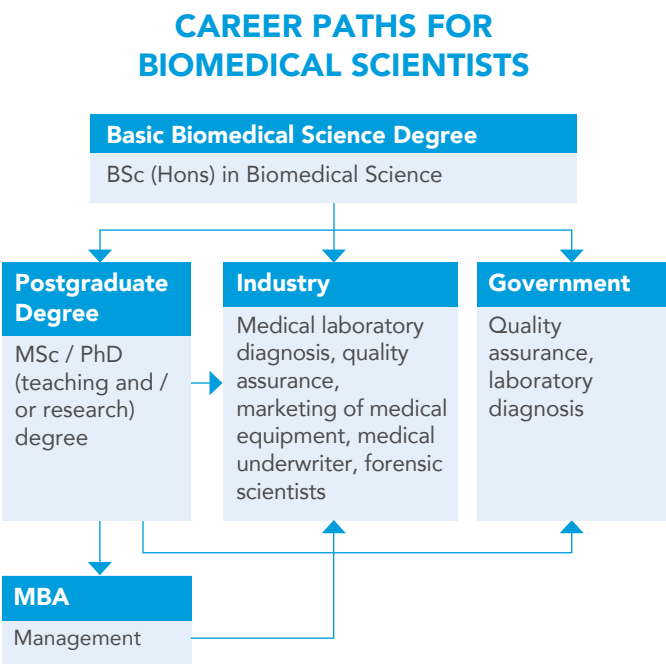
Biomedical scientists are valued members of any healthcare team. Their nature of work includes performing chemical analysis of blood and other body fluids to detect diseases, diagnose illnesses and evaluate effectiveness of treatments. Biomedical scientists can take up careers in forensic medicine, education, management and scientific journalism.

Medical, veterinary and agricultural research in universities and research/healthcare institutions are also areas in which biomedical scientists are needed. Industries in pharmaceuticals, biotechnology, chemicals, and cosmetics and toiletries also employ biomedical scientists for research and development.

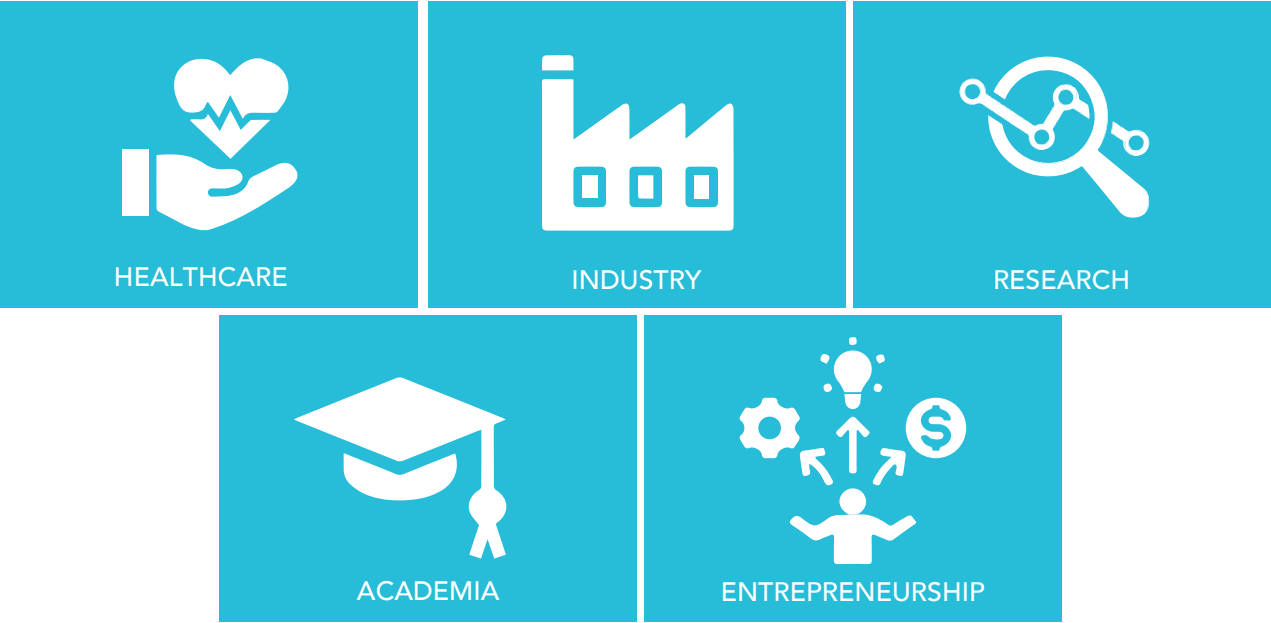
Biomedical Science graduates can undertake postgraduate degrees in any of the related disciplines. They could also pursue a career in education. The Biomedical Science degree can also be used as graduate entry path into medicine.

Many of our graduates have secured research assistant positions in public and private universities nationwide, including UPM, UM, NUS, LEEDS, CARIF and IMU.

How Does the Programme Work?



A GLANCE OF BIOMEDICAL SCIENTISTS WORK SCOPE



How Does the Programme Work?

AREAS AND SCOPE OF WORK OF MEDICAL BIOTECHNOLOGISTS

KEY AREA	OCCUPATION	WORKSCOPE
Healthcare Public & private hospital laboratories, public health laboratories, private pathological laboratories, forensic, fertility centre	Clinical laboratory scientist Embryologist	<ul style="list-style-type: none">• Analysis of clinical specimens such as body fluids and blood• Isolation and analysis of microbiology samples• Matching blood of donors to recipients to ensure compatibility• Crime-solving• Perform in vitro fertilisation and genetic testing at fertility centre
Research Universities, research/health institutions	Principal investigator Research scientist Research assistant	<ul style="list-style-type: none">• Medical/health, biotechnology, veterinary and agricultural research
Industry Pharmaceutical, biotechnology, chemicals, cosmetics and toiletries companies, insurance industry	Research scientist Quality control officer Product specialist Application specialist Sales and marketing Business manager Clinical research associate Insurance claim assessor Insurance underwriter	<ul style="list-style-type: none">• Research and development of new products• Giving product presentation, assist in product installation and provide product application training• Develop and implement sales and marketing strategies• Plan, coordinate and oversee the conduct of clinical trials• Conduct medical claim assessment, review application for insurance coverage

Learn from Our Experienced Lecturers



DR KOH RHUN YIAN

Senior Lecturer
BSc (Mal), PhD (Mal)

Dr Koh Rhun Yian is a senior lecturer of the Division of Applied Biomedical Science, International Medical University. She obtained her BSc Biomedical Science (Hons) and PhD (Immunobiology) degrees at the University Putra Malaysia. She is actively working on research projects related to neuroscience and natural products. She has received multiple national and internal research grants for the past few years, and published more than 80 articles in local and international journals. She has also presented her research findings in multiple conferences. She worked as research assistant at Michigan State University, USA before joining IMU. She is currently a member of the Malaysian Biomedical Science Association.



A/PROF CHYE SOI MOI

Associate Professor
BSc (Taiwan), MSc (Taiwan),
PhD (Taiwan)

A/Prof Chye Soi Moi completed her PhD degree at Kaohsiung Medical University. Her academic career started at Fooyin University, Taiwan. After eight years of working and gaining experience at the University, she came back to Malaysia and joined Universiti Tunku Abdul Rahman in 2006 and IMU in 2008. Her research interest is in investigating the apoptosis and carcinogenicity pathways of hair dye components. Recently, she has also expanded her research interest to neuroscience particularly in developing a new disease-modifying drug to cure or delay Alzheimer's disease progression. With her passion in biomedical research, A/Prof Chye Soi Moi has also secured numerous research grants either as a principal investigator or co-investigator and has published in many high impact factor journals.

Learn from Our Experienced Lecturers



DR ANIL PHILIP KUNNATH

Senior Lecturer
BSc (India), MSc (India), PhD (Mal),
FIBMS (UK)

Dr Anil Philip Kunnath is an experienced academician with 16 years of teaching experience in the biomedical science field. His academic career started at Manipal University, India, and after five years of work experience, he came to Malaysia and joined the IMU in 2009. He is the recipient of a Fellowship from Institute of Biomedical Science (IBMS, UK). His research interests include gene silencing and cancer, marine products in drug discovery and diabetes. He has published his research findings in several peer-reviewed local and international journals. Dr Anil had been invited as an Advisory Member of international conferences. He has presented papers in several local and international conferences as plenary and invited speaker.



DR LIM CHOOI LING

Senior Lecturer
BSc (Mal), PhD (Mal)

Dr Lim Chooi Ling obtained her BSc Biomedical Science (Hons) and PhD (Immunobiology) degrees at the University Putra Malaysia. A recipient of the National Science Fellowship Scholarship, she was attached with the Mount Sinai School of Medicine, New York (USA) during her postgraduate study. She has published in several local and international journals and presented in more than 10 international conferences, receiving best oral presenter awards in a select few. She has supervised more than 26 undergraduate and postgraduate research students to date. She is also the secretary of the Malaysian Biomedical Science Association (MyBiomed), organising committee member of several international Biomedical and Medical Education conferences, and is active in mentoring, facilitation, teaching, and academic administrative duties at her university. She is currently a Senior Lecturer and Head of the Applied Biomedical Science and Biotechnology Division at the International Medical University.

Why Study Biomedical Science at IMU?

1

An Established Private Healthcare University

IMU is Malaysia's first and most established private medical and healthcare university with over 30 years of dedicated focus in healthcare education. IMU achieved the SETARA-2018/2019 Tier 6 status (Outstanding) under the Mature University category.

2

Build Your Future Healthcare Professional Network

As IMU offers the widest range of healthcare programmes, our students are fully immersed in a vibrant community of students and practitioners from all healthcare fields. This allows for the development of strong friendship amongst peers that will be the foundation of an extensive healthcare professional network upon graduation.

3

Curriculum Benchmarked to International Standards

IMU's Biomedical Science curriculum has been developed to meet high international standards and is accepted by University of Newcastle, Australia, University of Otago, New Zealand and University of Strathclyde, Scotland, for credit transfer into their medical laboratory science and biomedical science programmes.

4

Better Exposure to Practical Training

Students will have many hours of hands-on practical sessions where every student has the opportunity to hone his/her skills in the microbiology lab, pathology lab, etc. This will be an advantage to the students in their future careers.

5

Better Preparation to be a Biomedical Scientist

With exposure to industrial attachment and research, students will be better prepared to be a competent biomedical scientist, upon graduation.

6

Accredited by the Institute of Biomedical Science in UK

The IMU Biomedical Science programme has been accredited by the prestigious Institute of Biomedical Science (IBMS), UK. Getting an IBMS-accredited Biomedical Science honours degree from the IMU will give you all the necessary scientific knowledge, skills and training to begin a career in biomedical science and be eligible for registration with the Health and Care Professions Council (HCPC) in the UK.

What Our Students Say



“The Biomedical Science programme in IMU has given me so much exposure in both research and diagnostic laboratories, making it easier for me to choose the direction I want to pursue. Throughout my years in the Biomedical Science programme, I have not only gained laboratory skills, but the soft skills and leadership skills I have gotten have been very useful upon embarking into work life. I truly believe that the next chapters of my life, including postgraduate opportunities, have been made easier being an IMU graduate. The dedication of my lecturers has definitely inspired me to become an academician, with the aim of sharing my knowledge and experiences in the future. Thank you, IMU.”

Thiviya, Alumna (Chairperson, 11th MySymBios 2021)

“The IMU Biomedical Science programme provides a well-planned and accredited curriculum with comprehensive lectures, problem-based learning and laboratory practical training. The lecturers are kind, motivating, and ever so willing to offer help and support to the students at any time. Despite the course being taught online due to the pandemic, the lecturers had placed their best effort to modify their teaching methods to ensure the students had maximum absorbance of information, and to ensure our learning journey was both a memorable and enjoyable one. In addition, the IMU Biomedical Science programme also offers various career development and graduate preparedness workshops to equip us with essential skills and allow us to have a better grasp of the seemingly foreign and unknown working society. In short, throughout my learning journey in IMU as a Biomedical Science student, I have not merely learnt the basic scientific knowledge and laboratory work, but have also built up my leadership and self-development skills by joining the IMU Society of Biomedical Science (ISBS).”

Foong Le Hui, Alumna (President, ISBS)



“Being a Biomedical Science student was not my first choice. At first, I was hesitant to pursue a career in Biomedical Science. Choosing to study this course at IMU changed my life and taught me how diverse the field is. To be honest, the Biomedical Science lecturers are such sweethearts who assisted me in every way. I'd like to take this opportunity to thank all my lovely lecturers who are always so friendly and helpful. Personally, I believe that it is not only crucial to study in the course you desire, but that the institution also plays an important part in giving high-quality education.”

Azlina Binti Abdul Salam, Alumna (President, IMU SRC)



“From my experience, many people will think that pursuing Biomedical Science would mean that we would be constantly spending our time going through endless amount of information. However, coming to pursue my studies in IMU has truly helped broaden my horizon through the many opportunities given to hone our hands on techniques via lab practical sessions. Ranging from conducting simple biochemistry tests to operating a microtome for tissue sectioning, this programme really exposes us to a diverse set of laboratory skills that is essential in preparing us to excel in our future career.”

Mervyn Lim Chen Xi, Student (Secretary, BM Day 2022)



CONTACT US

✉ start@imu.edu.my

☎ +603 2727 7515

🌐 www.imu.edu.my

f InternationalMedicalUniversity

🐦 IMUMalaysia

PROGRAMMES AT IMU

Pre-University

Foundation in Science

KPT/JPT(R/010/3/0186)09/2023
MQA/FA3974

Undergraduate

Biomedical Science

KPT/JPT(R/421/6/0011)12/2027
MQA/A8230

Chinese Medicine

KPT/JPT(R/721/6/0059)01/2027
MQA/A10260

Chiropractic

KPT/JPT(R/726/6/0054)08/2026
MQA/A9294

Dentistry

KPT/JPT(R/3/724/6/0010)01/2030
MQA/FA7026

Dietetics with Nutrition

KPT/JPT(R/726/6/0021)09/2029
MQA/A8176

Digital Health

KPT/JPT(N/482/6/0209)03/2028
MQA/PSA14380

Medical Biotechnology

KPT/JPT(R/2/545/6/0014)09/2027
MQA/FA15505

Medicine

KPT/JPT(R/2/721/6/0033)09/2026
MQA/FA6155

Nutrition

KPT/JPT(R/726/6/0011)06/2027
MQA/FA1298

Nursing

KPT/JPT(R/723/6/0125)04/2027
MQA/FA8944

Pharmaceutical Chemistry

KPT/JPT(R/3/442/6/0003)01/2028
MQA/A8229

Pharmacy

KPT/JPT(R/2/727/6/0050)09/2026
MQA/FA8374

Psychology

KPT/JPT(R/3/311/6/0013)09/2027
MQA/A8177

Postgraduate

Acupuncture (MSc)

KPT/JPT(R/721/7/0071)03/2027
MQA/PA8570

Analytical & Pharmaceutical Chemistry (MSc)

KPT/JPT(R/2-CDL/442/7/0001)01/2027
KPT/JPT(N-DL/442/7/0022)02/2026
MQA/FA1191

Business Administration in Healthcare Management (PG Cert/PG Dip/Master)

KPT/JPT(N/345/7/1082)9/2023
MQA/PSA11354
KPT/JPT(N/345/7/1090)12/2023
MQA/PSA11355
KPT/JPT(N/345/7/1085)10/2023
MQA/PSA11353

Counselling (Master)

KPT/JPT(N/762/7/0046)09/2026
MQA/PA12002

Diabetes Management & Education (PG Dip)

KPT/JPT(R/726/7/0030)01/2028
MQA/SWA9086

Endodontics (PG Dip)

KPT/JPT(N/724/7/0043)05/2024
MQA/SWA12162

Health Informatics and Analytics (PG Cert/PG Dip/Master)

KPT/JPT(N/720/7/0131)09/2025
MQA/PSA13973
KPT/JPT(N/720/7/0130)09/2025
MQA/PSA13972
KPT/JPT(N/720/7/0129)09/2025
MQA/PSA13974

Health Professions Education (PG Cert/PG Dip/Master)

KPT/JPT(R/145/7/0066)09/2025
MQA/SWA05162
KPT/JPT(R/145/7/0064)09/2025
MQA/PA5163
KPT/JPT(R/145/7/0070)09/2025
MQA/SWA5164
KPT/JPT(N-DL/145/7/0120)02/2026
MQA/SWA05162

Implant Dentistry (PG Dip)

KPT/JPT(R/724/7/0019)06/2026
MQA/SWA6111

Molecular Medicine (MSc)

KPT/JPT(R/2/545/7/0078)07/2027
MQA/FA1299
KPT/JPT(N-DL/545/7/0101)09/2025
MQA/SWA 11357

Pharmacy Practice (Master)

KPT/JPT(R/727/7/0051)03/2024
MQA/SWA02796

Prosthodontics (PG Dip)

KPT/JPT(N/724/7/0042)05/2024
MQA/PSA12163

Public Health (MSc)

KPT/JPT(R/720/7/0077)09/2025
MQA/A10261
KPT/JPT(N-DL/720/7/0118)09/2023
MQA/SWA11356

Medical & Health Sciences (MSc/PhD)

KPT/JPT(R/720/7/0049)06/2026
MQA/A10618
KPT/JPT(R/2/721/8/0043)01/2027
MQA/A3767



International Medical University

126, Jalan Jalil Perkasa 19, Bukit Jalil 57000 Kuala Lumpur, Malaysia

Tel +603 8656 7228 Fax +603 8656 1018 KP/JPS/5195/US/2, KP(JPS)/DFT/US/W03



The IMU has been certified with ISO 9001: 2015 for the provision of Pre-University, Undergraduate and Postgraduate Programmes for the Medical and Healthcare Professions.

Every effort has been made to ensure the accuracy of the information given in this brochure but it is subject to alteration without notice. The University reserves the right to alter or delete any of the information included at any time and it shall not be bound by any errors or omissions and cannot accept liability in respect thereof. Please visit www.imu.edu.my for the most up-to-date information.