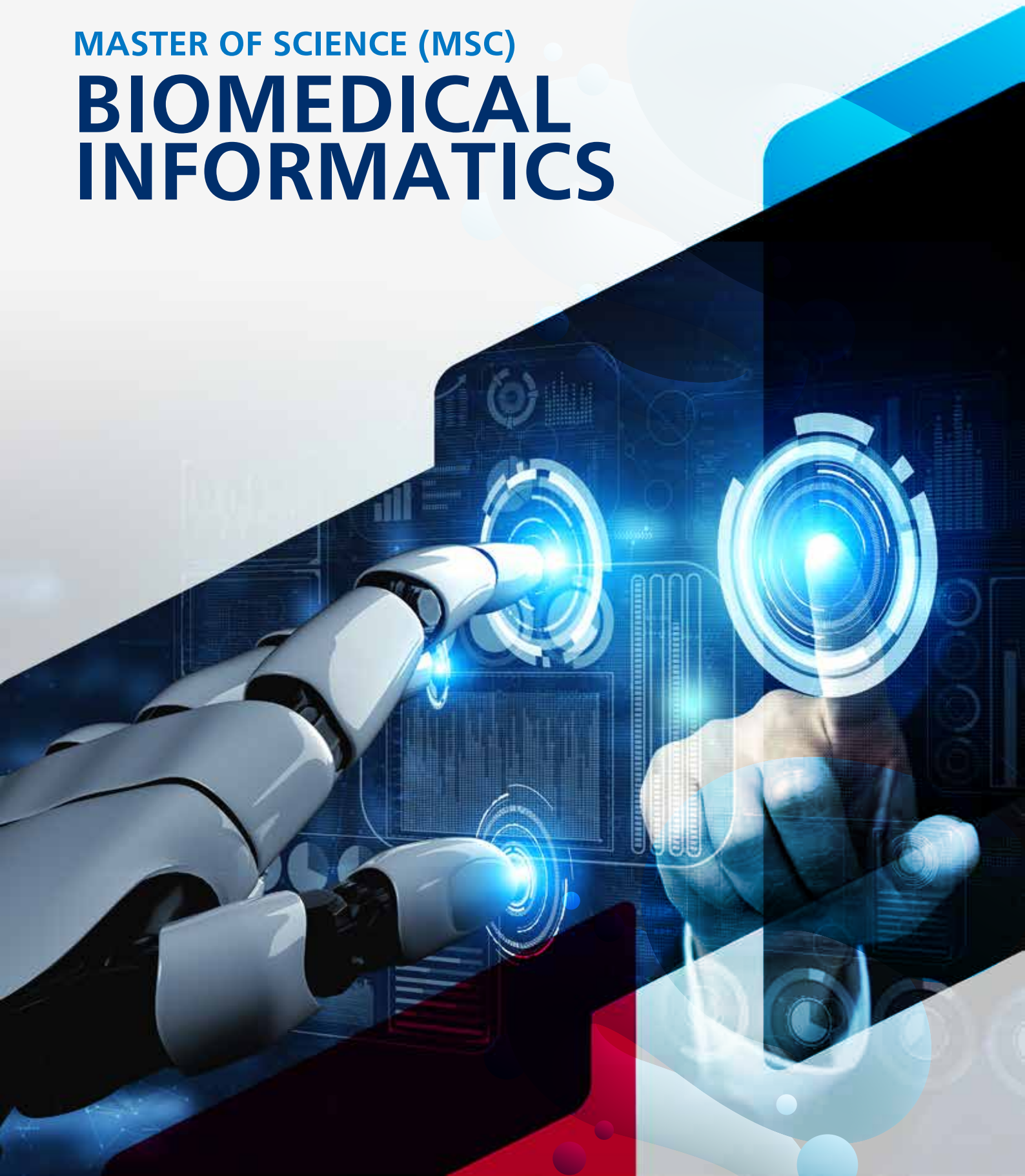
NUS National University of Singapore

Department of Biomedical Informatics
Yong Loo Lin School of Medicine

MASTER OF SCIENCE (MSC)

BIOMEDICAL INFORMATICS



MASTER OF SCIENCE (MSC)

BIOMEDICAL INFORMATICS

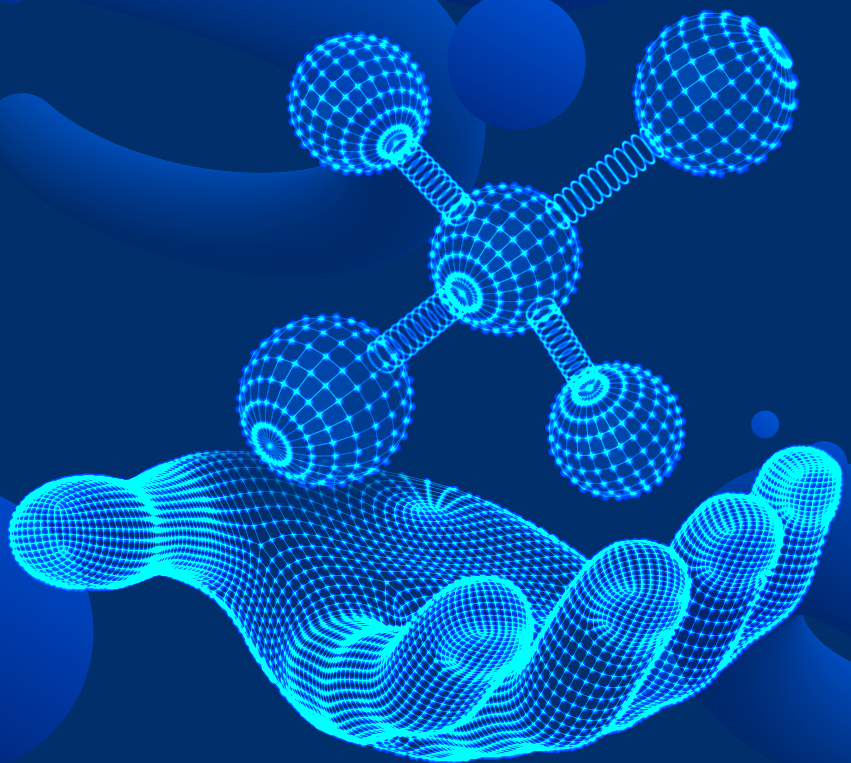
NATIONAL UNIVERSITY OF SINGAPORE

National University of Singapore (NUS) is one of the world's leading universities, with over 40,000 students across three campuses. By offering a distinctively Asian yet global experience, NUS gives its students the opportunity not only to excel academically, but also to grow socially. NUS is recognised for its breadth of academic programmes, experiential learning, entrepreneurship education and impactful research. As we continue to grow from strength to strength, we take pride in nurturing our students and equipping them with the necessary skills to be the leaders of tomorrow.

Established in 1905 to educate and train medical professionals for Singapore, the National University of Singapore (NUS) Yong Loo Lin School of Medicine (NUS Medicine) is a leading medical educational and research institution in Asia.

MSC IN BMI

Created to help prepare healthcare workers to succeed in an increasingly technological field, the Master of Science in Biomedical Informatics (MSc in BMI) is a postgraduate degree programme offering specialisations in Analytics or Hospital Management.



THRIVE IN THE TECHNOLOGICAL REVOLUTION

Get training in data visualisation, machine learning, and more to be an asset in today's increasingly technological healthcare landscape.

GAIN EXPERIENCE WITH BIG DATA

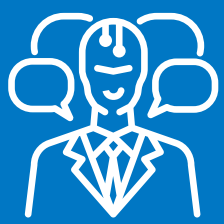
Get access to real-time, desensitised healthcare data from actual institutional healthcare settings and learn to utilise big data for validation in real clinical settings.

BE PREPARED FOR THE FUTURE OF HEALTHCARE

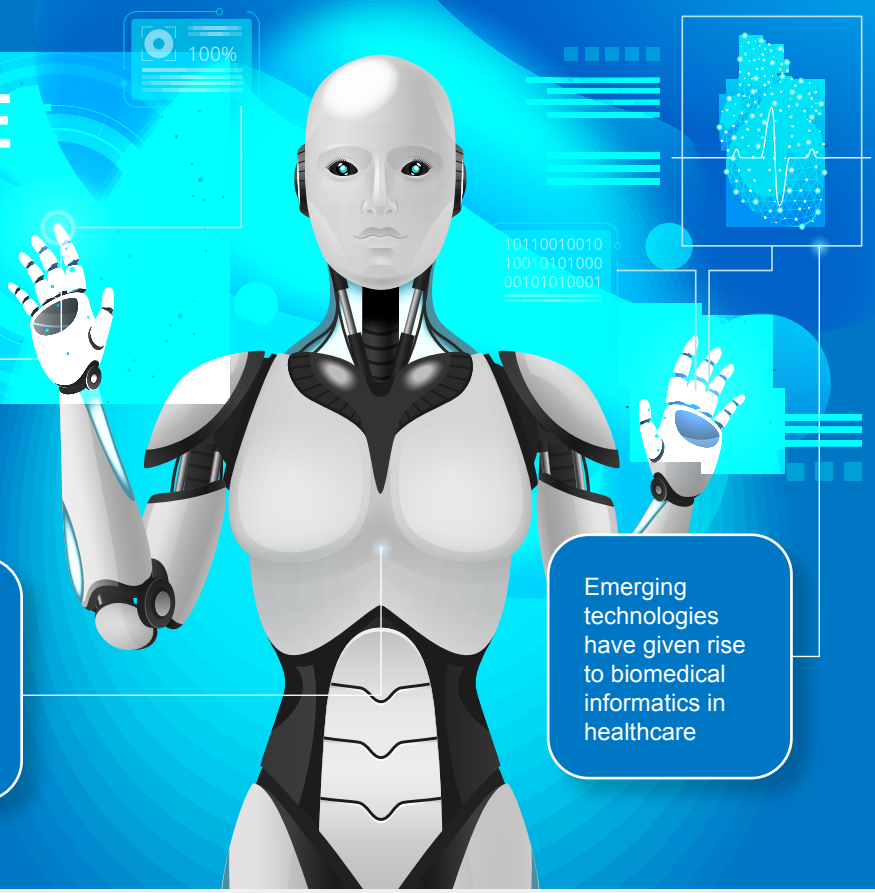
Keep your career opportunities open as more companies in the healthcare space increase their hiring rate.

RECEIVE EXPOSURE TO PRESTIGIOUS COMPANIES

Intern, participate in projects, and collaborate with international companies.



THE RISE OF TECHNOLOGY IN HEALTHCARE



Increased availability of Electronic Health Records + popularisation of machine learning

Advancements in Natural Language Processing (NLP) and Artificial Intelligence (AI)

Emerging technologies have given rise to biomedical informatics in healthcare

THRIVE IN THE TECHNOLOGICAL REVOLUTION

ELEVATING SINGAPORE'S HEALTHCARE SECTOR

MSc in BMI's coursework introduces a significant pool of skilled workers into the healthcare sector.

CORE SKILLS

The MSc in BMI aims to impart to students a suite of core skills including:

- Evidence-based clinical decision making
- Machine learning
- Data visualisation
- Effective communication
- Strategic leadership
- Entrepreneurship

ANALYTICS SPECIALISATION:

Students will be trained to reason, critically analyse, and subsequently evaluate the effectiveness of clinical decision support systems, as well as to lead and implement strategic clinical innovations or projects.

HOSPITAL MANAGEMENT SPECIALISATION:

Aimed at training students in various aspects of hospital work, such as implementation of public health policies, evidence-based patient care and clinical decision support systems.

FACULTY

Renowned faculty members from NUS School of Computing, School of Public Health and the Institute of Systems Science, who are subject matter experts in their respective domains, will teach the curriculum. Research fellows and associates in the Department of Biomedical Informatics will also support the delivery of curriculum content with their background in biomedical informatics research.

WHO IS THE COURSE FOR?

JUNIOR CLINICIANS

The programme will cover advanced modules of the American Medical Informatics Association (AMIA) curriculum, as well as offer relevant exposure to the Information Technology (IT) industry through joint courses and workshops.

NON-CLINICIANS

This course is also applicable for non-clinicians with industry expertise and skills, for instance computer scientists, to introduce them to the healthcare informatics field in terms of upskilling and contributing to the Singapore Government's vision of a Smart Nation.

COURSE FEATURES:

- **Highly intensive collaborative curriculum** with faculty from School of Computing, School of Public Health and Institute of Systems Science
- **Skilled resources** and real-time desensitised healthcare data from trained clinicians in NUSMed
- **Exposure and experiential learning** in the healthcare context during their internships allow students to participate in various industry projects and collaborate with prestigious international companies

- Big Data sourced from actual healthcare institutional settings (including primary care and community hospitals) provide students with real-world exposure that no other university in Singapore can offer
- Hands-on internships with prestigious companies enable students to work on potential clinical applications with the goal of improving patient care
- Real-time desensitised healthcare data in actual healthcare institutional settings including primary care and community hospitals. Utilisation of this Big Data will train students to utilise healthcare big data for validation in real clinical settings. This data is uniquely available only for our students compared to the rest of the local universities

CAREER OPPORTUNITIES

MSc in BMI graduates can explore career pathways in the healthcare and biomedical industries, including but not limited to:

- Data Analysts and Scientists
- AI and Machine Learning Specialists
- Digital Transformation Specialists
- Big Data Specialists
- Information Security Analysts
- Digital Marketing and Strategy Specialists
- Internet of Things Specialists
- FinTech Engineers (Health Finance)
- DevOps Engineer
- Database and Network Professionals
- Specialist Medical Practitioners
- Chief Innovation Officer
- Digital Transformation Lead

ADMISSION REQUIREMENTS

- Fresh graduates with M.B.,B.S. degree, Bachelor's (Hons) degree in Quantitative Sciences (e.g. Mathematics, Applied Mathematics, Statistics and Physics) or Engineering or Computer Science or Business or Health Sciences related discipline.
- Candidates with other qualifications and experience may be considered on a case-by-case basis.
- Admission is on a competitive basis and candidates with relevant industry experience will be considered favourably.
- International applicants are to submit TOEFL or IELTS test scores as evidence to demonstrate their language ability and readiness for graduate study. Candidates may be required to sit for other tests as prescribed by the School.

  The minimum TOEFL scores for Internet Based Test (IBT) is 85; or IELTS score of 6.0.
- The TOEFL/IELTS scores are valid for two (2) years from the test date and should not have expired at the point of application; expired scores will not be considered for the application.

PROGRAMME STRUCTURE AND CANDIDATURE

The programme is offered on a full-time or part-time basis with the option to specialise in either Analytics or Hospital Management. The programme has one intake per year, with candidates joining in August.

To graduate from the programme, students are required to read and pass five core modules and five elective modules.

APPLICATION

Tuition Fee
$54,488
(inclusive of GST)

Application Period
1 Oct 2022 - 21 Jan 2023
(Local and International)

Click to apply

NUS National University of Singapore | Department of Biomedical Informatics, Yong Loo Lin School of Medicine

Visit our website for more information:

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