1 Faculty’s Commitment

The largest faculty in the University with over 6000 undergraduates and about 3000 graduate students, the Faculty of Engineering sees itself as “a leading engineering school that innovates for a better future”, which seeks to “nurture Engineer-Leaders and to address global challenges through research, innovation, inspiration, and influence”.

The Faculty of Engineering has been consistently ranked amongst the top universities in Engineering and Technology by the Times Higher Education Supplement in the UK since 2004. The latest London-based Quacquarelli Symonds Ltd (QS) has placed NUS Engineering as amongst the world’s top 10. By technical subject, QS has also ranked NUS Civil Engineering 7\textsuperscript{th} best in the world whilst NUS Chemical, Electrical, and Mechanical Engineering were ranked 10\textsuperscript{th}. Our mission is to nurture engineer leaders by providing an education that brings out the full potential and talents of students and equipping them with the knowledge and skills to deliver innovative solutions to complex multidisciplinary problems to bring about a better world through innovation and technology.

The Faculty of Engineering provides a number of flexible and innovative alternative learning pathways. The newest of these are the Design-Centric Programme (DCP) and the Global Engineering Programme (GEP). DCP places a strong emphasis on cross-disciplinary and problem based learning whilst GEP provides an enhanced global learning experience, culminating in the opportunity to undertake graduate studies at the NUS Faculty of Engineering or a top overseas university in the fourth year of study. Through the Faculty of Engineering’s Enhancement Programmes, students can choose from a variety of different credit bearing programmes including industrial attachments (local & overseas), short-term internships, technopreneurship programme, innovation programme, undergraduate research opportunities programme, and independent work. These special programmes expose students to the many facets of engineering in a global industry and business setting — from R&D, design, manufacturing, and intellectual property generation and protection, to starting a technology-based business.

Through our Faculty partnerships with industry and leading overseas institutions, our engineering students are ensured exposure to international best practices. As a testimony to the excellent standards of our undergraduate programmes, our degrees are accredited by the Engineering Accreditation Board (EAB) of Singapore, which is a signatory of the Washington Accord. This means that our engineering graduates are recognised as having met the academic requirements for engineering practice in other countries that are also signatories, including Australia, Canada, Hong Kong, Japan, New Zealand, UK, and USA.

Engineer-leaders nurtured by the Faculty through the years have been known for their contributions to technology and innovation. In the early years, the Faculty has advanced in tandem with Singapore’s tremendous growth – from industrialisation in the 1960s and 1970s to high-tech manufacturing in the
1980s and subsequently the knowledge-driven industries from the late 1990s. Today, the Faculty is taking on global challenges, reflected in the disciplines being offered, such as Bioengineering, Civil and Environmental Engineering, Materials & Science Engineering, Engineering Science - together with established disciplines such as Mechanical Engineering and Electrical & Computer Engineering.

Engineering students in their particular disciplines at the Faculty, now explore overarching themes, such as Engineering in Medicine, Future Transportation Systems, Smart, Sustainable Cities as well as Energy Research for Sustainability. The Faculty continues to produce graduates who have made an impact in the field of engineering and beyond. These include Prof Liew Mun Leong, President and Chief Executive Officer, CaptiaLand Group, and Ms Aw Kah Peng, CEO, Singapore Tourism Board, Mr Tan Gee Paw, Chairman of Singapore PUB and Mr Teh Bong Lim, Group Managing Director of MMI Holdings Ltd, amongst many other notable names.

The Faculty of Engineering offers the following degrees in various engineering disciplines:
- BEng (Hons): Bachelor of Engineering degrees – see section 3 for more details.
- BTech (Hons): Bachelor of Technology degrees (part-time) – see section 4 for more details.
- MEng: Master of Engineering – see section 5 for more details.
- MSc: Master of Science – see section 5 for more details.
- PhD: Doctor of Philosophy – see section 5 for more details.

For up to date information on the Faculty, please visit: www.eng.nus.edu.sg.

A Brief History of the Faculty of Engineering

Widely acknowledged to be the leading engineering institution in Singapore, the NUS Faculty of Engineering is also internationally recognised for the calibre of its educational programmes and research initiatives. The Faculty has a rich history, with its origins in 1955 as a professional engineering programme offered at the University of Malaya.

In 1964, a School of Engineering was established in the campus of the Singapore Polytechnic to offer degree courses in Engineering, with the University of Singapore overseeing standards and awarding the BEng degrees. Its first batch of Engineering students graduated in June 1968. The following year, the School of Engineering at the Singapore Polytechnic was constituted as the Faculty of Engineering of the then University of Singapore. The Faculty then comprised the Civil Engineering, Electrical Engineering, and Mechanical Engineering departments.

In 1972, the Department of Industrial & Systems Engineering was established. The undergraduate degree programme in Chemical Engineering which started in the Department of Chemistry in the Faculty of Science in 1975 was transferred to the Faculty of Engineering in 1979. The Faculty of Engineering remained at the Prince Edward Road campus of the polytechnic until the Kent Ridge campus was completed. The Faculty of Engineering within the National University of Singapore was reconstituted in August 1980 with the merger between the University of Singapore and Nanyang University. In response to the nation’s needs, an undergraduate degree programme in environmental engineering was initiated.
by the Department of Chemical Engineering, which subsequently changed its name to the Department of Chemical & Environmental Engineering in 1998.

In July 2000, the Department of Electrical Engineering changed its name to the Department of Electrical & Computer Engineering to reflect its strong research and educational activities in the computer engineering and related areas. The Division of Bioengineering was formed in 2002 and admitted its first batch of bioengineering undergraduate students in that year. In 2003, the Faculty decided to consolidate and enhance the research and educational activities in environmental science and engineering in the Chemical & Environmental Engineering and Civil Engineering departments into a separate Division of Environmental Science & Engineering.

In January 2004, the Chemical Engineering department became the Department of Chemical & Biomolecular Engineering which gives due recognition to the strong biomolecular research and educational activities in the department and to acknowledge the role of biology as an enabling science in chemical engineering. The Department of Materials Science in the Faculty of Science was transferred to the Faculty of Engineering in April 2005. Renamed as the Department of Materials Science & Engineering, it admitted its first batch of students for its bachelor of engineering degree in Materials Science & Engineering in 2005. The Faculty of Engineering teamed up with the Faculty of Science to offer an interdisciplinary programme – the Engineering Science Programme from academic year 2006/2007.

In 2010 the Division of Environmental Science & Engineering merged with the Department of Civil Engineering, to form the Department of Civil & Environmental Engineering.

In 2011, the Division of Bioengineering became a full-fledged department. Another significant milestone in 2011 has been the establishment of the Institute for Engineering Leadership (IEL), which will develop intellectual depth and enhance the engineering leadership potential of individuals and enterprises through research, education, and innovation programmes.