2023 Cohort Students (BME stream)

1. Students in BME who have Level 2 or above in HKDSE Physics/Combined Science with Physics:

Year 1	
Semester 1 (16 credits OR 19 credits†)	**Semester 2 (16 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
ABCT1700 Introduction to Chemistry (3 credits) † Refer to the note at the bottom	ABCT1741 General Chemistry I (3 credits) † Refer to the note at the bottom
ABCT2333 Human Physiology (3 credits)	ABCT2334 Human Pathophysiology (3 credits)
AMA1110 Basic Mathematics I – Calculus, Probability, and Statistics (3 credits)	AMA1120 Basic Mathematics II – Calculus and Linear Algebra (3 credits)
AP10005 Physics I (3 credits)	AP10006 Physics II (3 credits)
EIE1005 Fundamental AI and Data Analytics (2 credits)	APSS1L01 Tomorrow's Leader (3 credits)
MM1031 Introduction to Innovation and Entrepreneurship (1 credit)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
LCR I: English (3 credits)	
Healthy Lifestyle (0 credits)	
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (14 credits)	**Semester 2 (16 credits)**
AMA2511 Applied Mathematics I (2 credits)	ELC3525 Scientific Communication for BME Students (2 credits)
LCR II: English (3 credits)	AMA2512 Applied Mathematics II (2 credits)
BME21148 Biomedical Electronics (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
ENG2002 Computer Programming (3 credits)	BME21151 Engineering Design & Biomechatronics (3 credits)
LCR III: Chinese (3 credits)	BME21153 Medical Device Regulation (3 credits)
	CAR I (3 credits) (with CR/CW) #
Year 3	
Semester 1 (18 credits)	**Semester 2 (15 credits)**
BME31147 Biomedical Engineering Innovation for the Community (3 credits)	
BME Elective I (3 credits) * BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) ^	
BME31150 Medical Instrumentation & Equipment (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31116 Biosignal Processing (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31125 Biomechanics (3 credits)	BME Elective III (3 credits) *
BME Elective II (3 credits) *	CLC3241P Professional Communication in Chinese (2 credits)
Free Elective (3 credits) #	Capstone Project (1 credit)
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (14 credits)	**Semester 2 (12 credits)**
BME41118 Capstone Project (2 + 3 credits)	
BME Elective IV (3 credits) *	BME Elective VI (3 credits) *
BME Elective V (3 credits) *	BME Elective VII (3 credits) *
CAR II (3 credits) (with ER/EW) #	CAR IV (3 credits) #
CAR III (3 credits) #	

Total Number of Credits: 121 Academic + 5 IC Training + 4 WIE Training

† Students who do not have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1741 General Chemistry I.

The suggested semesters for CAR subjects and Free Elective can be changed if it is allowed by Academic Advisor.

*Students need to register for BME Elective subjects by themselves. If students want to take subjects in other PolyU departments to be counted as BME electives, please strictly follow the inductions set by the Department.

^ BME42154 Digital Design and Fabrication for Healthcare Services will be offered in alternative years (i.e., 2023/24 & 2025/26 Academic Years).

2023 Cohort Students (BME stream)

2. Students in BME who do not have Level 2 or above in HKDSE Physics/Combined Science with Physics:

Year 1	
Semester 1 (16 credits OR 19 credits†)	**Semester 2 (16 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
ABCT1700 Introduction to Chemistry (3 credits) † Refer to the note at the bottom	ABCT1741 General Chemistry I (3 credits) † Refer to the note at the bottom
ABCT2333 Human Physiology (3 credits)	ABCT2334 Human Pathophysiology (3 credits)
AMA1110 Basic Mathematics I – Calculus, Probability, and Statistics (3 credits)	AMA1120 Basic Mathematics II – Calculus and Linear Algebra (3 credits)
AP10001 Introduction to Physics (3 credits) ††	AP10006 Physics II (3 credits)
EIE1005 Fundamental AI and Data Analytics (2 credits)	APSS1L01 Tomorrow's Leader (3 credits)
MM1031 Introduction to Innovation and Entrepreneurship (1 credit)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
LCR I: English (3 credits)	
Healthy Lifestyle (0 credits)	
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (17 credits)	**Semester 2 (16 credits)**
AMA2511 Applied Mathematics I (2 credits)	ELC3525 Scientific Communication for BME Students (2 credits)
AP10005 Physics I (3 credits)	AMA2512 Applied Mathematics II (2 credits)
LCR II: English (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
BME21148 Biomedical Electronics (3 credits)	BME21151 Engineering Design & Biomechatronics (3 credits)
ENG2002 Computer Programming (3 credits)	BME21153 Medical Device Regulation (3 credits)
LCR III: Chinese (3 credits)	CAR I (3 credits) (with CR/CW) #
Year 3	
Semester 1 (15 credits)	**Semester 2 (15 credits)**
BME31147 Biomedical Engineering Innovation for the Community (3 credits)	
BME Elective I (3 credits) *	BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) ^
BME31150 Medical Instrumentation & Equipment (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31116 Biosignal Processing (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31125 Biomechanics (3 credits)	BME Elective III (3 credits) *
BME Elective II (3 credits) *	CLC3241P Professional Communication in Chinese (2 credits)
	Capstone Project (1 credit)
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (14 credits)	**Semester 2 (12 credits)**
BME41118 Capstone Project (2 + 3 credits)	
BME Elective IV (3 credits) *	BME Elective VI (3 credits) *
BME Elective V (3 credits) *	BME Elective VII (3 credits) *
CAR II (3 credits) (with ER/EW) #	Free Elective (3 credits) #
CAR III (3 credits) #	

Total Number of Credits: 121 Academic + 5 IC Training + 4 WIE Training

† Students who do not have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1741 General Chemistry I.

†† AP10001 Introduction to Physics is a double-fulfillment subject of DSR and CAR D. This means students completing AP10001 do not need to take another CAR D subject.

The suggested semesters for CAR subjects and Free Elective can be changed if it is allowed by Academic Advisor.

*Students need to register for BME Elective subjects by themselves. If students want to take subjects in other PolyU departments to be counted as BME electives, please strictly follow the inductions set by the Department.

^ BME42154 Digital Design and Fabrication for Healthcare Services will be offered in alternative years (i.e., 2023/24 & 2025/26 Academic Years).

BME Electives Offering Pattern

Semester 1 (BME Electives Offered)					Semester 2 (BME Elective Offered)				
Subjects	**23-24**	**24-25**	**25-26**	**26-27**	**Subjects**	**23-24**	**24-25**	**25-26**	**26-27**
BME32115 Biosensors: Theories and Biomedical Applications	√	√	√	√	BME32152 Clinical Engineering and Medical Technology Management	√	√	√	√
BME42129 Neuroengineering	√	√	√	√	BME42113 Biomedical Imaging	√	√	√	√
BME34145 AIDA for Health Care and Smart Aging	√	√	√	√	BME42154 Digital Design and Fabrication for Healthcare Services (Consecutive Sub: Sem 1 → Sem 2) *	√		√	
BME44144 AIDA for Biosignal Processing and Medical Imaging		√	√	√	BME32138 Cellular Engineering	√	√	√	√
BME42154 Digital Design and Fabrication for Healthcare Services (Consecutive Sub: Sem 1 → Sem 2) *	√		√		BME34143 MedTech Innovation and Entrepreneurship	√	√	√	√

** BME42154 to be offered in alternative years.*

(Aug 2023)

2023 Cohort Students (BME with P&O stream)

1. Students in BME who have Level 2 or above in HKDSE Physics/Combined Science with Physics:

Year 1	
Semester 1 (16 credits OR 19 credits†)	**Semester 2 (16 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
ABCT1700 Introduction to Chemistry (3 credits) † Refer to the note at the bottom	ABCT1741 General Chemistry I (3 credits) † Refer to the note at the bottom
ABCT2333 Human Physiology (3 credits)	ABCT2334 Human Pathophysiology (3 credits)
AMA1110 Basic Mathematics I – Calculus, Probability, and Statistics (3 credits)	AMA1120 Basic Mathematics II – Calculus and Linear Algebra (3 credits)
AP10005 Physics I (3 credits)	AP10006 Physics II (3 credits)
EIE1005 Fundamental AI and Data Analytics (2 credits)	APSS1L01 Tomorrow's Leader (3 credits)
MM1031 Introduction to Innovation and Entrepreneurship (1 credit)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
LCR I: English (3 credits)	
Healthy Lifestyle (0 credits)	
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (17 credits)	**Semester 2 (16 credits)**
AMA2511 Applied Mathematics I (2 credits)	ELC3525 Scientific Communication for BME Students (2 credits)
BME21148 Biomedical Electronics (3 credits)	AMA2512 Applied Mathematics II (2 credits)
ENG2002 Computer Programming (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
HSS2011 Human Anatomy (3 credits)	BME21151 Engineering Design & Biomechatronics (3 credits)
LCR II: English (3 credits)	BME21153 Medical Device Regulation (3 credits)
LCR III: Chinese (3 credits)	CAR I (3 credits) (with CR/CW) #
Year 3	
Semester 1 (16 credits)	**Semester 2 (18 credits)**
BME31147 Biomedical Engineering Innovation for the Community (3 credits)	
Free Elective (3 credits) BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) ^	
BME31150 Medical Instrumentation & Equipment (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31116 Biosignal Processing (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31125 Biomechanics (3 credits)	Capstone Project (1 credit)
P&O Elective I (4 credits) BME32155 Below-Knee Prosthetics	P&O Elective II (4 credits) BME42158 Above-Knee Prosthetics
	P&O Elective III (4 credits) BME42161 Upper Limb Prosthetics
Summer Term: BME31206 Biomedical Engineering Clinical Attachment I (4 credits)	
Year 4	
Semester 1 (16 credits)	**Semester 2 (16 credits)**
BME41118 Capstone Project (2 + 3 credits)	
P&O Elective IV (4 credits) BME32156 Pedorthics, Foot, and Ankle-Foot Orthotics	P&O Elective VI (4 credits) BME42159 Knee and Above-Knee Orthotics
P&O Elective V (4 credits) BME32157 Upper Limb Orthotics	P&O Elective VII (4 credits) BME42160 Spinal Orthotics
CAR III (3 credits) (with ER/EW) #	CLC3241P Professional Communication in Chinese (2 credits)
CAR IV (3 credits) #	CAR II (3 credits) #
Summer Term: BME41207 Biomedical Engineering Clinical Attachment II (4 credits)	

Total Number of Credits: 131 Academic + 5 IC Training + 8 WIE Training

† Students who do not have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1741 General Chemistry I.

The suggested semesters for CAR subjects and Free Elective can be changed if it is allowed by Academic Advisor.

^ P&O students are recommended to take BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) as a Free Elective. BME42154 will be offered in alternative years (i.e., 2023/24 & 2025/26 Academic Years).

2023 Cohort Students (BME with P&O stream)

2. Students in BME who do not have Level 2 or above in HKDSE Physics/Combined Science with Physics:

Year 1	
Semester 1 (16 credits OR 19 credits†)	**Semester 2 (16 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
ABCT1700 Introduction to Chemistry (3 credits) † Refer to the note at the bottom	ABCT1741 General Chemistry I (3 credits) † Refer to the note at the bottom
ABCT2333 Human Physiology (3 credits)	ABCT2334 Human Pathophysiology (3 credits)
AMA1110 Basic Mathematics I – Calculus, Probability, and Statistics (3 credits)	AMA1120 Basic Mathematics II – Calculus and Linear Algebra (3 credits)
AP10001 Introduction to Physics (3 credits) ††	AP10006 Physics II (3 credits)
EIE1005 Fundamental AI and Data Analytics (2 credits)	APSS1L01 Tomorrow's Leader (3 credits)
MM1031 Introduction to Innovation and Entrepreneurship (1 credit)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
LCR I: English (3 credits)	
Healthy Lifestyle (0 credits)	
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (20 credits)	**Semester 2 (16 credits)**
AMA2511 Applied Mathematics I (2 credits)	ELC3525 Scientific Communication for BME Students (2 credits)
AP10005 Physics I (3 credits)	AMA2512 Applied Mathematics II (2 credits)
BME21148 Biomedical Electronics (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
ENG2002 Computer Programming (3 credits)	BME21151 Engineering Design & Biomechatronics (3 credits)
HSS2011 Human Anatomy (3 credits)	BME21153 Medical Device Regulation (3 credits)
LCR II: English (3 credits)	CAR I (3 credits) (with CR/CW) #
LCR III: Chinese (3 credits)	
Year 3	
Semester 1 (16 credits)	**Semester 2 (18 credits)**
BME31147 Biomedical Engineering Innovation for the Community (3 credits)	
Free Elective (3 credits) BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) ^	
BME31150 Medical Instrumentation & Equipment (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31116 Biosignal Processing (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31125 Biomechanics (3 credits)	Capstone Project (1 credit)
P&O Elective I (4 credits) BME32155 Below-Knee Prosthetics	P&O Elective II (4 credits) BME42158 Above-Knee Prosthetics
	P&O Elective III (4 credits) BME42161 Upper Limb Prosthetics
Summer Term: BME31206 Biomedical Engineering Clinical Attachment I (4 credits)	
Year 4	
Semester 1 (16 credits)	**Semester 2 (13 credits)**
BME41118 Capstone Project (2 + 3 credits)	
P&O Elective IV (4 credits) BME32156 Pedorthics, Foot, and Ankle-Foot Orthotics	P&O Elective VI (4 credits) BME42159 Knee and Above-Knee Orthotics
P&O Elective V (4 credits) BME32157 Upper Limb Orthotics	P&O Elective VII (4 credits) BME42160 Spinal Orthotics
CAR II (3 credits) #	CLC3241P Professional Communication in Chinese (2 credits)
CAR III (3 credits) (with ER/EW) #	
Summer Term: BME41207 Biomedical Engineering Clinical Attachment II (4 credits)	

Total Number of Credits: 131 Academic + 5 IC Training + 8 WIE Training

† Students who do not have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 3 or above in HKDSE Chemistry/Combined Science with Chemistry should take ABCT1741 General Chemistry I.

†† AP10001 Introduction to Physics is a double-fulfillment subject of DSR and CAR D. This means students completing AP10001 do not need to take another CAR D subject.

The suggested semesters for CAR subjects and Free Elective can be changed if it is allowed by Academic Advisor.

^ P&O students are recommended to take BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) as a Free Elective. BME42154 will be offered in alternative years (i.e., 2023/24 & 2025/26 Academic Years).

P&O Electives Offering Pattern*

Semester 1 (P&O Electives Offered)					Semester 2 (P&O Electives Offered)				
Subjects	**23-24**	**24-25**	**25-26**	**26-27**	**Subjects**	**23-24**	**24-25**	**25-26**	**26-27**
BME32156 Pedorthics, Foot, and Ankle-Foot Orthotics (4 credits)		√		√	BME42159 Knee and Above-Knee Orthotics (4 credits)		√		√
BME32157 Upper Limb Orthotics (4 credits)		√		√	BME42160 Spinal Orthotics (4 credits)		√		√
BME32155 Below-Knee Prosthetics (4 credits)	√		√		BME42158 Above-Knee Prosthetics (4 credits)	√		√	
					BME42161 Upper Limb Prosthetics (4 credits)	√		√	

**P&O subjects to be offered in alternative years.*

(Aug 2023)

Senior Year Curriculum[@] *(new pattern)*

Year 3	
Semester 1 (19 credits)	**Semester 2 (19 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
BME1Q01 Essential Components of General Education (0 credit)	
ABCT2333 Human Physiology (3 credits)	ABCT2334 Human Pathophysiology (3 credits)
BME31114 Biomedical Instrumentation and Sensors (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31116 Biosignal Processing (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31125 Biomechanics (3 credits)	BME Elective III (3 credits) *
BME Elective I (3 credits) *	BME21153 Medical Device Regulation (3 credits)
BME Elective II (3 credits) *	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
	ELC3525 Scientific Communication for BME Students (2 credits)
	Capstone Project (1 credit)
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 4	
Semester 1 (16 credits)	**Semester 2 (15 credits)**
BME31147 Biomedical Engineering Innovation for the Community (3 credits)	
BME41118 Capstone Project (2 + 3 credits)	
BME Elective IV (3 credits) BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) ^	
BME Elective V (3 credits) *	BME Elective VI (3 credits) *
CLC3241P Professional Communication in Chinese (2 credits)	BME Elective VII (3 credits) *
CAR I (3 credits) (with ER/EW) [#]	Free-elective (3 credits)
CAR II (3 credits) (with CR/CW) [#]	
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 credits)	

Total Number of Credits = 69 Academic + 5 IC Training + 4 WIE Training

[@] The study pattern of senior year students is for reference only as it may vary from student to student according to the entry credit transfer granted

[#] The suggested semesters for CAR subjects and Free Elective can be changed if it is allowed by Academic Advisor.

*Students need to register for BME Elective subjects by themselves. If students want to take subjects in other PolyU departments to be counted as BME electives, please strictly follow the inductions set by the Department.

^ BME42154 Digital Design and Fabrication for Healthcare Services will be offered in alternative years (i.e., 2023/24 & 2025/26 Academic Years).