MATERIALS ENGINEERING WITH A SECOND MAJOR IN MEDICAL BIOLOGY
Biomedical and biological materials science is a new and emerging field at the interface of materials science and biology. The emergence of the discipline is due in part to the advent of regenerative medicine, which requires biomaterials that interact with the body in a specific and predictable manner. In today’s world, materials designed for usage with biological systems as well as materials derived from biological systems for medical and other applications are rising in importance. To fully participate in the exciting new sphere, a strong foundation in both materials science and medical biology is essential.

ACADEMIC STRUCTURE

The structure of the Bachelor of Materials Engineering with a Second Major in Medical Biology programme integrates the requirements of both majors within the typical candidature of 4 years. Students must meet all the requirements for the Bachelor of Materials Engineering programme and fulfill the following conditions:

1. complete a Biomaterials-related Final Year Project; and
2. choose at least two major prescribed electives from the following list:

   - Advanced Analysis of Materials
   - Biomedical Devices
   - Biomedical Materials
   - Drug Delivery and Tissue Engineering

In addition, students will read the following compulsory courses for the Second Major in Medical Biology programme:

- Biophysical Chemistry
- Biochemistry I
- Biometrics and Statistics
- Experimental Molecular and Cell Biology
- Introductory Biology
- Molecular and Cell Biology I
- Molecular and Cell Biology II
- Physiology
- Undergraduate Advanced Experimental Biology (UAEB) Workshop (Series I) – Applied Biophysics
- Undergraduate Advanced Experimental Biology (UAEB) Workshop (Series I) – Methods in Histology

Possible Career Paths

- Biomedical engineer
- MedTech Analyst
- R&D professional / manager
- Regulatory scientist
- Scientist
- Technical Specialist
- Technopreneur / Innovator

Sectors/Industries

- Biotechnology firms
- Consumer goods
- Food and nutrition
- Healthcare
- Pharmaceutical
- Research and development
- Scientists
- Technical specialists
- Technopreneurs / Innovators
- Biomedical engineer
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TUITION FEES AND SCHOLARSHIPS

The tuition fees for the Bachelor of Materials Engineering with a Second Major in Medical Biology programme will be pegged to the fees for Bachelor of Engineering programmes. Eligible students may be considered for scholarships that offer fully subsidised tuition fees and living allowances. Terms and conditions apply. For more information on tuition fees and scholarships, please visit http://admissions.ntu.edu.sg.

ACCRREDITATION

All Bachelor of Engineering programmes offered by the College of Engineering are accredited by The Institution of Engineers Singapore, the Singapore signatory to the Washington Accord, through its Engineering Accreditation Board. The Washington Accord is an international agreement for mutual recognition of substantial equivalence of engineering academic programmes worldwide in satisfying the academic requirements for the practice of engineering at a professional level.

INFORMATION AND ENQUIRIES

For more information and enquiries on the Bachelor of Materials Engineering with a Second Major in Medical Biology programme, please visit http://coe.ntu.edu.sg/medbio.
Admission Enquiries
Office of Admissions and Financial Aid
Nanyang Technological University,
Student Services Centre, Level 3
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Email (for international admissions): Adm_intnl@ntu.edu.sg
Email (for scholarships): ug_scholarships@ntu.edu.sg

Website: www.ntu.edu.sg/admissions

Programme Enquiries
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Website: www.mse.ntu.edu.sg

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