NURTURING HOLISTIC ENGINEERS IMPACTING LIVES
VISION
A leading engineering school that innovates for a better future.

MISSION
To nurture engineer-leaders and to address global challenges through research, innovation, inspiration and influence.
About Us

Driven by a strong commitment to impact lives and drive Singapore’s growth, graduates and staff from National University of Singapore’s Faculty of Engineering (NUS Engineering) have played a pivotal role in transforming the country into a knowledge-driven hub, and continue to fulfill the country’s needs and shape its future.

As Singapore’s first Engineering school, NUS Engineering has been training engineers since 1955. Today, the Faculty is home to close to 10,000 students, and is ranked among the world’s top engineering schools.

A vibrant community, NUS Engineering offers 10 programmes and different pathways to nurture holistic engineers.

*Source: Times Higher Education (THE) Asia University Ranking 2019
NUS Engineering: Impacting Lives

With a focus on impacting lives and driving Singapore’s growth, NUS Engineering nurtures engineer-leaders who address current and future challenges through their work, and innovate for a better future.

The best thing about the Energy & Sustainability specialisation in NUS Mechanical Engineering was that I was exploring issues that were of interest to me, which made the whole learning process enjoyable and fulfilling. I was also assured that what I learned is applicable to my future career in the energy sector. In NUS, it felt like trying out something or embarking on a personal project, it was easy to just go ahead and do it. The university is a great testbed for your ideas.

Koay Yi Jing, Class of 2013
Mechanical Engineering
Senior Engineer, Sembcorp Industries

Global Engineering Programme was an important part of my undergraduate years. It gave me many opportunities (including research and going to the United States for a semester of student exchange) that I would not have had outside the programme! I have many fond memories of Global Engineering Programme and would choose it all over again. It also provided a smooth path for me as I went on to study Medicine in my post-graduate years. I would highly recommend it.

Dr Lim Zhi Rui, Carmen, Class of 2012
Global Engineering Programme
Medical Officer, Tan Tock Seng Hospital

With the advent of greater global concern about climate change and resource sustainability in recent years, as a graduate from NUS Environmental Engineering, I have been well-prepared. Through careful structuring of its course, well-considered partnerships with stakeholders and a genuine concern for its students, NUS Environmental Engineering opened many doors for me. One highlight was the opportunity to work closely with the Mauritius Government to provide technical and policy advice during a period of drought. Right now, I continue to contribute to Singaporeans’ day-to-day lives and drive Singapore’s long-term sustainability through an interesting range of infrastructure planning roles across the Singapore Government.

Matteo Org, Class of 2019
Environmental Engineering
Principal Engineer, Drainage Planning (Catchment & Waterways Department), Public Utilities Board

In my time at NUS Engineering, I was fortunate to have come under the wings of esteemed and nurturing lecturers. I was also given the chance to broaden life perspectives by pursuing an internship overseas. NUS Engineering provided an environment that nurtured my love for engineering and truly widened my horizons, moulding me into who I am today.

Er Tan Yong Ieng, Class of 1987
Civil Engineering
Principal, Singapore Office Leader, Arcad

NUS Engineering’s array of exciting courses allowed me to pursue my passion in both technology and film, giving me an edge to pursue my dreams in the ever-changing digital media economy!

Derek Tan, Class of 2009
Electrical Engineering
Co-founder, Videbee

I’m glad to have chosen to read the Engineering Science Programme at NUS. I truly enjoyed the experience. All the cohort was small, we were a tight-knit group. The multidisciplinary nature of the course also gave me the option to choose an extremely interesting final year project that has real-world applications.

Chin Min, Class of 2010
Engineering Science Programme
Physician Researcher, KK Women’s and Children’s Hospital

With a focus on impacting lives and driving Singapore’s growth, NUS Engineering nurtures engineer-leaders who address current and future challenges through their work, and innovate for a better future.
Engineering is a very wide field with various disciplines (e.g. civil, electrical, mechanical), with engineering skills and knowledge that are applicable in diverse ways to meet the needs of a technologically advanced world. Recognising that there are different employment opportunities in engineering, and to help students prepare for a career that best suits their interests and aspirations, NUS Engineering offers differentiated pathways to help students progress in their chosen field. The pathways are grounded in a common disciplinary foundation of core and technical elective modules, and are differentiated mainly by the focus of the compulsory internship, final-year project and pathway-specific modules.

Practicing Professional Pathway (PPP) is the main pathway for those looking to work as an engineer upon graduation. Students will be prepared for a versatile engineering career through industry-linked internships, professional development modules and other practice-related modules.

Innovation & Design Programme (IDP) is for students interested in developing new ideas or products or technopreneurship. Students will work in teams with peers from other engineering disciplines on multi-year projects to solve problems and develop new technologies. Students will need entrepreneurship modules and undergo internships at local startups or participate in the NUS Overseas Colleges programme. This pathway is offered only as a second major, which provides an edge for our graduates.

Research-Focused Pathway (RFP) prepares students for a career in research as well as to pursue graduate research degrees. Students will have the opportunity to go for internships at research institutes or research laboratories, undertake an advanced research-focused final-year project and need a specified number of graduate-level modules. Before the final year, students may also opt to experience independent research under the Undergraduate Research Opportunities Programme.

Choosing a Pathway
After a common Year 1 curriculum, students can decide which pathway to pursue from Year 2. Those interested in IDP can apply for it as a second major at admission to NUS, or choose it after the first semester (i.e. starting from Year 1 Semester 2). Students who successfully complete all the IDP requirements will attain a Second Major in Innovation and Design.

Switching Pathways
Students who find their original choice of pathway unsuitable may switch to another. However, each pathway has certain requirements that cannot be substituted and must be fulfilled within the candidature period. For example, opting to switch to IDP after Year 2 would not be advised, due to the requirement of a multi-year team project.

Experiential Learning
Students get a taste of real-world engineering from the very first semester in our Engineering Principles and Practice modules where concepts are learnt through hands-on experiments that reflect situations they will face outside the classroom. Dedicated teachers facilitate learning in small groups with plenty of opportunities for expression and exchange, just as one would find in professional work settings.

All students also have access to our community makerspace, the Fab Lab, where 3D printers and advanced machine tools allow any creation to be brought to life. Students are encouraged to imagine, tinker and share ideas with one another, and be inspired in return.

Finally, compulsory internships prepare students for entry into the workplace after graduation. Most students would undertake at least 20 weeks of internship in engineering firms (PPP) and research institutes (RFP), while IDP students typically opt for a 12-week stint in start-ups.
Programmes Offered

- Biomedical Engineering
- Chemical Engineering
- Computer Engineering
- Electrical Engineering
- Engineering Science Programme
- Civil Engineering
- Industrial Systems & Engineering
- Materials Science & Engineering
- Mechanical Engineering

Innovation and Design Programme (IDP) as a Second Major

This programme is offered as a second major to capture students both from within and outside NUS Engineering. It is a multidisciplinary programme that builds on a project-based learning approach to develop soft skills, as well as enable students to practice their engineering skills in the context of real-world projects.

Students will take design-focused modules and work with industry or community partners, which will equip them with observation, problem-solving, and product development skills. In addition to strengthening engineering skills, students are also required to read at least 3 elective modules in innovation and enterprise, where they will learn about the innovation process and strategies. By merging innovation and enterprise with engineering design, the IDP aims to challenge students to kickstart their own entrepreneurship journeys.

Global Engineering Programme (GEP)

Under the GEP, students with exceptional potential will be provided an accelerated pathway and enhanced educational experience that develop a global perspective. The objective is to align and nurture the particular strength of this select group of top engineering undergraduates to be engineer-leaders.

Double Degree Programmes

Double degree programmes (DDP) combine two complementary and synergistic disciplines, allowing students to acquire knowledge in an additional sphere while fulfilling the programme requirements of their chosen engineering fields.

- Engineering & Business Administration*
- Engineering & Economics*

* All engineering programmes except the Engineering Science Programme (ESP).

Double Major and Minor Programmes

Students in the Bachelor of Engineering (B.Eng.) degree programmes can pursue a second major alongside their primary major to broaden their knowledge with significant depth. The second major can be from a different Faculty/School, covering areas such as Systems Engineering and Management.

All Engineering undergraduates can opt to study a Minor Programme to gain skills and knowledge beyond their major discipline. Students may study a Minor Programme within Engineering or one offered by a different Faculty/School.

NUS Engineering also offers special programmes that give select students added exposure for practical application and global education.