

Biomedical Engineering

AY2025 cohort

Accurate as of June 2025

E-Scholars 3-years schedule (BME)		
Semester 0 (APT)		
EG1311 Design and Make		4
MA1505 Mathematics I (4 units. It is mapped to MA1511 which is 2 units, + 2 units to UE)		4
CS1010E Programming Methodology		4
Sub-total		12
Semester 1	Semester 2	
GEA1000 Quantitative Reasoning	BN2204 Fundamentals of Biomechanics	4
DTK1234 Design Thinking	BN2112 Molecular Cell Biology for Biomedical Engineers	4
MA1513 Linear Algebra with Differential Equations	CE2407B Introduction to Numerical Methods for Engineers	2
PF1101A Project Management and Finance	UTCP #2	4
BN1112 Introduction to Biomedical Design and Manufacturing	UE	4
CE2407A Engineering Uncertainty Analysis	UE	4
UTCP #1	UE	4
Sub-total	24	26
Semester 3	Semester 4	
BN2104 Quantitative approaches to public and global health	NUS Overseas College (NOC) experience (20 units)*	20
BN2105 Medical Device Life Cycle Management		
BN2301 Biochemistry and Biomaterials for Bioengineers		
BN3101A Biomedical Engineering Design		
EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence		
UTCP #3 (Replaces CDE2501)		
UE		4
Sub-total	28	20
Semester 5	Semester 6	
BN4101 B.Eng Dissertation	BN4101 B.Eng Dissertation	4
BN2201 Quantitative Physiology for Bioengineers	BN3405 Biomedical Instrumentation	4
BN2404 Biomedical Circuits and Signal Processing	BN3406 Biomedical imaging and AI medical applications	4
Technical Elective	Technical Elective	4
UTCP #4	UE	4
UE	UE	4
UE*		2
Sub-total	26	24
Grand total		160

Notes:

1. If APT courses are not cleared, those courses (EG1311, MA1511, CS1010E) must be cleared during the normal semesters

2. Important rules for NOC:

- You MUST be in Singapore for Visa processing the semester BEFORE going to NOC.

- You MUST have cleared at least 70 units before applying to NOC

3. *If not embarking on NOC, alternate course combinations to fulfil Industrial Attachment requirement (10 units) include:

a) EG3611A Industrial Attachment (10 units)

b) EG3612 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CDE2605 Undergraduate Research Opportunity (4 units)

c) EG3612 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CFG2101 NUS Vacation Internship Programme (4 units) Note that EG3612 and EG3611A can be done as long as you have cleared 60 units.

d) EG3612 Vacation Industrial Attachment / ETP3205 Innovation & Enterprise Internship (6 units) + CDE2605R Undergraduate Research Experience (4 units)

Note that UROP (CDE2605) may be taken in any regular semester or special term as long as you are at seniority 2.

4. If you wish to read Common Curriculum courses before your department's recommended semester, please submit an appeal or select the courses from Round 2.

- courses that require appeal: DTK1234, GEA1000, please email:

DTK1234 - dtk1234@nus.edu.sg

GEA1000 - qradmin@nus.edu.sg