2020 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)	IC2135 Material Processing and Technical Communication (1 training credit)
Healthy Lifestyle (0 credits)	
Summer Term: IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME21111 Biomedical Engineering Research and Design Studies I (3 credits)	
ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)	
AMA2511 Applied Mathematics I (2 credits)	AMA2512 Applied Mathematics II (2 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW) #
LCR III: Chinese (3 credits)	CAR II (3 credits) #
Year 3	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME31142 Biomedical Engineering Research and Design Studies II – Engineer for the Community (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 II (3 credits)
BME Elective I (3 credits)	BME Elective III (3 credits)
Free Elective (3 credits) #	CAR III (3 credits) (with ER/EW)#
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (11 credits)	**Semester 2 (12 credits)**
BME41118 Capstone Project (6 credits)	
BME Elective IV (3 credits)	BME41141 Medical Technology Management and Regulation (3 credits)
BME Elective V (3 credits)	BME Elective VI (3 credits)
CLC3241P Professional Communication in Chinese (2 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.

2020 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)	IC2135 Material Processing and Technical Communication (1 training credit)
Healthy Lifestyle (0 credits)	
Summer Term: IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (19.5 credits)	**Semester 2 (16.5 credits)**
BME21111 Biomedical Engineering Research and Design Studies I (3 credits)	
ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)	
AMA2511 Applied Mathematics I (2 credits)	AMA2512 Applied Mathematics II (2 credits)
AP10005 Physics I (3 credits)	
APSS1L01 Tomorrow's Leader (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW) #
LCR III: Chinese (3 credits)	CAR II (3 credits) #
Year 3	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME31142 Biomedical Engineering Research and Design Studies II – Engineer for the Community (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 II (3 credits)
BME Elective I (3 credits)	BME Elective III (3 credits)
Free Elective (3 credits) #	CAR III (3 credits) (with ER/EW)#
Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 training credits)	
Year 4	
Semester 1 (11 credits)	**Semester 2 (9 credits)**
BME41118 Capstone Project (6 credits)	
BME Elective IV (3 credits)	BME41141 Medical Technology Management and Regulation (3 credits)
BME Elective V (3 credits)	BME Elective VI (3 credits)
CLC3241P Professional Communication in Chinese (2 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.

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	√	√	√	√	BME32140 Clinical Engineering	√	√		
BME42129 Neuroengineering	√	√	√	√	BME32105 Biomaterials Science and Engineering	√	√		
BME34145 AIDA for Health Care and Smart Aging		√	√	√	BME42113 Biomedical Imaging	√	√	√	√
BME44144 AIDA for Biosignal Processing and Medical Imaging			√	√	BME42154 Digital Design and Fabrication for Healthcare Services (Consecutive Sub: Sem 1 è Sem 2) *		√		√
BME42154 Digital Design and Fabrication for Healthcare Services (Consecutive Sub: Sem 1 è Sem 2) *		√		√	BME32138 Cellular Engineering	√	√	√	√
					BME34143 MedTech Innovation and Entrepreneurship		√	√	√

** BME42154 to be offered in alternative years.*

(Aug 2022)

2020 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)	IC2135 Material Processing and Technical Communication (1 training credit)
Healthy Lifestyle (0 credits)	
Summer Term: IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME21111 Biomedical Engineering Research and Design Studies I (3 credits)	
ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)	
AMA2511 Applied Mathematics I (2 credits)	AMA2512 Applied Mathematics II (2 credits)
APSS1L01 Tomorrow's Leader (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW) #
LCR III: Chinese (3 credits)	CAR II (3 credits) #
Year 3	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME31142 Biomedical Engineering Research and Design Studies II – Engineer for the Community (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)	P&O Elective III (3 credits) BME42124 Knee and Above-Knee Orthotics
P&O Elective I (3 credits) BME32131 Pedorthics, Foot and Ankle-Foot Orthotics	P&O Elective IV (3 credits) BME42135 Spinal Orthotics
P&O Elective II (3 credits) BME32136 Upper Limb Orthotics	CAR III (3 credits) (with ER/EW) #
Summer Term: BME31206 Biomedical Engineering Clinical Attachment I (4 credits)	
Year 4	
Semester 1 (14 credits)	**Semester 2 (12 credits)**
BME41118 Capstone Project (6 credits)	
P&O Elective V (3 credits) BME32104 Below-Knee Prosthetics	BME41141 Medical Technology Management and Regulation (3 credits)
CAR IV (3 credits) #	P&O Elective VI (3 credits) BME42101 Above-Knee Prosthetics
CLC3241P Professional Communication in Chinese (2 credits)	P&O Elective VII (3 credits) BME42137 Upper Limb Prosthetics
Free Elective (3 credits) *	
Summer Term: BME41207 Biomedical Engineering Clinical Attachment II (4 credits)	

Total Number of Credits: 124 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 HSS2011 Human Anatomy (3 credits) (in Year 3/4 semester 1) or BME42154 Digital Design and Fabrication for Healthcare Services (3 credits) in Year 4 as a Free Elective.

2020 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)	IC2135 Material Processing and Technical Communication (1 training credit)
Healthy Lifestyle (0 credits)	
Summer Term: IC2135 Material Processing and Technical Communication (4 training credits)	
Year 2	
Semester 1 (19.5 credits)	**Semester 2 (16.5 credits)**
BME21111 Biomedical Engineering Research and Design Studies I (3 credits)	
ELC3523 Scientific Writing for Biomedical Engineering Students (2 credits)	
AMA2511 Applied Mathematics I (2 credits)	AMA2512 Applied Mathematics II (2 credits)
AP10005 Physics I (3 credits)	
APSS1L01 Tomorrow's Leader (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
ENG2002 Computer Programming (3 credits)	CAR I (3 credits) (with CR/CW) #
LCR III: Chinese (3 credits)	CAR II (3 credits) #
Year 3	
Semester 1 (16.5 credits)	**Semester 2 (16.5 credits)**
BME31142 Biomedical Engineering Research and Design Studies II – Engineer for the Community (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)	P&O Elective III (3 credits) BME42124 Knee and Above-Knee Orthotics
P&O Elective I (3 credits) BME32131 Pedorthics, Foot and Ankle-Foot Orthotics	P&O Elective IV (3 credits) BME42135 Spinal Orthotics
P&O Elective II (3 credits) BME32136 Upper Limb Orthotics	CAR III (3 credits) (with ER/EW) #
Summer Term: BME31206 Biomedical Engineering Clinical Attachment I (4 credits)	
Year 4	
Semester 1 (11 credits)	**Semester 2 (12 credits)**
BME41118 Capstone Project (6 credits)	
P&O Elective V (3 credits) BME32104 Below-Knee Prosthetics	BME41141 Medical Technology Management and Regulation (3 credits)
CLC3241P Professional Communication in Chinese (2 credits)	P&O Elective VI (3 credits) BME42101 Above-Knee Prosthetics
Free Elective (3 credits) *	P&O Elective VII (3 credits) BME42137 Upper Limb Prosthetics
Summer Term: BME41207 Biomedical Engineering Clinical Attachment II (4 credits)	

Total Number of Credits: 124 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 HSS2011 Human Anatomy (3 credits) (in Year 3/4 semester 1) or BME42154 Digital Design and Fabrication for

Healthcare Services (3 credits) in Year 4 as a 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**
BME32131 Pedorthics, Foot and Ankle-Foot Orthotics (3 credits)	√				BME42124 Knee and Above-Knee Orthotics (3 credits)	√			
BME32136 Upper Limb Orthotics (3 credits)	√				BME42135 Spinal Orthotics (3 credits)	√			
BME32104 Below-Knee Prosthetics (3 credits)		√		√	BME42101 Above-Knee Prosthetics (3 credits)		√		√
					BME42137 Upper Limb Prosthetics (3 credits)		√		√

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

(Aug 2022)

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

Year 3	
Semester 1 (21.5 credits)	**Semester 2 (18.5 credits + 1 training credit)**
BME11108 Biomedical Engineering in Society (2 credits)	
BME21111 Biomedical Engineering Research and Design Studies I (3 credits)	
ELC3523 Scientific Writing for Biomedical Engineering Students (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) * BME32140 Clinical Engineering (3 credits)	BME Elective IV (3 credits) * BME32105 Biomaterials Science and Engineering (3 credits)
BME Elective II (3 credits) *	BME21301/IC2135 Material Processing and Technical Communication (1 training credit)
Summer Term: BME21301/IC2135 Material Processing and Technical Communication (4 training credits)	
Year 4	
Semester 1 (15.5 credits)	**Semester 2 (13.5 credits)**
BME31142 Biomedical Engineering Research and Design Studies II - Engineer for the Community (3 credits)	
BME41118 Capstone Project (6 credits)	
BME Elective V (3 credits) *	BME41141 Medical Technology Management and Regulation (3 credits)
CLC3241P Professional Communication in Chinese (2 credits)	BME Elective VI (3 credits) *
CAR I (3 credits) (with ER/EW) [#]	CAR II (3 credits) (with CR/CW) [#]
Free-elective (3 credits)	
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.