

# MASTER OF SCIENCE IN SUSTAINABLE HEALTHCARE



NATIONAL UNIVERSITY OF SINGAPORE

ACADEMIC YEAR 2025/2026

**APPLY NOW**



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[medicine.nus.edu.sg/cosm](https://medicine.nus.edu.sg/cosm)



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# NUS

## 8<sup>th</sup> | 1<sup>st</sup>

in the world | in Asia

QS World University Rankings 2025

### ☀ ABOUT US

## NATIONAL UNIVERSITY OF SINGAPORE

The 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 students the opportunity to excel academically and to grow holistically. NUS is recognised for the breadth of its academic programmes, experiential learning, entrepreneurship education and impactful research.

NUS Medicine was listed as the leading medical school in Asia by Quacquarelli Symonds (QS) World University Rankings, in 2024.

## CENTRE FOR SUSTAINABLE MEDICINE

Based in Singapore, the Centre for Sustainable Medicine is dedicated to accelerating the transition to net zero healthcare in Asia Pacific and beyond. With faculty from across the world, the Centre has a critical mass of policy and scientific expertise in implementation science, health system carbon footprinting and clinical life cycle assessments.

Leveraging its position in Asia and its technical expertise, the Centre drives change by:

- Preparing the next generation of healthcare leaders and clinicians with bespoke training programmes in sustainable healthcare;
- Empowering clinicians with decision-support tools for evidence-based interventions, supported by best-in-class research, and;
- Equipping national governments to tackle climate change, with bespoke analytics support, strategy development and capacity building.





# DIRECTOR'S MESSAGE

Climate change is the greatest health challenge of our time, and healthcare must rise to meet it. While we have been part of the problem, we can be part of the solution too.

At the Centre for Sustainable Medicine in the National University of Singapore, we are committed to leading this transition. I am excited to introduce the Master of Science in Sustainable Healthcare, our world-leading programme dedicated to delivering climate-resilient, low-carbon healthcare. The urgency is clear — healthcare needs leaders like you to catalyse this change.

You will work with renowned experts, access cutting-edge research, and gain hands-on experience in driving and implementing net zero healthcare. You will be exposed to a diverse global community of students and have the unique opportunity to collaborate on ongoing projects with the Centre for Sustainable Medicine.

Graduates will be positioned for key roles to lead the future of healthcare and shape global policy. This isn't just about earning a degree — it's about driving real change. We hope you will join us on this journey towards a more sustainable future.

**Professor Nick Watts**

(Director, Centre for Sustainable Medicine,  
NUS School of Medicine)







## PROGRAMME OVERVIEW

The world's most prestigious medical journal, The Lancet, has made clear that “climate change is the biggest global health threat of the 21st century.” Simultaneously, healthcare faces unprecedented headwinds, with global demand rising unsustainably, driven by an ageing population, growing costs and the increasing burden of chronic disease.

Responsible for up to 7% of global carbon emissions – with hotspots seen in pharmaceuticals, hospitals, and medical devices — the health sector needs rapid transformation towards higher-quality care for the populations it serves, while tackling climate change directly.

This world-leading Master's programme will equip you to drive healthcare's transition toward a climate-resilient, low-carbon future.



The MSc provides you with the strong foundations and skillsets required to lead healthcare's response to climate change. Over 1 year (full-time) or 2 years (part-time), you will have access to a suite of specialised and transdisciplinary modules while having the flexibility to tailor the experience to your personal learning needs and career goals.

You will gain:

- A comprehensive understanding of how global environmental systems affect human health;
- A solid grounding in the principles of sustainable healthcare practices and analytic carbon accounting methodologies applicable to clinical settings;
- Hands-on, experiential learning and the opportunity to learn alongside a diverse global community of students focused on real-world change and climate action; and
- The opportunity to collaborate on the Centre for Sustainable Medicine's ongoing projects.



# CAREER OPPORTUNITIES

Suited for a wide range of professionals and academics, this course will provide you with a competitive edge in key roles in fields such as:



## Clinical Leadership & Hospital Management

- Chief Sustainability Officer
- Clinical Director of Sustainability
- Chief Operating Officer
- Clinical Sustainability Innovation Lead



## Research & Health Sciences

- Public Health Researcher
- Environmental Science Specialist
- Senior Carbon Analyst
- Research Fellow in Sustainable Healthcare



## MedTech & Pharmaceutical Industry

- Sustainability Innovation Manager
- Director of Research & Development
- Product Manager
- Strategy Analyst



## National Health Policy & Public Health

- Senior Health Policy Officer
- Director of Public Health
- Director of Health Emergencies & Preparedness
- Global Health Expert



## Supply Chain & Operations

- Chief Procurement Officer
- Healthcare Procurement Lead
- Supply Chain Resilience Manager
- ESG Specialist

## NURTURING A NEW GENERATION OF HEALTHCARE SUSTAINABILITY LEADERS

This MSc is a 1-year (full-time) or 2-year (part-time)  
degree comprising 40 units of coursework.

To graduate, students are required to:

- Complete 6 core courses
- Choose and complete 4 elective courses

### List of Core Courses:

- Principles of Sustainable Healthcare Practices
- Foundations of Net Zero Analytics
- Climate, Environment & Health
- Delivering and Implementing Net Zero Healthcare
- Sustainable Healthcare Implementation Project I & II



**Prof Nick Watts**  
*Centre for Sustainable  
Medicine  
Director*



**Dr Amanda Zain**  
*Centre for Sustainable  
Medicine  
Deputy Director*



**A/Prof Eugene Liu**  
*National University  
Health System  
Chief Sustainability  
Officer*



**Prof Tan Sri  
Jemilah Mahmood**  
*Sunway Centre for  
Planetary Health  
Executive Director*



**Dr Jessamy Bagenal**  
*The Lancet  
Senior Executive  
Editor*



**A/Prof Wong Hon Tym**  
*Centre for Healthcare  
Innovation  
Clinical Director*



**Sammie Leung**  
*PwC  
Partner, Asia Pacific  
Sustainability*



**Dr Sandro Demaio**  
*WHO APAC Centre on  
Environment and Health  
Director*



**A/Prof Chantelle Rizan**  
*Centre for Sustainable  
Medicine  
Clinical Transformation  
Lead*



**Paulette Frank**  
*Johnson & Johnson  
Chief Sustainability  
Officer*



## NURTURING A NEW GENERATION OF HEALTHCARE SUSTAINABILITY LEADERS



**Nina Zhang**  
*Singapore Healthcare  
Procurement Agency  
(ALPS)*  
Chief Procurement  
Officer



**Prof Koh Lian Pin**  
*NUS Nature-Based  
Climate Solutions*  
Director



**Dr Agnes Henson**  
*Centre for Sustainable  
Medicine*  
Net Zero Supply Chain  
Expert



**Chris Gormley**  
*National Health  
Service, UK*  
Chief Sustainability  
Officer



**Asst. Prof  
Jonathan Lee**  
*Centre for Sustainable  
Medicine*  
Carbon Footprinting  
and LCA



**Prof Khoo Teng Chye**  
*NUS Cities*  
Director



**Tom Andrew**  
*Centre for Sustainable  
Medicine*  
Health System  
Carbon Specialist



**A/Prof Kimberly  
Fornace**  
*NUS School of Public  
Health*  
Infectious Disease and  
Environmental Change



**A/Prof Yann  
Boucher**  
*NUS School of Public  
Health*  
Environmental Health



# STUDY PLAN

**Full-Time (1 year)**

## Semester 1 (11 August - 6 December 2025)

**16 units**

**4 core courses**

**SM5001** Principles of Sustainable Healthcare Practices  
**SM5002** Foundations of Net Zero Analytics  
**SM5003** Climate, Environment & Health  
**SM5101** Sustainable Healthcare Project I



**4 units**

**1 elective course**

Select from list



**20 units**

## Semester 2 (12 January - 9 May 2026)

**8 units**

**2 core courses**

**SM5004** Driving and Implementing  
 Net Zero Healthcare  
**SM5102** Sustainable Healthcare Project II



**12 units**

**3 elective courses**

Select from list



**20 units**

**The MSc is a 1-year (full-time) or 2-year (part-time) degree comprising 40 units of coursework.**

- To graduate, students are required to complete and obtain a minimum GPA of 3.0 (Grade B-) out of 5.0 across all courses comprising 6 core courses and 4 elective courses (of your choice).
- Full-time students are expected to complete the programme within 1 year.
- Part-time students are expected to complete the programme within 2 years.
- The maximum candidature for full-time and part-time students is 2 and 4 years, respectively.

### Key Dates

- Class for Semester 1 will commence on **Monday, 11 August 2025**.
- Class for Semester 2 will commence on **Monday, 12 January 2026**.
- NUS academic calendar: [AY2025/2026](#), [AY2026/2027](#)



# STUDY PLAN

Part-Time (2 years)

**Year 1** (11 Aug 2025 - 9 May 2026)

**Semester 1**

**12 units**

**3 core courses**

**SM5001** Principles of Sustainable Healthcare Practices

**SM5002** Foundations of Net Zero Analytics

**SM5003** Climate, Environment & Health



**Semester 2**

**8 units**

**1 core course**

**SM5004** Delivering & Implementing Net Zero Healthcare

**1 elective course**

Select from list

**= 20 units**

**Year 2** (10 Aug 2026 - 8 May 2027)

**Semester 1**

**12 units**

**1 core course**

**SM5101** Sustainable Healthcare Project I

**2 elective courses**

Select from list



**Semester 2**

**8 units**

**1 core course**

**SM5102** Sustainable Healthcare Project II

**1 elective course**

Select from list

**= 20 units**

## WORKLOAD PER SEMESTER

- Full-time students can expect to spend approximately 15 contact hours per week across 5 courses, with a total of 35 hours per week in assessment, self-directed learning and class preparation.
- For full-time students, the maximum and minimum workload per semester is 20 units (5 courses) and 12 units (3 courses) respectively.
- For part-time students, the maximum and minimum workload per semester is 12 units (3 courses) and 4 units (1 course) respectively.





# CORE COURSES

<b>SM5001</b>	<b>Principles of Sustainable Healthcare Practices (4 units)</b>
<p>This course takes a deep dive into the complex field of sustainable healthcare. Students will gain an understanding of the frameworks used to guide climate mitigation and adaptation interventions in healthcare. Structured to provide a broad introduction, the course covers key interventions and solutions for each of the major carbon hotspots throughout a health system.</p>	
<b>SM5002</b>	<b>Foundations of Net Zero Analytics (4 units)</b>
<p>Students will develop the ability to measure the carbon footprint of clinics, hospitals and health systems, with a focus on life cycle assessments. Teaching will cover the design and implementation of these methods, focusing on how they can be used to drive clinical practice and policy towards net zero healthcare, and how to critically appraise published environmental impact assessments.</p>	
<b>SM5003</b>	<b>Climate, Environment &amp; Health (4 units)</b>
<p>This course offers students a foundational understanding of the intricate relationships between climate, environmental change, and health. Delivered intensively over two weeks by leading climate and health experts, it covers topics ranging from environmental epidemiology and sustainable food systems to global governance and the economic frameworks of climate change. Students will gain valuable insights into policy-focused approaches for addressing climate-related health challenges, including adaptation and mitigation strategies.</p>	
<b>SM5004</b>	<b>Delivering and Implementing Net Zero Healthcare (4 units)</b>
<p>Combining conceptual frameworks and insights from policy and industry experts, this course equips students with the theoretical knowledge and practical skills needed to drive change at multiple levels — from their immediate professional environment, through to broader societal and political landscapes. Students will learn to strategically navigate and address organisational challenges, empowering them to influence, innovate, and lead in shaping the future of healthcare sustainability.</p>	
<b>SM5101 / SM5102</b>	<b>Sustainable Healthcare Implementation Project I &amp; II (Capstone) (8 units)</b>
<p>Students have the opportunity to pursue a topic or project in net zero healthcare over the course of a year, implementing the knowledge and skills learned throughout the programme. Multi-disciplinary projects focused on the analytics and strategy required for real-world implementation are encouraged, focused on an area based on the student's preferences.</p>	



# ELECTIVE COURSES

Course code	Course title	Semester	Units
<b>Hospital Leadership</b>			
BMI5106	Clinical Decision Support Systems	2	4
BMI5108	Advanced Value Based Healthcare	1, 2	4
SPH5415	Healthcare Operations and Management	1	4
<b>Healthcare Systems</b>			
BIH5002	Evidence-Informed Practice & Policies in Healthcare	2	4
BIH5103	Programme Evaluation in Health	1	4
SPH5418	Public Health Policy: A Systems Approach	2	4
<b>Climate Change &amp; Sustainability</b>			
AR5323	Well & Green Built Environment	1, 2	4
CCS5101	Climate Change - The science & the policy	1	4
CCS5102	Sustainability and Climate Change	2	4
IE5206	Energy and Sustainability: A Systems Approach	1, 2	4
<b>Research Methodologies</b>			
BMI5109	Advanced Scientific Research Methods	2	4
MCI5006	Design and Planning of Epidemiological Studies	1	4
SPH5409	Qualitative Methods in Public Health	1	4

Elective courses offered are subject to change. Students may submit requests for other graduate electives not listed above, subject to faculty approval.





# APPLICATION CRITERIA

CLASSES START

AUGUST 2025

APPLY FROM

18 NOVEMBER 2024 - 7 MARCH 2025

This MSc is developed for bachelor's degree graduates in healthcare-related fields (e.g. **medicine, nursing, biomedical science, health policy, public health** and **allied health disciplines**), as well as **public policy** and **social sciences, sustainability** and **environmental science**. Candidates with other relevant qualifications will be considered on a case-by-case basis.

International applicants who graduated from universities where English is not the medium of instruction must submit TOEFL/ IELTS scores as evidence of proficiency in the language. The minimum score for IELTS is 6.0 and for TOEFL (internet-based test) is 85.

## HOW TO APPLY

APPLY NOW

- Click [here](#) for the Applicant Guide to the Graduate Admission System (GDA3)
- Click [here](#) for the Checklist for Applicants

Applications will be processed on a rolling basis. Successful applicants will be notified latest by end-April 2025.

- ✓ Submit a **Statement of Purpose** of no more than 300 words in Word or PDF format. The statement should showcase your academic strength, research interests, motivation to study, and long-term development goals.
- ✓ Provide a **Curriculum Vitae (CV)** detailing your relevant experience, skills, qualifications, and accomplishments.





# TUITION FEES

**Total tuition fees** (for students enrolled in Academic Year 2025/2026): **S\$54,000**, exclusive of 9% Goods and Services Tax (GST).

The payment schedule (in SGD, exclusive of GST) is as follows:




	Full-Time Students	Part-Time Students
Acceptance Fee*	S\$5,000	S\$5,000
Year 1 Semester 1	S\$24,500	S\$12,250
Year 1 Semester 2	S\$24,500	S\$12,250
Year 2 Semester 1	-	S\$12,250
Year 2 Semester 2	-	S\$12,250

- \*Acceptance fee is payable upon acceptance of offer and will be credited towards tuition fees. It is non-refundable and non-transferable.
- A non-refundable and non-transferable application fee of \$50 (inclusive of GST) applies.
- All Singapore Citizens and Permanent Residents will receive a 40% tuition fee rebate.
- All NUS alumni (regardless of nationality) will receive a 20% tuition fee rebate.
- Tuition fees are subjected to annual review and inflation.
- For other miscellaneous fees, please refer to the NUS' Office of University Registrar [website](#).

## FINANCIAL AID

For more on scholarships and financial assistance, please refer to the NUS Scholarships & Financial Assistance [website](#).

# GET IN TOUCH WITH US

-  [cosm@nus.edu.sg](mailto:cosm@nus.edu.sg)
-  [medicine.nus.edu.sg/cosm](https://medicine.nus.edu.sg/cosm)
-  [linkedin.com/company/sustaincosm/](https://linkedin.com/company/sustaincosm/)

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