

REQUIREMENTS FOR COHORT AY2025/2026 ONWARDS	Units
COMMON CURRICULUM	40
General Education*	24
Cultures and Connections (basket of courses)	4
Communities and Engagement (basket of courses)	4
Critique and expression (ES2631 Critique and Communication of Thinking and Design)	4
Digital literacy (CS1010E Programming methodology)	4
Data literacy (GEA1000 Quantitative reasoning with data)	4
Singapore Studies (CDE2501 Liveable Cities)	4
CDE Common curriculum	16
EE2211 introduction to machine learning	4
EG1311 Design and make	4
PF1101A Project Management and Finance	4
DTK1234 Design thinking	4
MAJOR REQUIREMENTS	80
Engineering Core	20
MA1511 Engineering Calculus	2
CE2407A Uncertainty Analysis for Engineers	2
CE2407B Introduction to Numerical Methods for Engineers	2
MA1513 Linear Algebra with Differential Equations	2
EG2401A Engineering Professionalism	2
EG3611A Industrial Attachment**	10
BME Major Programme	60
BN1112 Introduction to biomedical design and manufacturing	4
BN2104 Medical Technology in Public and Global Health	4
BN2105 Medical Device Life Cycle Management	4
BN2112 Cell biology and analytics for engineers	4
BN2201 Quantitative Physiology for Bioengineers	4
BN2204 Fundamentals of Biomechanics	4
BN2301 Biochemistry and Biomaterials for Bioengineers	4
BN2404 Biomedical Circuits and Signal Processing	4
BN3101A Biomedical Engineering Design	4
BN3405 Biomedical Instrumentation	4
BN3406 Biomedical imaging and AI applications	4
BN4101 B. Eng dissertation (Final Year Project)	8
BME Technical Electives	8
UNRESTRICTED ELECTIVES	40
TOTAL	160

* Some of specific courses indicated here might differ for students in residential colleges

** Please note that there are alternative options to EG3611A. These include:

- EG3612 Vacation Internship Programme (6 units) + [CDE2605 undergraduate Research Opportunities](#) (4 units)
- EG3612 Vacation Internship Programme (6 units) + [CDE2605R undergraduate Research Experience](#) (4 units)
- EG3612 Vacation Internship Programme (6 units) + CFG2101 NUS Vacation Internship Programme (4 units)
- Embarking in the [NUS Overseas College Programme](#)

List of BME technical electives (all 4 units)

BN2001 Independent Study
BN3202 Musculo-Skeletal Biomechanics
BN3301 Introduction to Biomaterials
BN3402 Bio-Analytics for Engineers
BN3501 Equilibrium & Kinetic Bioprocesses
BN4102 Gerontechnology in Ageing
BN4103 Assistive Technology for Persons with Disability
BN4108 Biomedical engineering for global health
BN4109 Special Topics in Bioengineering
BN4202 Biofluids Dynamics
BN4203 Robotics in Rehabilitation
BN4206 Computational methods in Biomedical Engineering
BN4301 Principles of Tissue Engineering
BN4302 Organs in a Dish: Organoid Bioengineering
BN4303 Tissue Engineering for Designing Food
BN4304 Engineering Strategies for Gene and Cell Manufacturing
BN4402 Electrophysiology
BN4403 Cellular Bioengineering
BN4404 Biomicroelectromechanical Systems-BioMEMs
BN4406 Biophotonics and Bioimaging
BN4501 Engineering Biology
BN4601 Intelligent Medical Robotics
BN4701 Serious Games for Health