

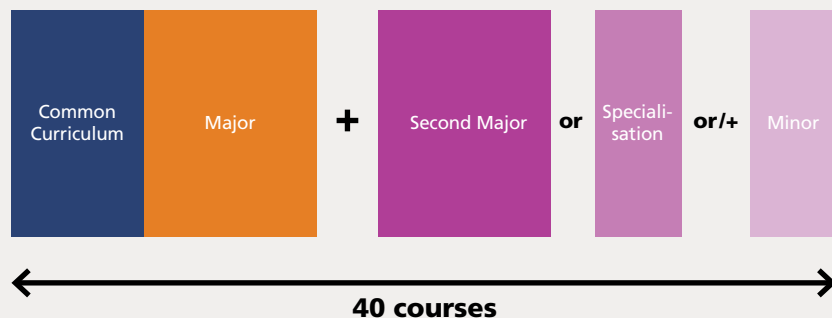
## Programme Overview

The MSE programme at NUS is a four-year undergraduate programme that combines a solid foundation in solid-state physics and chemistry with practical aspects of materials design and engineering. Besides theoretical training, experimental work forms a crucial component of the MSE curriculum, paving the way for students to specialise in their desired career paths in research, industry practice or technopreneurship.

### The programme has six specialisations:

- Biomedical Materials
- Nanostructured Materials & Nano Technology
- Functional Intelligent Materials
- Materials for Renewable Energy & Sustainability
- Robotics
- Microelectronics & Quantum Materials

## Build Your Own Degree



MSE students have the option to expand their expertise through double degrees, second majors or minors in a variety of disciplines:

- BEng Double Degree in MSE with Business Administration
- BEng in MSE and Doctor of Medicine (seven-year programme with Duke-NUS)
- Double major in MSE with Innovation & Design
- Minor programmes are available in Data Engineering, Optics and Semiconductors, Mathematics, Cultural Studies, Technopreneurship, Analytical Chemistry, Physics, Economics, Artificial Intelligence and more.

The programme also offers extensive overseas and industrial opportunities, including:

- Student Exchange Programme (SEP)
- International Summer (& Winter) Programmes (i-SP)
- NUS Overseas Colleges (NOC)
- Other Global Internship experiences

NUS offers financial aids such as bursaries, awards and loans.



For more information, scan this QR code.

## Educational Journey

### Year 1

Students begin their journey by establishing a solid foundation in engineering, mathematics and science, complemented by an introduction to data analytics and project management. Engagement in MSE student club activities broadens networks and provides insights into the field, enhancing the campus experience.

### Year 2

The curriculum deepens with core principles of Materials Science and Engineering courses, including an introduction to artificial intelligence. The Undergraduate Research Opportunity Programme (UROP) is available for students interested in exploring research opportunities early in their academic career.

### Year 3

Opportunities for international exposure are available through student exchange programmes at prestigious universities worldwide. For those interested in entrepreneurship, the NUS Overseas Colleges (NOC) programme offers insights into the startup culture. Industrial attachments and vacation internships provide practical exposure to the materials industries, enriching students' understanding and experience.

### Year 4

Students apply their comprehensive knowledge of materials to address industrial challenges. The Final Year Project offers a range of research opportunities, allowing students to explore advanced topics. Hands-on experience in materials processing and exploration of machine learning's impact on materials development equip students with innovative skills in the field.

