A leading biomedical engineering department advancing knowledge and nurturing talent

To provide quality biomedical engineering education through integration of engineering with the biomedical sciences

To foster new knowledge and achieve leadership in biomedical engineering research through the development of novel technologies and innovative applications

VISION

MISSION

Department of Biomedical Engineering
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www.bioeng.nus.edu.sg

What is the difference between Biomedical Engineering and Biomedical Science/Life Science?

The focus of Life Sciences is on the understanding and discovery of fundamentals in biological and biomedical sciences. In contrast, the focus of Biomedical Engineering is in providing solutions to problems related to human health. As a result, biomedical engineers rely on not only biology and medicine, but also engineering, physics, computer science, and other disciplines to develop, deliver, and innovate new tools, methods, devices, or treatments that advance human health.

What do students learn in Biomedical Engineering?

A Biomedical Engineering education aims to train engineers who can analyze problems from an engineering and biomedical sciences perspective, with a key focus on delivering solutions that address the needs of stakeholders, and that are practical and effective. Our curriculum therefore seeks to educate students with fundamentals and methodologies from electrical, mechanical, chemical, and materials engineering, as applicable to biomedical problems. The study of Biomedical Engineering gives students a solid foundation and the versatility to solve complex problems related to human health.

What kind of jobs are available for Biomedical Engineering graduates?

Our graduates have been well-placed in many organizations, from R&D positions in biotechnology, biomedical device, pharmaceutical companies, to business and management positions in MNCs or start-ups, to hospitals or government agencies, and academic research positions in research institutes and universities. Our biomedical engineering graduates have also entered graduate programs in medicine such as at Duke-NUS.

FAQS

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The Bachelor of Engineering (Biomedical Engineering) Programme is a full-time 4 year undergraduate programme, accredited by the Engineering Accreditation Board (EAB) of Singapore. Our programme is thus recognized globally, and our graduates meet professional standards for engineering practice in countries that participate in the Washington Accord.

REQUIREMENTS FOR ADMISSION:

• H2 Mathematics, and
• H2 Physics or H2 Chemistry
• Students without H2 or H1 Physics need to have ‘O’ level Physics or equivalent and will be required to take specified Physics bridging modules.
• Students who do not have an H2 pass in Chemistry will have to take the Chemistry Bridging Module (CM1417) in their 1st year.
• International applicants with international qualifications can apply using equivalent high-school results.

APPLICATION:

Applicants can apply online via the NUS Office of Admissions website: www.nus.edu.sg/oam/
We are training it as an educated and trained engineer in biomedical engineering. The curriculum is geared towards the biomedical sciences and engineering. As a student, you will have a broad base in both sciences and engineering, with a focus on developing problem-solving skills and understanding the interconnections between the two fields. The curriculum offers a wide range of courses, including Biochemistry, Cell Biology, Biomedical Electronics, Biomechanics, and many more.

- Independent Work Programme (IWP)
- Vacation Internship Programme (VIP)
- Industrial Attachment Programme (IAP)

LIMITLESS OPPORTUNITIES @ NUS

- Dual Degree Programmes with Overseas Universities:
  - École Nationale Supérieure des Télécommunications (ENST), France
  - Indian Institute of Technology (IIT), India
  - National University of Singapore (NUS), Singapore
  - Stanford University (Stanford), USA
  - University of California, Berkeley
  - University of Michigan (Ann Arbor), USA

- Special Programmes:
  - NUS Overseas Internship Programme
  - NUS Overseas Colleges (NOC) Programme
  - NUS-Florida International University (FIU) Dual Degree Programme

- Student Exchange Programme (SEP):
  - Washington University (St. Louis), USA
  - Université Côte d’Azur (France), France
  - École Nationale Supérieure des Télécommunications (ENST), France
  - Indian Institute of Technology (IIT), India
  - National University of Singapore (NUS), Singapore
  - Stanford University (Stanford), USA
  - University of California, Berkeley
  - University of Michigan (Ann Arbor), USA

With solid foundation in breadth and in depth, our students have the confidence, the abilities, and the flexibility to solve tomorrow’s problems. They are ready to excel in tomorrow’s workplace.

A significant part of the curriculum is dedicated to professional development. This includes courses on ethics, leadership, teamwork, and management. These courses are designed to prepare students for successful careers in diverse organizations.

NUS Biomedical Engineering alumni have gone on to successful careers in academia, industry, and government agencies. Many of our graduates pursue academic careers or continue their work in industry, with a focus on innovation and entrepreneurship. The undergraduate Biomedical Engineering programme is designed to provide a solid foundation in biomedical sciences and engineering, prepare students for graduate studies, and equip them with the skills and knowledge needed for success in a variety of fields. We are proud that our graduates have contributed not only to the advancement of the biomedical field but also to the betterment of human health.