



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

School of Materials
Science and Engineering
College of Engineering

SCHOOL OF MATERIALS SCIENCE AND ENGINEERING

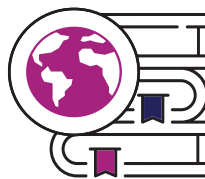
Graduate Programmes



Reasons to choose our MSE Postgraduate Programmes



Consistently ranked among the top universities globally in Materials Science



Learn from faculty who are recognised as top 2% scientists in the world



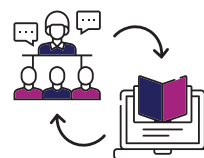
Equipped skills that aligned with global industry demand



Gain access to a dynamic, innovative, and interdisciplinary learning environment.



Exposure to real-world engineering and materials challenges



Enjoy the flexibility of a mixed-learning approach that combines asynchronous online learning with conventional face-to-face teaching.

Career Prospects

Our postgraduate programmes are designed to prepare graduates for meaningful careers in high-impact industries and advanced research such as:



Aerospace / Defence



Biomedical & Healthcare



Consumer Business



Chemical & petrochemical



Electronics & Semiconductors



Energy & Renewable Technologies



Sustainability & Environmental Technology



Research & Academia



Who should apply?

The programme welcomes local and international applicants. It is ideal for:

- Recent Graduates
- Working professionals
- Lifelong learners
- Industry Practitioners

Master of Science (MSc)

The Master of Science (MSc) programmes are coursework-based degrees designed to build advanced technical and industry-relevant expertise.

Application Period and Eligibility Details

January Intake

Application period (1 July – 31 August)

August Intake

Application period (1 October – 31 March)

- Good Bachelor's degree in Engineering or Equivalent
- Good qualifications in materials science and engineering or closely related major with substantial work experience
- Good TOEFL/ IELTS score for applicants whose native language is not English. Test dates no more than 2 years from application date.

Candidature Period

Full time:

1 year minimum /
3 years maximum

Part time:

2 years minimum /
4 years maximum



Master of Science in Materials Science and Engineering

The MSc in Materials Science and Engineering equips graduates with the expertise to pursue impactful careers across advanced industries and research. Career opportunities include roles such as Materials Engineer, Metallurgical Engineer, Semiconductor Process Engineer, Biomaterials Engineer, Renewable Energy Materials Specialist, and Medical Device Engineer and more.

Specialisations

For students who wish to develop additional depth in a specific area, MSE now offers two optional specialisation pathways.



NanoMaterials

or



Sustainable Materials

MSc in Materials Science and Engineering Scholarship

Covers Monthly Stipend



Scan to find out more about the MSc in Materials Science and Engineering programme.

Academic Pathways

Default route: MSc students will be enrolled on the coursework study option by default. (General Electives: 30 AU)

Opt-in route (Optional):

Specialisation study option:



General Electives
18 AU

+



Specialisation Electives
12 AU

Dissertation study option:



Coursework
24 AU

+



Dissertation
6 AU

FlexiMasters to MSc Degree study option:



FlexiMasters (15 AU)
(Subsidised by SSG)



Coursework (15 AU)
Self-Funded

Applicable to Singapore Citizens and Permanent Residents.

Master of Science in Applied Materials Analytics

The MSc in Applied Materials Analytics is designed for graduates seeking to develop advanced expertise in materials characterisation, diagnostics, and failure investigation. Career opportunities include roles such as Materials Analysts, Failure Analysis Engineers, Characterisation Scientists, Quality Assurance / Quality Control Engineers, Process Engineers, Analytical Scientists, R&D Engineers, and Technical Specialists and more.

Academic Pathways

Default route

MSc students will be enrolled on the coursework study option by default.



Core courses
10 AU

+



Electives
20 AU

Opt-in route (Optional):

Dissertation study option:



Coursework
24 AU

+



Dissertation
6 AU



Scan to find out more about the MSc in Applied Materials Analytics programme.

Doctor of Philosophy (PhD) & Master of Engineering (MEng)

Take your research passion to greater heights by joining our Doctor of Philosophy (PhD) and Master of Engineering (MEng) by Research programmes.

Application Period and Eligibility Details

January Intake

Application period (1 June – 31 July)

August Intake

Application period (1 November – 28 February)

- Relevant Bachelor's degree Honours (2nd upper, distinction or higher)
- Demonstrated ability for independent research in proposed field
- Good TOEFL/ IELTS score for applicants whose native language is not English. Test dates no more than 2 years from application date.

Candidature Period

Ph.D

Full time: 2 years minimum / 5 years maximum

Part time: 3 years minimum / 5 years maximum

M.Eng

Full time: 1 year minimum / 3 years maximum

Part time: 1 years minimum / 3 years maximum



Research areas

Creating real world solutions, our research areas span the following areas:



Energy & The Environment

- Sustainability and Clean Energy
- Circular Economy
- Green Chemistry
- Catalysis for Green Energy
- Next Generation Solar Cells
- Fire-Resilient and Sustainable Built Environments



Advanced Materials & Manufacturing Innovation

- Semiconductors and Novel Semiconductors
- Advanced and Additive Manufacturing
- Flexible Electronics
- 2D Materials



Health & Medical Technologies

- Biomedical Devices
- Sensing and Flexible Electronics
- Drug / Payload Delivery Systems



Computational Materials Science & AI for Accelerated Materials Discovery

- Computational Materials Science
- State of the Art Characterisation
- Materials Discovery with AI

PhD Scholarship



Scan to find out more details on the available scholarships



Scan to find out more about Ph.D and M.Eng

FlexiMasters in Materials Science and Engineering

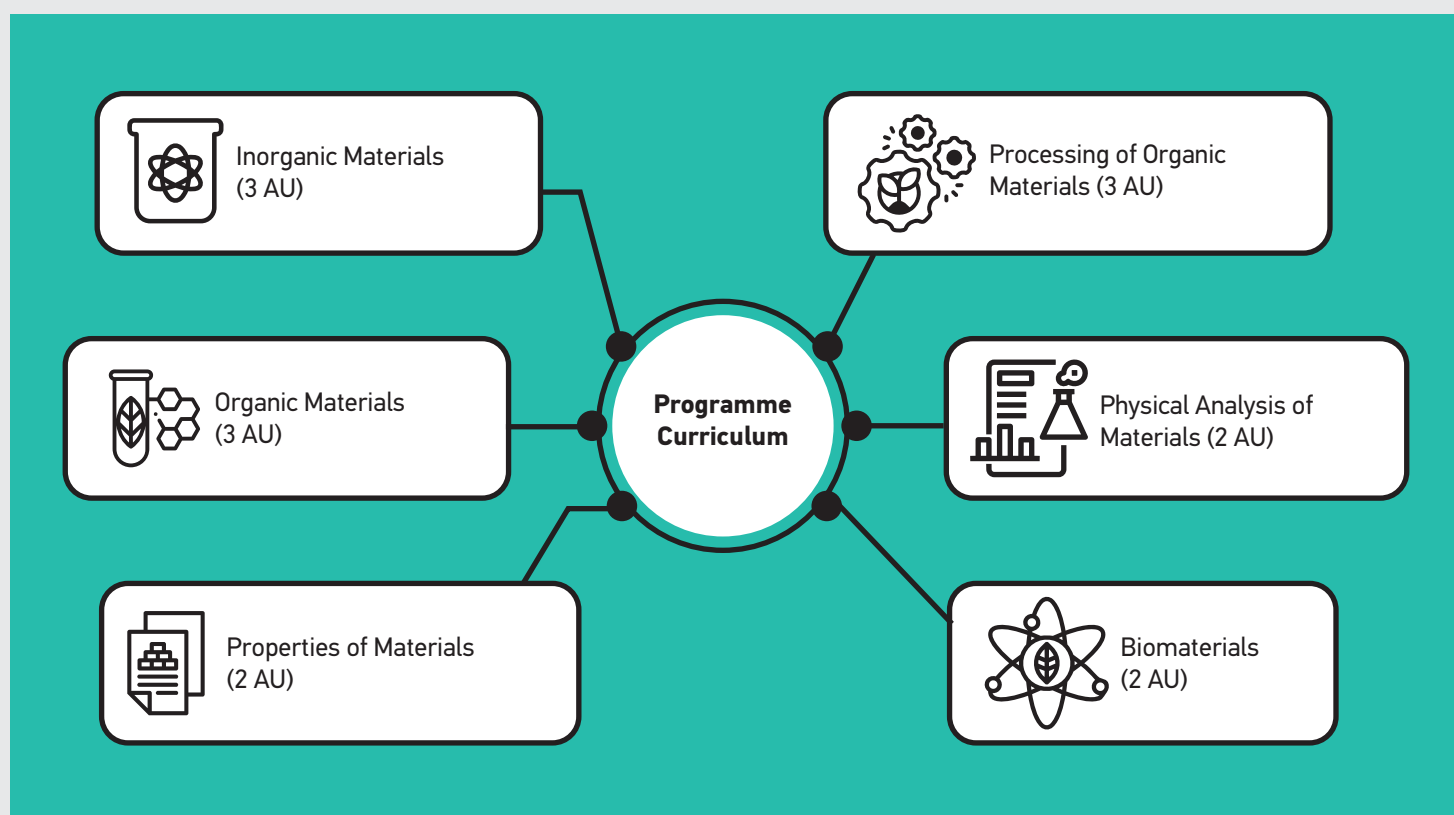
Learners gain advanced knowledge in materials science and engineering. Designed for professionals in engineering, manufacturing, quality control, failure analysis, and research and development (R&D), this programme delivers industry-relevant skills to help learners stay ahead in a competitive field.

Application Period

The programme commences in January & August. Refer to the website for more details.

Programme Structure

- Mode of class delivery: Asynchronous E-Learning
- Modules stackable towards an MSc in Materials Science and Engineering via FlexiMasters (FM) funded route.
- A FlexiMasters will be awarded to learners attaining 15 AUs and achieving a minimum CGPA of 2.5 for each course.
- No exams



Funding

Please refer to the website for more information on the course fees and fundings. Applicable to Singapore Citizen (SC) and Permanent Resident (PR).

- SSG Funded
- SkillsFuture Credit Approved

Pathway to the MSc in Materials Science and Engineering:

Singaporean and Permanent Resident applicants interested in the MSc in Materials Science and Engineering programme may apply through the FlexiMasters (FM) funded pathway. Under this route, enrolment into the MSc programme will be deferred by one year. Students will first undertake the FlexiMasters programme and complete 15 AUs. Upon successful completion, they will transition into the MSc programme to fulfil the remaining 15 AUs.



Scan to find out more about
**FlexiMasters in Materials Science
and Engineering Programme**

School of Materials Science and Engineering (MSE)

Nanyang Technological University, Singapore
50 Nanyang Avenue, Block N4.1, Graduate Studies Office, Singapore 639798



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www.ntu.edu.sg/mse



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Information is correct at time for print. For the most updated information, visit www.ntu.edu.sg/mse.