NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Materials Science and Engineering
College of Engineering

SCHOOL OF MATERIALS SCIENCE AND ENGINEERING

Master of Science 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 November – 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

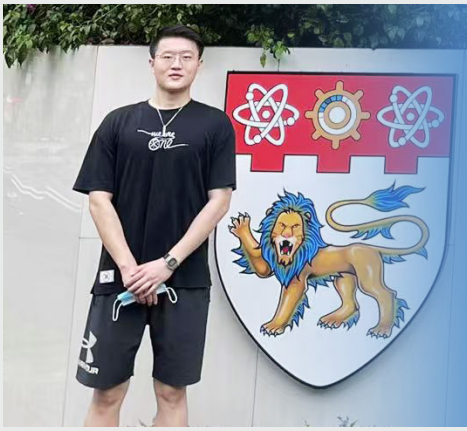
Scan to find out more about the MSc in Applied Materials Analytics programme.

Testimonials

"The MSc programme exemplifies the interdisciplinary and diverse nature of materials science, encompassing coursework in materials science, physics, chemistry, and biology. It has not only broadened my knowledge but also strengthened my competencies in project planning, teamwork, and the communication of research findings. Through this experience, I have developed a clear ambition to pursue further studies in the field of biomaterials.

Remaining in the MSE programme to pursue a PhD was a natural progression, as it aligns closely with my academic expectations and aspirations. As a recipient of the NTU Research Scholarship and an awardee for my poster presentation at International Conference on Materials for Advanced Technologies (ICMAT) 2025, I have been further motivated to deepen my research capabilities. The school provides a conducive research environment characterised by intellectual flexibility, strong funding support, and well-established resources. Supervisors offer valuable guidance on research directions while maintaining an appropriate balance, thereby fostering a high degree of independence in research."

Chen Zilin
MSc in Materials Science and Engineering, Class of 2021



"Upon graduation, I received offers from several companies in both China and Singapore, including Huawei, Honor, Xiaomi, and Yangtze Memory Technologies, among others. I chose to join United Microelectronics Corporation (UMC) Singapore as a Process Integration Engineer, where I work in process integration and continue to take on new challenges while further developing my professional expertise.

The MSc programme not only provided me with solid academic training but also enabled me to build a valuable professional network. Through classroom discussions, laboratory sessions, and interactions with peers, students from diverse national and industry backgrounds were able to exchange knowledge and insights. After graduation, my peers have pursued careers in various technology companies, including DJI, BYD, and CATL and more. We have remained in close contact and continue to support one another in our professional development."

Shi Nian
MSc in Materials Science and Engineering, Class of 2022

"Choosing NTU MSE became a turning point in my life. The environment here pushed me to grow in ways I never expected.

NTU offered a coursework master's programme with the option to pursue a dissertation. That opened the door for someone like me who wanted to explore research before committing to a full PhD. The dissertation gave me the opportunity to engage deeply with research and explore it meaningfully. My supervisor, Prof Lam Yeng Ming, was instrumental in shaping my research direction and guiding me to think more systematically and critically. Through this experience, I gained a clearer understanding of what rigorous research truly demands, which has given me greater confidence in considering a PhD pathway."

Rajendra Salim
MSc in Materials Science and Engineering, Class of 2025

School of Materials Science and Engineering (MSE)

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Connect With Us

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