

2021 Cohort Students

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
ABCT2331 Human Biology for Biomedical Engineering I (3 credits)	ABCT2332 Human Biology for Biomedical Engineering II (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)
ENG1003 Freshman Seminar for Engineering (3 credits)	LCR II: English (3 credits)
LCR I: English (3 credits)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
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)	AMA2512 Applied Mathematics II (2 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
BME21148 Biomedical Electronics (3 credits)	BME21151 Engineering Design & Biomechanics (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) [#]
	ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)
Year 3	
Semester 1 (18 credits)	Semester 2 (18 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) [^]	
BME31116 Biosignal Processing (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31125 Biomechanics (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31150 Medical Instrumentation & Equipment (3 credits)	BME Elective III (3 credits)
BME Elective II (3 credits)	BME Elective IV (3 credits)
Free Elective (3 credits) [#]	Capstone Project (1 credit)
	CLC3241P Professional Communication in Chinese (2 credits)
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (11 credits)	Semester 2 (12 credits)
BME41118 Capstone Project (2 + 3 credits)	
BME Elective V (3 credits)	BME Elective VI (3 credits)*
CAR II (3 credits) (with ER/EW) [#]	BME Elective VII (3 credits)*
CAR III (3 credits) [#]	CAR IV (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 are recommended to take BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) in Year 3 as BME Elective.

2021 Cohort Students

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
ABCT2331 Human Biology for Biomedical Engineering I (3 credits)	ABCT2332 Human Biology for Biomedical Engineering II (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)
ENG1003 Freshman Seminar for Engineering (3 credits)	LCR II: English (3 credits)
LCR I: English (3 credits)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
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)	AMA2512 Applied Mathematics II (2 credits)
AP10005 Physics I (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21151 Engineering Design & Biomechanics (3 credits)
BME21148 Biomedical Electronics (3 credits)	BME21153 Medical Device Regulation (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW) [#]
LCR III: Chinese (3 credits)	ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)
Year 3	
Semester 1 (18 credits)	Semester 2 (18 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) [^]	
BME31116 Biosignal Processing (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31125 Biomechanics (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31150 Medical Instrumentation & Equipment (3 credits)	BME Elective III (3 credits)
BME Elective II (3 credits)	BME Elective IV (3 credits)
Free Elective (3 credits) [#]	Capstone Project (1 credit)
	CLC3241P Professional Communication in Chinese (2 credits)
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (11 credits)	Semester 2 (9 credits)
BME41118 Capstone Project (2 + 3 credits)	
BME Elective V (3 credits)	BME Elective VI (3 credits) [*]
CAR II (3 credits) (with ER/EW) [#]	BME Elective VII (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 are recommended to take BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) in Year 3 as BME Elective.

BME Electives Offering Pattern

Semester 1 (BME Electives Offered)					Semester 2 (BME Elective Offered)				
Subjects	22-23	23-24	24-25	25-26	Subjects	22-23	23-24	24-25	25-26
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 è 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 è Sem 2) *		√		√	BME34143 MedTech Innovation and Entrepreneurship		√	√	√

* BME42154 to be offered in alternative years.

(Aug 2022)

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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
ABCT2331 Human Biology for Biomedical Engineering I (3 credits)	ABCT2332 Human Biology for Biomedical Engineering II (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)
ENG1003 Freshman Seminar for Engineering (3 credits)	LCR II: English (3 credits)
LCR I: English (3 credits)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
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)	AMA2512 Applied Mathematics II (2 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
BME21148 Biomedical Electronics (3 credits)	BME21151 Engineering Design & Biomechanics (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)
HSS2011 Human Anatomy (3 credits)	ELC3523 Scientific Writing for Biomedical Engineering Students (2 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) ^	
BME31116 Biosignal Processing (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31125 Biomechanics (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31150 Medical Instrumentation & Equipment (3 credits)	P&O Elective II (4 credits) BME42158 Above-Knee Prosthetics
P&O Elective I (4 credits) BME32155 Below-Knee Prosthetics	P&O Elective III (4 credits) BME42161 Upper Limb Prosthetics
Capstone Project (1 credit)	
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 II (3 credits) (with ER/EW) #	CAR IV (3 credits) #
CAR III (3 credits) #	CLC3241P Professional Communication in Chinese (2 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 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) in Year 3 as Free Elective.

2021 Cohort Students

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
ABCT2331 Human Biology for Biomedical Engineering I (3 credits)	ABCT2332 Human Biology for Biomedical Engineering II (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)
ENG1003 Freshman Seminar for Engineering (3 credits)	LCR II: English (3 credits)
LCR I: English (3 credits)	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
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)	AMA2512 Applied Mathematics II (2 credits)
AP10005 Physics I (3 credits)	BME21149 Biomaterials Science and Engineering (3 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21151 Engineering Design & Biomechanics (3 credits)
BME21148 Biomedical Electronics (3 credits)	BME21153 Medical Device Regulation (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW)
LCR III: Chinese (3 credits)	ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)
HSS2011 Human Anatomy (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) ^	
BME31116 Biosignal Processing (3 credits)	BME31103 Applied Electrophysiology (3 credits)
BME31125 Biomechanics (3 credits)	BME31134 Rehabilitation Engineering and Assistive Technology (3 credits)
BME31150 Medical Instrumentation & Equipment (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) (with ER/EW) #	CLC3241P Professional Communication in Chinese (2 credits)
CAR III (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.

†† 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 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) in Year 3 as Free Elective.

P&O Electives Offering Pattern*

Semester 1 (P&O Electives Offered)					Semester 2 (P&O Electives Offered)				
Subjects	22-23	23-24	24-25	25-26	Subjects	22-23	23-24	24-25	25-26
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 2022)

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)	
ABCT2331 Human Biology for Biomedical Engineering I (3 credits)	ABCT2332 Human Biology for Biomedical Engineering II (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)
	Capstone Project (1 credit)
	ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)
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.

[^] Students are recommended to take BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) as BME Elective.