



RCSI + UCD MALAYSIA CAMPUS

RUMC

(MOHE: DULNOIO(P))

A Foreign University Branch Campus of



University College Dublin
Ireland's Global University

Unlock the Future of Medical Technology

Bachelor of Science 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.**

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



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.

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

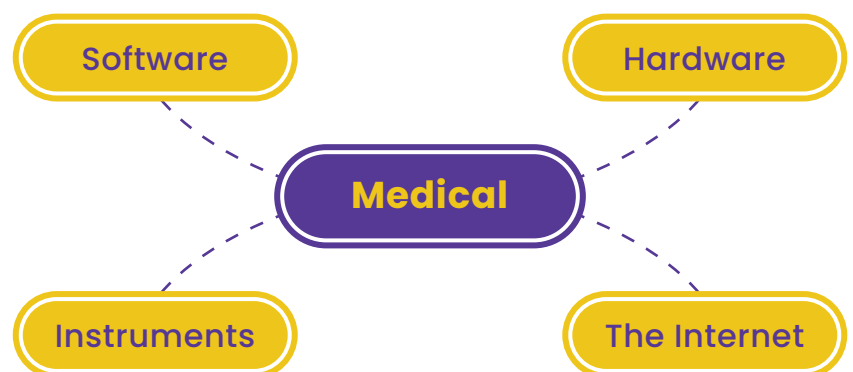
Semester 5

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

Semester 6

- ✓ Internship
- ✓ Undergraduate Project

The Study of Medical Informatics at RUMC



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

Entry Requirements

Pathway	Requirement
RUMC FIS	<ul style="list-style-type: none"> ✓ Pass with a minimum CGPA of 2.00. AND Credit in Mathematics at SPM level or its equivalent¹.
STPM	<ul style="list-style-type: none"> ✓ Pass with a minimum Grade of C (GP 2.00) in any TWO (2) subjects. AND Credit in Mathematics at SPM level or its equivalent¹.
STAM	<ul style="list-style-type: none"> ✓ Pass with a minimum Grade of Jayyid in any TWO (2) subjects. AND Credit in Mathematics at SPM level or its equivalent¹.
Matriculation / Foundation Studies	<ul style="list-style-type: none"> ✓ Pass with a minimum CGPA of 2.00. AND Credit in Mathematics at SPM level or its equivalent¹.
Diploma (Level 4, MQF) in Non-Computing	<ul style="list-style-type: none"> ✓ Minimum CGPA of 2.75**. AND Credit in Mathematics at SPM level or its equivalent¹.
Diploma in Computing fields (Level 4, MQF) or equivalent	<ul style="list-style-type: none"> ✓ Minimum CGPA of 2.50##.
Diploma Kemahiran Malaysia (DKM) / Diploma Vokasional Malaysia (DVM) in Computing fields	<ul style="list-style-type: none"> ✓ Minimum CGPA of 2.50 subjected to Senate / Academic Board's approval.
Diploma Lanjutan Kemahiran Malaysia (DLKM) in Computing fields	<ul style="list-style-type: none"> ✓ Minimum CGPA of 2.50 subjected to Senate / Academic Board's approval.

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.

* Students with CGPA 2.00-2.49 may apply to the programme and admission will be considered on a case-to-case basis.

** Candidates with a CGPA below 2.75 but more than 2.50 can be admitted subject to a rigorous assessment.

Candidates with CGPA below 2.50 but more than 2.00 may be admitted subject to a rigorous assessment.

English Language Proficiency

MUET	<ul style="list-style-type: none"> ✓ Minimum of Band 3.5
CEFR	<ul style="list-style-type: none"> ✓ High B1

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)

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

Over 400 Years of Excellence in Irish Medical Education



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Penang Medical College Sdn. Bhd. (265542-K)