

# Biomedical Engineering

AY2025 cohort

Accurate as of July 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
<b>Sub-total</b>			12
Semester 1		Semester 2	
GEA1000 Quantitative Reasoning	4	BN2204 Fundamentals of Biomechanics	4
DTK1234 Design Thinking	4	BN2112 Molecular Cell Biology for Biomedical Engineers	4
MA1513 Linear Algebra with Differential Equations	2	CE2407B Introduction to Numerical Methods for Engineers	2
PF1101A Fundamentals of Project Management and Finance	4	UTCP #2	4
BN1112 Introduction to Biomedical Design and Manufacturing	4	UE	4
CE2407A Engineering Uncertainty Analysis	2	UE	4
UTCP #1	4	UE	4
<b>Sub-total</b>	24	<b>Sub-total</b>	26
Semester 3		Semester 4	
BN2104 Quantitative approaches to public and global health	4	NUS Overseas College (NOC) experience (20 units)*	20
BN2105 Medical Device Life Cycle Management	4		
BN2301 Biochemistry and Biomaterials for Bioengineers	4		
BN3101A Biomedical Engineering Design	4		
EE2211 Introduction to Machine Learning or EE2213 Introduction to Artificial Intelligence	4		
UTCP #3 (Replaces CDE2501)	4		
UE	4		
<b>Sub-total</b>	28	<b>Sub-total</b>	20
Semester 5		Semester 6	
BN4101 B.Eng Dissertation	4	BN4101 B.Eng Dissertation	4
BN2201 Quantitative Physiology for Bioengineers	4	BN3405 Biomedical Instrumentation	4
BN2404 Biomedical Circuits and Signal Processing	4	BN3406 Biomedical imaging and AI medical applications	4
Technical Elective	4	Technical Elective	4
UTCP #4	4	UE	4
UE	4	UE	4
UE*	2		
<b>Sub-total</b>	26	<b>Sub-total</b>	24
<b>Grand total</b>			<b>160</b>

## 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