

## 5. SPECIFIED PROGRESSION PATTERNS

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

<b>Year 1</b>	
<b>Semester 1 (16 credits OR 19 credits†)</b>	<b>Semester 2 (18.5 credits)</b>
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 (2.5 credits)
Healthy Lifestyle (0 credits)	
<b>Summer Term: BME21301/IC2135 Material Processing and Technical Communication (2.5 credits)</b>	
<b>Year 2</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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)	Free Elective (3 credits) #
<b>Year 3</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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 III (3 credits) *
BME Elective I (3 credits) *	BME Elective IV (3 credits) *
BME Elective II (3 credits) *	CAR II (3 credits) (with ER/EW) #
<b>Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 credits)</b>	
<b>Year 4</b>	
<b>Semester 1 (11 credits)</b>	<b>Semester 2 (12 credits)</b>
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 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 2 or above in HKDSE Chemistry take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 2 or above in HKDSE Chemistry 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 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.

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

<b>Year 1</b>	
<b>Semester 1 (16 credits OR 19 credits†)</b>	<b>Semester 2 (18.5 credits)</b>
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 (2.5 credits)
Healthy Lifestyle (0 credits)	
<b>Summer Term: BME21301/IC2135 Material Processing and Technical Communication (2.5 credits)</b>	
<b>Year 2</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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)	APSS1L01 Tomorrow's Leader (3 credits)
AP10005 Physics I (3 credits)	AMA2512 Applied Mathematics II (2 credits)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
ENG2002 Computer Programming (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
LCR III: Chinese (3 credits)	Free Elective (3 credits) #
<b>Year 3</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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 III (3 credits) *
BME Elective I (3 credits) *	BME Elective IV (3 credits) *
BME Elective II (3 credits) *	CAR I (3 credits) (with CR/CW) #
<b>Summer Term: BME31210 Biomedical Engineering Industrial Internship (4 credits)</b>	
<b>Year 4</b>	
<b>Semester 1 (14 credits)</b>	<b>Semester 2 (12 credits)</b>
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 II (3 credits) (with ER/EW) #	CAR IV (3 credits) #
CAR III (3 credits) #	

**Total Number of Credits: 124 Academic + 5 IC Training + 4 WIE Training**

† Students who do not have Level 2 or above in HKDSE Chemistry take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 2 or above in HKDSE Chemistry take ABCT1741 General Chemistry I

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

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**5.3. Students in BME with P&O who have Level 2 or above in HKDSE Physics/Combined Science with Physics:**

<b>Year 1</b>	
<b>Semester 1 (16 credits OR 19 credits†)</b>	<b>Semester 2 (18.5 credits)</b>
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 (2.5 credits)
Healthy Lifestyle (0 credits)	
<b>Summer Term:</b> BME21301/IC2135 Material Processing and Technical Communication (2.5 credits)	
<b>Year 2</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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)	Free Elective (3 credits) #
<b>Year 3</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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) BME42101 Above-Knee Prosthetics
BME Elective I (3 credits) BME32104 Below-Knee Prosthetics	BME Elective III (3 credits) BME42137 Upper Limb Prosthetics
CAR II (3 credits) (with ER/EW) #	CAR III (3 credits) #
<b>Summer Term:</b> BME31206 Biomedical Engineering Clinical Attachment I (4 credits)	
<b>Year 4</b>	
<b>Semester 1 (14 credits)</b>	<b>Semester 2 (12 credits)</b>
BME41118 Capstone Project (6 credits)	
BME Elective IV (3 credits) BME32131 Pedorthics, Foot, and Ankle-Foot Orthotics	BME41141 Medical Technology Management and Regulation (3 credits)
BME Elective V (3 credits) BME32136 Upper Limb Orthotics	BME Elective VI (3 credits) BME42124 Knee and Above-Knee Orthotics
CLC3241P Professional Communication in Chinese (2 credits)	BME Elective VII (3 credits) BME42135 Spinal Orthotics
CAR IV (3 credits) #	
<b>Summer Term:</b> BME41207 Biomedical Engineering Clinical Attachment II (4 credits)	

**Total Number of Credits: 124 Academic + 5 IC Training + 8 WIE Training**

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

**5.4. Students in BME with P&O who do not have Level 2 or above in HKDSE Physics/Combined Science with Physics:**

<b>Year 1</b>	
<b>Semester 1 (16 credits OR 19 credits)†</b>	<b>Semester 2 (18.5 credits)</b>
BME11108 Biomedical Engineering in Society (2 credits)	
ABCT1700 Introduction to Chemistry (3 credits)†	ABCT1741 General Chemistry I (3 credits)†
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 (2.5 credits)
Healthy Lifestyle (0 credits)	
<b>Summer Term: BME21301/IC2135 Material Processing and Technical Communication (2.5 credits)</b>	
<b>Year 2</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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)
BME21120 Fundamentals of Biomedical Instrumentation I (3 credits)	BME21119 Fundamentals of Biomechanics (3 credits)
ENG2002 Computer Programming (3 credits)	BME31121 Fundamentals of Biomedical Instrumentation II (3 credits)
LCR III: Chinese (3 credits)	Free Elective (3 credits) #
<b>Year 3</b>	
<b>Semester 1 (16.5 credits)</b>	<b>Semester 2 (16.5 credits)</b>
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) BME42101 Above-Knee Prosthetics
BME Elective I (3 credits) BME32104 Below-Knee Prosthetics	BME Elective III (3 credits) BME42137 Upper Limb Prosthetics
CAR I (3 credits) (with CR/CW) #	CAR II (3 credits) (with ER/EW) #
<b>Summer Term: BME31206 Biomedical Engineering Clinical Attachment I (4 credits)</b>	
<b>Year 4</b>	
<b>Semester 1 (14 credits)</b>	<b>Semester 2 (15 credits)</b>
BME41118 Capstone Project (6 credits)	
BME Elective IV (3 credits) BME32131 Pedorthics, Foot, and Ankle-Foot Orthotics	BME41141 Medical Technology Management and Regulation (3 credits)
BME Elective V (3 credits) BME32136 Upper Limb Orthotics	BME Elective VI (3 credits) BME42124 Knee and Above-Knee Orthotics
CLC3241P Professional Communication in Chinese (2 credits)	BME Elective VII (3 credits) BME42135 Spinal Orthotics
CAR III (3 credits) #	CAR IV (3 credits) #
<b>Summer Term: BME41207 Biomedical Engineering Clinical Attachment II (4 credits)</b>	

**Total Number of Credits: 127 Academic + 5 IC Training + 8 WIE Training**

† Students who do not have Level 2 or above in HKDSE Chemistry take ABCT1700 Introduction to Chemistry (also highly recommended to take ABCT1741 General Chemistry I) and students who have Level 2 or above in HKDSE Chemistry take ABCT1741 General Chemistry I

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