NUS National University of Singapore

Yong Loo Lin School of Medicine



MASTER OF SCIENCE IN BIOMEDICAL INFORMATICS

Driving Innovation and Enhancing Healthcare through Data Analytics & Management

WELCOME TO THE MASTER OF SCIENCE IN BIOMEDICAL INFORMATICS

Biomedical Informatics is transforming the way healthcare is delivered. This programme was created in response to these shifts, equipping future leaders with tools to navigate and drive healthcare transformation.

At its core, the MSc in BMI blends rigorous training in data science and informatics with real-world clinical relevance. Students are exposed to cutting-edge topics like natural language processing, machine learning, and digital health systems. Close ties to NUS Computing, SSHSPH, and the NUS-ISS allow rich interdisciplinary teaching and access to top academic minds in Asia.

Our unique position as an academic medical centre gives us a distinct advantage. Students will be taught by renowned clinicians and researchers, gaining unparalleled access to a network of savvy healthcare professionals.

We aim to empower the next generation in pioneering research breakthroughs and establish Singapore as an innovation hub, delivering a new era of higher quality, data-driven, and personalised healthcare.

Join us and be a part of this dynamic and impactful journey.



Adjunct Professor Ngiam Kee Yuan

Head, Department of Biomedical Informatics,
NUS Yong Loo Lin School of Medicine

Head, Artificial Intelligence Office, NUHS

Head & Senior Consultant,
Division of General Surgery
(Endocrine & Thyroid Surgery),
Department of Surgery, NUH

PROGRAMME AT A GLANCE

The Master of Science in Biomedical Informatics (MSc in BMI) at the NUS Yong Loo Lin School of Medicine is a coursework-based programme designed to equip you with essential skills to lead and innovate in today's digital healthcare landscape.

You may choose to specialise in Analytics, focusing on evaluating clinical decision support systems and leading strategic innovations, or Hospital Management, with emphasis on implementing public health policies and evidence-based care.

Through an integrative curriculum and expert-led teaching, you will build key skills in machine learning, data visualisation, large language models, and healthcare innovation.

With access to real healthcare data and opportunities to collaborate with international industry partners, you'll be prepared for an impactful career in healthcare analytics, informatics, and biomedical technology.



Lead Digital Healthcare Transformation

Build future-ready capabilities in data visualisation, machine learning, large language models, and healthcare analytics. Drive innovation and stay ahead in the evolving biomedical landscape.

Learn Across Disciplines from Experts

Gain insights from faculty across NUS Medicine, NUS School of Computing (NUS Computing), Saw Swee Hock School of Public Health (SSHSPH), and the NUS-ISS. Benefit from an integrated learning approach.

Solve Real-World Health Challenges

Use desensitised, real-time data from institutional healthcare settings and apply the knowledge to meaningful clinical applications, making a tangible impact.

Gain Invaluable Industry Experience

Collaborate with global companies on internships and capstone projects. Deepen your expertise and apply your skills in real healthcare environments.

Internationally Recognised Master's Degree

Receive a world-class education at Asia's leading medical school. Pursue advanced medical training to shape and transform global healthcare.



STUDY MODE

Full-time 1 year

Part-time 2 years

TUITION FEES

For AY2027/2028:

S$70,595 (incl. GST)

PROGRAMME STRUCTURE

Core Courses	Specialisation	
	Analytics	**Hospital Management**
Complete 5 core courses BMI5101 Advanced Biomedical Informatics BMI5111 Capstone Project BMI5207 Medical Data and Data Processing BMI5306 Advanced Agile Project Management IT5001X Software Development Fundamentals	**Choose and complete 5 elective courses**	
20 units in total	**20 units in total**	
Total: 40 Units To Graduate		

Explore the programme curriculum, study plan, and other details on our programme webpage.

CORE COURSES

BMI5101 **Advanced Biomedical Informatics**	▸ Understand acquisition, storage, and use of biomedical data ▸ Explore computing concepts, ethics considerations, and legal frameworks ▸ Apply informatics principles to health and biomedical contexts
BMI5111 **Capstone Project**	▸ Extract insights from real-world healthcare data ▸ Demonstrate application of data analytics and AI concepts ▸ Develop a healthcare data product
BMI5207 **Medical Data and Data Processing**	▸ Learn SNOMED, HL7, OMOP, and international medical standards ▸ Understand healthcare databases and data processing workflows ▸ Gain practical experience in data mapping and database processing
BMI5306 **Advanced Agile Project Management**	▸ Master agile methods for project and product delivery in complex environments ▸ Apply iterative, adaptive planning, and frequent product releases ▸ Build agility to manage change, data-driven decisions, and rapid innovation
IT5001X **Software Development Fundamentals**	▸ Understand the principles and concepts of software development ▸ Learn basic coding, algorithms, testing, debugging, and data structures ▸ Build software through hands-on projects and experience the full software engineering cycle

For the full breakdown of core and elective courses, visit our programme webpage.

CAREER POSSIBILITIES

- **Bioinformatician**
- **Clinical Data and Public Health Analyst**
- **Health Informatics Consultant**
- **Research Associate**
- **Project Manager (in Health IT)**
- **Healthcare Software Developer**
- **Public Health Analyst**

TRUSTED VOICES

"The MSc in BMI programme has helped to formalise some of my work experience and knowledge into structured courses and allowed me to fill in gaps for areas of healthcare data. Another key benefit for me has been the networking — the programme was great for meeting people working in healthcare data and getting a sense of which skills are currently in demand."

- Eva Baker, Valedictorian of AY2023/2024, Class of 2025

"The programme gave me a strong foundation in biomedical data science despite my non-informatics background. The interdisciplinary curriculum and hands-on projects in data analytics and machine learning helped bridge my expertise in brain sciences with data science, advancing my career in research."

- Evelyn Zhang, AY2024/2025, Class of 2026



WHO SHOULD APPLY?

The programme welcomes **local and international applicants** from healthcare, technology, and data-related fields. It is ideal for:



Recent graduates

in medicine, health sciences, computing, engineering, or related disciplines who wish to build a career in biomedical informatics

Junior clinicians

seeking to apply biomedical informatics in clinical settings

Non-clinicians

such as computer scientists, engineers, and IT professionals aiming to transition into the healthcare sector and contribute to digital transformation and the Singapore Government's vision of a Smart Nation

KEY ADMISSION REQUIREMENTS

Academic and Professional Background

Bachelor's (preferably Honours) degree in M.B.B.S., Quantitative Sciences (e.g. Mathematics, Applied Mathematics, Statistics, Physics), Engineering, Computer Science, Business, or a related Health Sciences discipline

Other qualifications with relevant experience may be considered on a case-by-case basis

Language Proficiency

International applicants whose undergraduate education was not conducted in English must demonstrate proficiency with a minimum TOEFL score of 85 (Internet-based) or an IELTS Academic score of 6.0

Please note that admission is competitive, and meeting the minimum requirements does not guarantee entry into the programme.

REQUIRED DOCUMENTS FOR APPLICATION

- Statement of Purpose showcasing academic strength, research interests, motivation to study, and long-term development goals
- Curriculum Vitae (CV) providing an overview of relevant experience, skills and qualifications, and accomplishments
- Degree Certificate and University Transcripts
- TOEFL / IELTS Scoresheet (if applicable)
- Financial Support Documents

Visit our programme webpage for the full list of supporting documents required for your application.

UPCOMING INTAKE

August 2027

APPLICATION PERIOD

1 October 2026 - 2 February 2027

FEE REBATES AND FUNDING

- Singaporeans and Singapore PRs: 10% tuition fee rebate
- NUS Alumni: 20% tuition fee rebate
- Tuition fees may be offset using SkillsFuture Credit
- National Medical Research Council (NMRC) grant available, subject to approval

For the most up-to-date information on tuition fees, payment schedule, and available grants or funding support, please visit our programme webpage.

DEPARTMENT OF BIOMEDICAL INFORMATICS

The Department of Biomedical Informatics is at the forefront of digital healthcare. It engages with top research companies, clinicians, and academics in Asia to provide an unparalleled platform for learning and collaboration, and create career development and mentorship opportunities for students.

The department's core lies in harnessing data science and artificial intelligence to improve patient care and advance research. It addresses pressing healthcare challenges by leveraging vast computing resources and world-class facilities for research.

Students benefit from this environment, gaining hands-on experience and critical skills in an academic medical centre. This prepares them for impactful roles and thought leadership in the rapidly evolving fields of healthcare analytics, informatics and technology.

Learn more about the Department of Biomedical Informatics at https://medicine.nus.edu.sg/dbmi

For updates and news, follow DBMI on and

NUS National University of Singapore | Department of Biomedical Informatics
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THE NUS MEDICINE ADVANTAGE

1st — QS & THE (Asia)

13th — THE (World)

17th — QS (World)

At the National University of Singapore (NUS), students receive a world-class education at one of the top global universities. The Yong Loo Lin School of Medicine is Asia's leading medical school, offering an exceptional opportunity to pursue advanced medical education.

Known for producing healthcare professionals who are innovators and leaders, its global reputation, paired with its focus on fostering critical thinking and innovation, makes its graduates highly sought after in both research and clinical settings. A master's degree from NUS Medicine is an investment in a future of leadership, expertise, and meaningful impact in the healthcare industry.

Statistics Source: Times Higher Education (THE) World University Rankings by Subject 2026: Medical and Health and Quacquarelli Symonds (QS) World University Rankings by Subject 2026: Medicine



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SCAN QR TO START YOUR APPLICATION

Master of Science in Biomedical Informatics (MSc in BMI)

For general enquiries, please email **dgsmarketing@nus.edu.sg**
For programme-specific enquiries, please contact **nusdbmi@nus.edu.sg**

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