

**DIGITAL
HEALTH**



**INTERNATIONAL MEDICAL UNIVERSITY
MALAYSIA**



**SCHOOL OF
MEDICINE
2023**

What is IMU's Digital Health Programme About?



Positive group project discussion promotes intellectual and social skill.

OVERVIEW

Information and Communication Technologies (ICT) have been driving a revolution in healthcare. The convergence of ICT with health, healthcare, living and society offer real opportunities to improve medical outcomes and enhance efficiency. The fast-moving digital health tools (such as wearable devices, telehealth, telemedicine and mobile health) have the potential to improve physicians and patients relationships. The tools help to accelerate the diagnostic process and permit Artificial Intelligence (AI) to be used to provide accurate treatment recommendations – such options empowering patients to be more engaged with and proactive about their health besides encouraging preventive care through an increased focus on nutrition, exercise and wellness via digital health tools help to better manage chronic conditions outside of traditional care settings.

IMU aims to equip students with essential digital health skills related to ICT and data analytics to be applied to healthcare. Students undergo a robust curriculum that involves project-based learning activities and coursework, which offer a well-grounded and theoretically-informed training for the development in digital health.

What makes this programme unique is the fact that it is delivered by a multidisciplinary team of experts from the field of computing and health sciences. Also, the programme is designed for the students from science and non-science to embark on health-related careers. The prerequisite to join the programme is to have the required pre-university qualifications together with a credit in Mathematics at the SPM level or equivalent.

DEGREE / DURATION

Bachelor in Digital Health (Hons) (IMU)
— 3 years

COMMENCEMENT

July and September

A Word from the Programme Director

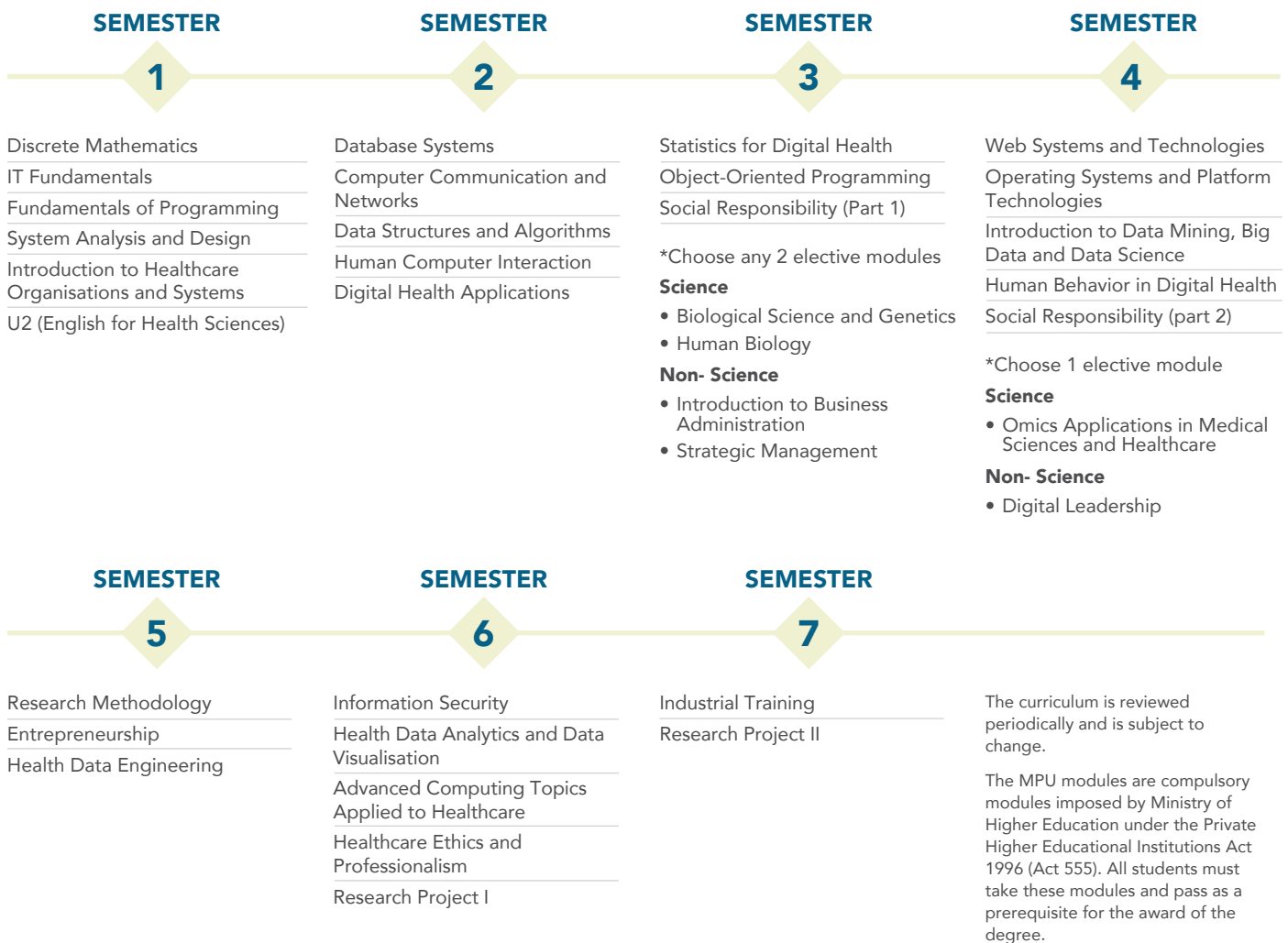
“ With the help of digital health technologies, physicians are able to access the right information at the right time, and provide timely treatment options and emergency help to the individual. The IMU Digital Health programme is the first degree in Malaysia that blends Information and Communication Technologies (ICT), Data Analytics and Healthcare components in its curriculum where our graduates will be equipped with an in-depth understanding and know-how of the healthcare field. ”

DR TAN EE XION

Senior Lecturer and Programme Director
PhD (Monash), MIT (Monash), BCS (Monash)

How Does the Programme Work?

PROGRAMME STRUCTURE



COMPONENT	SEMESTER						
	1	2	3	4	5	6	7
Information & Communication Technologies (ICT)	✓	✓	✓	✓		✓	✓
Digital Health (DH)	✓	✓		✓	✓	✓	✓
Data Analytics (DA)			✓	✓	✓	✓	✓

The table above shows the sharing of Information & Communication Technologies, Digital Health and Data Analytics components.

INTERNSHIP

Industry experience is often an essential part of applying for full-time positions.

An internship can promote professional growth and develop new skills outside the academic setting. The 20 weeks of training help students determine whether the career path is the right fit. Such experience allows them to have a strong resume, good references, and recommendations from their supervisor. In addition, it allows the students to create a professional network with the industry before they graduate.

ASSESSMENT

Quality and competency of the students are monitored and assessed via various assessment tools - such as practical, assignments, presentations, case study, project, online quizzes, dissertation and end-of-semester examination. The Digital Health programme students will undergo 20 weeks of industrial training in the digital health-related sectors in their final semester.

For the award of the Bachelor's Degree in Digital Health (Hons), the student must complete 120-credit in all core, specialisation and three elective modules.

PATHWAY AFTER STUDYING BACHELOR IN DIGITAL HEALTH PROGRAMME

After the bachelor's degree, the Digital Health programme graduates can opt to enrol into a postgraduate programme such as Master in Health Informatics and Analytics, MBA, etc., either as full-time or part-time study.

CAREER PATHWAY

The career pathway for digital health graduate range from general Information Technology, Data Science career to Digital Health data-related focused healthcare organisations. The employment opportunities are readily available in both private and public sectors.

Additional employment opportunities are also available abroad, for example in neighbouring Singapore, Australasia, Europe and the United States of America.

Graduates can also pursue postgraduate studies, either at Master or PhD level related to informatics and analytics, and data science locally or abroad.

CAREER PATHS FOR DIGITAL HEALTH

Bachelor in Digital Health (Hons)	
Postgraduate Degree	Industry
<ul style="list-style-type: none">• MSc/PhD• Health Informatics and Analytics• Data Science• Information Technology• MBA	<ul style="list-style-type: none">• General software provider companies• R&D department in medical devices/healthcare provider companies• Data Science and Analytics• Entrepreneurship

AREAS AND SCOPE OF WORK OF DIGITAL HEALTH SPECIALIST

KEY AREA	OCCUPATION	WORK SCOPE
Healthcare	<ul style="list-style-type: none"> • Health Systems & Service Designers • Health System Developer • Clinical Information Governance Manager • Clinical Information Manager • Clinical Analyst Support Officer • Digital Health Transformation Manager • Data Analytics and Forensics 	<ul style="list-style-type: none"> • Implement processes and systems to support medical record documentation • Drug tracking and tracing • Insurance fraud detection
Information and Communication Technologies	<ul style="list-style-type: none"> • Business Intelligence Analyst • Data Model Engineer • Junior Data Engineer • Systems Engineer • IT Programmer 	<ul style="list-style-type: none"> • Translate business rules into usable conceptual, logical, and physical models and database designs • Gather business data through many different ways via data mining then transform the data into insights that drive business value • Fraud detection
Data Science	<ul style="list-style-type: none"> • Health Data Analyst • Health Business Analyst • Healthcare Data Scientist • Data Scientist Executive • Data Analytics • R&D Data Engineer 	<ul style="list-style-type: none"> • Responsible for finding trends in datasets and developing algorithms to translate the raw data to useful information • Front lines, quantify the statistical reports, fix problems and reconciling data across healthcare systems, making them highly valuable to the healthcare sector
Healthcare Research	<ul style="list-style-type: none"> • Researcher 	<ul style="list-style-type: none"> • Scientist who drives new discoveries in digital health • Software innovator of medical devices
Entrepreneurship	<ul style="list-style-type: none"> • Entrepreneurs 	<ul style="list-style-type: none"> • Entrepreneurs

Learn from Our Experienced Lecturers



PROF PATRICE FRANÇOIS BOURSIER

Professor
PhD Comp Sci (UPMC),
MSc Comp Sci (UPMC),
BSc Comp Sci (UPMC)

Prof Patrice Boursier has earned his BSc, MSc and PhD in Computer Science from University Pierre et Marie Curie (now part of Paris-Sorbonne University). He received the National Accreditation for Full Professorship from the French Ministry of Higher Education and University of Paris-South (now part of Paris-Saclay University).

He has been appointed Professor in Computer Science and Health Informatics at International Medical University in February 2020, in charge of developing new programmes related to Digital Health and Health Informatics.

Prior to this, he had been a Full Professor and Head of the School of Computing at Taylor's University, and Dean of the STEM Faculty at International University of Malaya-Wales. He had previously been a Full Professor in Computer Science at La Rochelle University (France), and an Associate Professor at Paris-Saclay University.



DR YAM WAI KEAT

Senior Lecturer
PhD in Structural Bioinformatics (USM),
BSc (Hons) Bioinformatics (UM),

Dr Yam Wai Keat obtained her BSc (Hons) in Bioinformatics from Universiti Malaya and a PhD in Structural Bioinformatics from Universiti Sains Malaysia. She is currently with the Digital Health & Health Informatics team at IMU. Previously, she was the Acting Dean and Head of Education Unit in School of Data Sciences at Perdana University. Her current research interests are in Structural Bioinformatics, Digital Health and Health Informatics & Analytics. She has nurtured many postgraduate and undergraduate students, researchers and interns throughout her career as an Academic Staff. She is also a certified Trainer from the HRD Corp and European Bioinformatics Institute and actively involved in professional Bioinformatics societies in Asia Pacific.

Learn from Our Experienced Lecturers



DR TAN EE XION

Senior Lecturer and Programme Director,
Digital Health
PhD (Monash), MIT (Monash),
BCS (Monash)

Dr Tan Ee Xion received her PhD from Monash University in 2016. She has been in the academia for almost 18 years. During her tenure, she was involved in many internal and external programme audits in private institutions in Malaysia. She has also played an essential role in developing new programmes in various Information Technology programmes, including Digital Health and Health Analytics programmes. She has been working on Digital Health and Health Informatics & Analytics, Information Systems, e-Learning Teaching and Learning Assessment, as well as Social Media research. She recently embarked in computational linguistic and cognitive science research.



DR CHUAH TONG KUAN

Senior Lecturer
PhD BME (Nan. Tech),
BEng (Nan. Tech)

Dr Chuah Tong Kuan obtained his degree and PhD in Bioengineering in Nanyang Technological University in Singapore. He has been working with image processing projects since the year of 2008 covering the fields of aerospace, medical and metrology. These projects addressed the safety in aircraft, efficiency of radiologists in hospital, and challenging measurement problems.

Prior to joining IMU, he did research in A*STAR National Metrology and taught Biomedical Engineering modules in Ngee Ann Polytechnic in Singapore. During his teaching years in Singapore, he supervised student internships with established biomedical equipment companies, and facilitate student projects related to biomedical data and image management. He has experience developing engineering module relevant to microcontroller programming. He is known amongst his students for ability to engage and enable students to learn and develop skills.

Dr. Chuah's research interest is in medical data system which encompasses medical images. His vision is to employ data system to advance the medical field such as disease prevention, diagnosis treatment and management; and improving the healthcare capacity of the medical ecosystem.

Why Study Digital Health at IMU?

1

An Established Private Healthcare University

IMU is Malaysia's first and most established private medical and healthcare university with over 31 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

Be a Digital Health Professional

Digital health is recognised as one of the fastest growing economic sectors globally with the high demand for healthcare professionals in this area. The IMU Digital Health programme is the first degree in Malaysia that blends Information and Communication Technologies (ICT), Data Analytics and Healthcare components in its curriculum where our graduates will be equipped with an in-depth understanding and know-how of the healthcare field including the healthcare systems, regulations, governance and more, preparing them to be work-ready in this field.

4

Strong Industry Partnerships in Malaysia and Overseas

As Malaysia's first private medical and health sciences university, IMU has a well-established and strong industry partnerships in the field of healthcare in Malaysia and overseas. This is extended to the digital health area where IMU is bringing in industrial experts in their respective IT fields to be part of the programme's teaching force. The partnership with the digital experts in the United States and United Kingdom is part of the student's knowledge and skills development in and to expand their network for career network and professional development.

5

Innovative and Agile Curriculum in Digital Health

Digital health is one of the fastest growing economic sectors globally, hence the Digital Health curriculum is embedded with research-led teaching to deliver evidence-based knowledge and practice in the industry. Also, the curriculum structure will be updated to meet the ever-changing IT and healthcare industries' needs so that our graduates will remain work-ready and employable upon graduation.

CONTACT US

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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(R3/421/6/0011)12/2027
MQA/A8230

Chinese Medicine
KPT/JPT(R2/721/6/0059)01/2027
MQA/A10260

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

Dentistry
KPT/JPT(R3/724/6/0010)01/2030
MQA/FA7026

Dietetics with Nutrition
KPT/JPT(R2/726/6/0021)09/2029
MQA/A8176

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

Medical Biotechnology
KPT/JPT(R2/545/6/0014)09/2027
MQA/FA15505

Medicine
KPT/JPT(R2/721/6/0033)09/2026
MQA/FA6155

Nutrition
KPT/JPT(R2/726/6/0011)06/2027
MQA/FA1298

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

Pharmaceutical Chemistry
KPT/JPT(R3/442/6/0003)01/2028
MQA/A8229

Pharmacy
KPT/JPT(R2/727/6/0050)09/2026
MQA/FA8374

Psychology
KPT/JPT(R3/311/6/0013)09/2027
MQA/A8177

Postgraduate

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

Analytical & Pharmaceutical Chemistry (MSc)
KPT/JPT(R2-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(R2/545/7/0078)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(R2/720/7/0077)09/2025
MQA/A10261
KPT/JPT(N-DL/720/7/0118)09/2023
MQA/SWA11356

Medical & Health Sciences (MSc/PhD)
KPT/JPT(R2/720/7/0049)06/2026
MQA/A10618
KPT/JPT(R2/721/8/0043)01/2027
MQA/A3767



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