RCSI ✦ UCD MALAYSIA CAMPUS
RUMC
(MOHE: DULNOIO(P))

A Foreign University Branch Campus of

RCSI
UNIVERSITY
OF MEDICINE
AND HEALTH
SCIENCES

UCD DUBLIN
University College Dublin
Ireland's Global University

Unlock the Future of
MEDICAL TECHNOLOGY

BSc IN MEDICAL INFORMATICS
(N/0688/6/0001) (01/29) (MQA/PA16934)

WELCOME TO THE FUTURE OF HEALTHCARE!

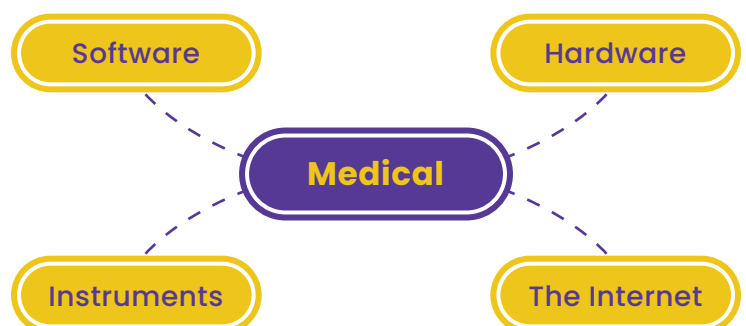## FÁILTE ROIMH THODHCHAÍ CÚRAM SLÁINTE!

RUMC is a renowned medical school that is at the forefront of healthcare education. The University's latest offering, the Bachelor of Science in Medical Informatics offers a unique pathway to revolutionise medical technology and precision medicine. The programme places a special emphasis on the intersection of technology and medicine for better healthcare management.

In this technology driven programme, students will be taught by lecturers who are industry trainers. RUMC's campus is located in Penang, Malaysia, making it ideal for learning as Penang is a MedTech hub for South East Asia. The programme, bolstered with the support of industry partners, will also include industry placements, allowing students to secure internships and possible employment upon graduating.

RUMC's links with its Irish partners provide students post-graduate opportunities in Ireland, with the MSc programme at University College Dublin, for example. Students will also have a pathway to further their studies in the field in the United States.

**Advanced medical technology is the future.
Begin your journey with RUMC.**

The Study of Medical Informatics at RUMC

Software

Hardware

Medical

Instruments

The Internet

RUMC is the Foreign University Branch Campus of the Royal College of Surgeons in Ireland (RCSI) and University College Dublin (UCD)

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RCSI & UCD MALAYSIA CAMPUS
RUMC

With over **400 years of excellence** in Irish medical education, RUMC has graduated **over 2,200 high performing, global doctors.**

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Why Choose RUMC's Medical Informatics Programme?

Focus on Medical Technologies and Precision Medicine

Dive deep into the world of advanced medical devices and technologies. Learn how to design, develop, and optimise technology that are crucial for accurate diagnosis and effective treatment.

Explore precision medicine to understand how tailored healthcare solutions can improve health outcomes by considering individual variability in genes, environment, and lifestyle.

Interdisciplinary Curriculum

The RUMC BSc in Medical Informatics curriculum integrates principles of computer science, biology, engineering, and healthcare.This provides students with a comprehensive understanding of how emerging technologies like Artificial Intelligence and 5G can be leveraged to solve complex medical problems and operational challenges in medicine.

Engage in hands-on projects and real-world applications that prepare students for immediate impact in the healthcare industry.

Exciting Career Prospect

With the continuous advancements in healthcare technology, there is a growing need for professionals who can bridge the gap between medical and technological fields.

Pursue exciting careers in hospitals, research institutions, medical device companies, and healthcare IT firms. Roles such as Hospital's Chief Technology Officer, medical informatics specialist, Hospital Technology managers, biomedical engineer, medical researchers and precision medicine analyst await students.

Focus on Security and Ethical Practices

Learn the importance of data security and privacy in the healthcare sector. The programme ensures students are equipped with the knowledge to handle sensitive medical information responsibly and ethically, whether for research or in day to day clinical operations.

Stay ahead of industry standards and regulations to ensure the integrity and confidentiality of medical data.

Strong Industry Collaboration and Expert Faculty

Benefit from RUMC's strong ties with the medical device manufacturing sector both in Penang and Dublin. Students can immerse themselves in the industry and benefit from a holistic learning experience.

Learn from esteemed faculty members who are leading experts in medical informatics and digital healthcare technologies.

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Course Structure

Year 1

Semester 1
- Foundations in Medicine
- Computer Architecture & Operating Systems
- Health Informatics Fundamentals
- Programming Fundamentals
- Technical Writing

Semester 2
- System Analysis & Design
- Health Databases & Data Management
- Exploring Artificial Intelligence in Health
- Mobile OS & Programming
- Communication Skills

Short Semester
- Appreciation of Ethics & Civilisations
- Philosophy & Current Issues
- Bahasa Melayu Komunikasi 2
- Bahasa Kebangsaan A
- Critical Thinking

Year 2

Semester 3
- Electronic Health Records
- Healthcare Technology Management
- Advanced Programming
- Data Science & Analytics
- Elective

Semester 4
- Medical Internet of Things
- Medical coding standards
- Fundamentals of Medical Imaging
- Elective
- Elective

Short Semester
- Professionalism & Ethics in Healthcare
- Khidmat Masyarakat & Ko Kurikulum

Year 3

Semester 5
- Internet & Networking
- Health Data Visualisation
- Computer Security & Data Privacy
- Research Methodology
- Elective

Semester 6
- Internship
- Undergraduate Project

Electives Unit

a. Healthcare Economic
b. Special Topics in Health Informatics
c. Innovation & Entrepreneurship
d. Advance Artificial Intelligent (AI)
e. Minor Project in Health Informatics
f. Future Internet and 5G
g. International Electives

Understand how emerging technologies can solve complex medical problems and operational challenges in medicine.

Entry Requirements

Pathway	Requirement
STPM	✔ Pass with a minimum Grade of C (GP 2.00) in any TWO (2) subjects AND Credit in Mathematics at SPM level or its equivalent.
A-Level	✔ CDD with Mathematics at SPM level or its equivalent.
International Baccalaureate (IB)	✔ 24 Points total, with a minimum score of 4 in all subjects, including Mathematics at SPM level or its equivalent.
Unified Examination Certificate (UEC)	✔ Grade B in 5 subjects, including English and Mathematics at SPM level or its equivalent.
Matriculation / Foundation Studies	✔ Pass with a minimum GCPA of 2.00 AND Credit in Mathematics at SPM level or its equivalent.

[1] Candidates with a pass in Mathematics in SPM or/equivalent can join the programme, provided that the candidate has taken Mathematics at Foundation/Matriculation level. This will be reviewed on a case-by-case basis.

English Language Proficiency	
MUET	✔ Band score of 3
CEFR	✔ High B1
IELTS	✔ Overall band score of 5.0

Fees

Malaysian Students:
MYR 93,000
for 3 years (RM 15,500 per semester)

International Students:
MYR 102,000
for 3 years (RM 17,000 per semester)

Inaugural Intake Special Bursaries

- 20% off on First Year Fees – available for first 15 successful enrolments
- RM5,000 or 1x MacBook Air - available for next 5 successful enrolments

i *Medical Informatics bridges the gap between medical and technological fields.*

Over 400 Years of Excellence
in Irish Medical Education

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4 Jalan Sepoy Lines, 10450 George Town, Penang, Malaysia.

📞 +604 – 217 1999   ✉ enquiry@rumc.edu.my

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