Master of Science in Biopharmaceutical Development and Commercialization

生物醫藥研發及產業化理學碩士學位

Programme code: 12062

2024/25 Intake cohort

This Programme Requirement Document is subject to review and changes, which the Department of Applied Biology and Chemical Technology can decide to make from time to time. Students will be informed of the changes as and when appropriate.

This document contains information known as of August 2024.

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1. Introduction

- 1.1. The biopharmaceutical industry is at the forefront of medical innovation, offering transformative therapies that address unmet medical needs. As this sector continues its rapid evolution, there's a pressing demand for professionals adept in the complexities of biopharmaceutical development and commercialization. This programme aims to bridge the current educational gap, providing a comprehensive curriculum that merges scientific, business, regulatory, and ethical aspects of the biopharmaceutical landscape.
- 1.2. General Information

Programme Title (English):	Master of Science in Biopharmaceutical Development and Commercialization – (BDC)
Programme Title (Chinese):	生物醫藥研發及產業化理學碩士
Programme Code:	12062
Host Department:	Department of Applied Biology and Chemical Technology (ABCT)
Type of Programme:	Self-financed
Mode of Attendance:	Mixed-mode
Normal Duration:	1 year for full-time mode; 2 years for part-time mode
Total Credit Requirement:	31 for MSc degree / 19 for PgD exit award
Medium of Instruction:	English
Award Titles & Code ¹ :	MSc in Biopharmaceutical Development and Commercialization (MFT/MPT) PgD in Biopharmaceutical Development and Commercialization (PFT/PPT)

¹ Stream codes are shown in brackets. **MFT/PFT** refers to the programme in a full-time mode, while **MPT/PPT** refers to the programme in a part-time mode

2. Aims, Institutional and Programme Intended Learning Outcomes

2.1. Programme Aims

The programme aims to provide students with a comprehensive and holistic education in biopharmaceuticals, covering both the scientific and non-scientific aspects of this field. Students will learn the fundamental science behind biopharmaceuticals, as well as the processes and challenges involved in their development and commercialization. Students will also develop critical thinking and analytical skills, enabling them to innovate and solve problems within the biopharmaceutical sector. Furthermore, students will explore the business, ethical, and societal dimensions of biopharmaceuticals, gaining a multifaceted perspective that will prepare them for diverse roles in this dynamic and growing industry.

2.2. Institutional Learning Outcomes (Taught Postgraduate) (ILOs)

Three learning outcomes are believed to be broadly applicable to all PolyU taught postgraduate programmes – all graduates of taught postgraduate programmes are expected to be able to demonstrate professional competence, strategic thinking, and lifelong learning capability. The institutional learning outcomes for these attributes are provided as follows:

(1) **Professional competence of specialists/leaders of a discipline/profession:** Graduates will possess in-depth knowledge and skills in their area of study and be able to apply their knowledge and contribute to professional leadership.

(2) Strategic thinking:

Graduates will be able to think holistically and analytically in dealing with complex problems and situations pertinent to their professional practice. They will be versatile problem solvers with good mastery of critical and creative thinking skills, who can generate practical and innovative solutions.

(3) Lifelong learning capability:

Graduates will have an enhanced capability for continual professional development through inquiry and reflection on professional practice.

2.3. Programme Intended Learning Outcomes (PILOs)

Programme intended learning outcomes refer to the intellectual abilities, knowledge and skills that all graduates of this postgraduate programme should possess.

Upon successful completion of the programme, students should have:

- i) Scientific Proficiency: Students will gain a deep understanding of the science behind biologics, such as protein engineering and cell and gene therapies.
- ii) Commercial Insight: Students will learn about the business side of biopharmaceuticals, such as patenting, pricing, and market entry.

- iii) Regulatory Knowledge: Students will master the regulatory aspects of biopharmaceuticals, such as clinical trials, drug approvals, and ethics.
- iv) Interdisciplinary Collaboration: Students will develop their collaborative skills and learn to work with teams from different disciplines in biopharmaceutical projects.

These outcomes will be achieved by using different teaching/learning methods and various assessment tools as well as a set of criterion-referenced assessment grades in each subject. Details are listed in Subject Description Forms.

PolyU aspires to develop all its students as all-round graduates with professional competence, and has identified a set of highly valued graduate attributes as the learning goals for students. While many of these graduate attributes can be developed through the curricular activities of this programme, some attributes including professional integrity, ethical values, life-long learning, social and national responsibility, cultural appreciation and global outlook are primarily nurtured through co-curricular activities offered by faculties, departments, and various teaching and learning support units of the University. Students are encouraged to make full use of such opportunities to develop these attributes.

Intondad	Institutional Learning Outcome			
Programme Learning Outcome	 (1) Professional competence of specialists/leaders of a discipline/profession 	(2) Strategic thinking	(3) Lifelong learning capability	
(i)				
(ii)				
(iii)				
(iv)				

2.4. <u>Relationship between Institutional Learning Outcomes (ILOs) and Programme Intended</u> <u>Learning Outcomes (PILOs)</u>:

2.5. Curriculum Mapping

A curriculum map helps to clarify learning goals for students and gives them an overall picture of the programme intended learning outcomes. It also enables students to learn about the opportunities available in the programme through which they can develop academically, professionally and personally, so that they can better manage their learning. It is important to emphasize that students are expected to be active and motivated learners towards the achievement of these learning outcomes as listed in 2.3.

		Core subjects						
		1	2	3	4	5	6	7
	Г	CT5101	CT5102	CT5103	CT5104	CT5105	CT5106	CT5107
	Programme Outcomes (After completion, students should be able to:)	ABC	ABC	ABC	ABC	ABC	ABC	ABC
i)	Scientific Proficiency: Students will gain a deep understanding of the science behind biologics, such as protein engineering and cell and gene therapies.	I R	I R				R	R A
ii)	Commercial Insight: Students will learn about the business side of biopharmaceuticals, such as patenting, pricing, and market entry.			Ι				
iii)	Regulatory Knowledge: Students will master the regulatory aspects of biopharmaceuticals, such as clinical trials, drug approvals, and ethics.				I R	R A		
iv)	Interdisciplinary Collaboration: Students will develop their collaborative skills and learn to work with teams from different disciplines in biopharmaceutical projects.		I R	I R	I R	R	A	R

		Core subjects				
		8	9	10	11	12
		T5108	T5109	T5110	T5111	T5112
	Programme Outcomes (After completion, students should be able to:)	ABC	ABC	ABC	ABC	ABC
i)	Scientific Proficiency: Students will gain a deep understanding of the science behind biologics, such as protein engineering and cell and gene therapies.		R A	R A	RA	А
ii)	Commercial Insight: Students will learn about the business side of biopharmaceuticals, such as patenting, pricing, and market entry.	R A	R A	RA	RA	R
iii)	Regulatory Knowledge: Students will master the regulatory aspects of biopharmaceuticals, such as clinical trials, drug approvals, and ethics.		R A	RA	RA	R
iv)	Interdisciplinary Collaboration: Students will develop their collaborative skills and learn to work with teams from different disciplines in biopharmaceutical projects.	R	А	А	A	A

Notes:

1.	ABCT5101	-	Modern Approaches in Biopharmaceutical Development
2.	ABCT5102	-	Pharmacology and Toxicology in Biotherapeutics
3.	ABCT5103	-	Intellectual Property Strategy for Biotech Entrepreneurship

4.	ABCT5104	-	Regulatory Science for Biotech Products
5.	ABCT5105	-	Ethics and Management in Life Sciences
6.	ABCT5106	-	Technology Platforms in Drug Discovery
7.	ABCT5107	-	Advanced Therapeutic Products
8.	ABCT5108	-	Investment Financing and Risk Management in Biobusiness
9.	ABCT5109	-	Entrepreneurship- From Lab to Launch
10.	ABCT5110	-	Industrial Attachment
11.	ABCT5111	-	Industrial Practicum
12.	ABCT5112	-	Capstone Project
Ι	(Introduced)	-	That the learning leading to the particular intended outcome is introduced in that subject.
R	(Reinforced)	-	That the learning leading to the particular intended outcome is reinforced in that subject.
Α	(Assessed)	-	That the performance which demonstrates the particular intended outcome is assessed in that subject.

3. Mode of Study

A student should complete the study within one year for full-time mode or within two years for part-time mode.

4. Entrance Requirements

- 4.1. Bachelor's degree in Biological Sciences, Chemistry or related disciplines or qualification of equivalent standard from a recognized University.
- 4.2. Preference will be given to applicants having at least one year of relevant working experience.

4.3. English Language Requirement

Applicants who are not native speakers of English, or whose Bachelor's degree or equivalent qualification is awarded by institutions where the medium of instruction is not English, should fulfill the following minimum English language requirement for admission purpose, unless otherwise specified by the Department concerned:

A Test of English as a Foreign Language (TOEFL) score of 80 for the Internet-based test or 550 for the paper-based test; OR

An overall Band Score of at least 6 in the International English Language Testing System (IELTS).

5. The Curriculum

5.1. The Programme contents

For qualifying the MSc in BDC award, students must complete a total of 31 credits, comprising of 8 core subjects (24 credits), 4 elective subjects (12 credits) and 1 Academic Integrity and Ethics requirement subject (1 credit).

A. Core Subjects *

Subject Code	Subject Title	Credit
ABCT5101	Modern Approaches in Biopharmaceutical Development	3
ABCT5102	Pharmacology and Toxicology in Biotherapeutics	3
ABCT5103	Intellectual Property Strategy for Biotech Entrepreneurship	3
ABCT5104	Regulatory Science for Biotech Products	3
ABCT5105	Ethics and Management in Life Sciences	3
ABCT5106	Technology Platforms in Drug Discovery	3
ABCT5107	Advanced Therapeutic Products	3
ABCT5108	Investment Financing and Risk Management in Biobusiness	3

B. Optional Core Subjects

Students must choose one of the following Optional Core Subjects options (6 credits):

Option 1

Subject Code	Subject Title	Credit
ABCT5109	Entrepreneurship- From Lab to Launch	3
ABCT5111	Industrial Practicum	3

Option 2

Subject Code	Subject Title	Credit
ABCT5110	Industrial Attachment	6

Option 3

Subject Code	Subject Title	Credit
ABCT5109	Entrepreneurship- From Lab to Launch	3
ABCT5112	Capstone Project	3

* Students who obtain PgD in BDC award are required to complete at least 6 core subjects, equivalent to 18 credits, within the first two semesters of the program

C. Online module of "Academic Integrity and Ethics in Science"

Students are required to complete a module, titled "Academic Integrity and Ethics in Science", plus self-study and pass the assessment in the form of presentation, normally within their first year of studies, as a graduation requirement.

D. Online module of "Understanding China and Hong Kong SAR, P.R.C."

Students are required to complete a 3-hour online module, titled "Understanding China and the Hong Kong Special Administrative Region, P.R.C.", plus 3 hours of self-study and pass the assessment (multiple attempts allowed) in the form of multiple-choice

questions online, normally within their first year of studies, as a graduation requirement.

Subject Code	Subject Title	Credit	<u>C</u> ore or <u>O</u> ptional *
Semester 1			
ABCT5101	Modern Approaches in Biopharmaceutical	3	С
	Development		
ABCT5102	Pharmacology and Toxicology in Biotherapeutics	3	С
ABCT5103	Intellectual Property Strategy for Biotech	3	С
	Entrepreneurship		
ABCT5104	Regulatory Science for Biotech Products	3	С
ABCT5105	Ethics and Management in Life Sciences	3	С
ABCT5T01	Academic Integrity and Ethics in Science#	1	
	Total	16	
Semester 2			
ABCT5106	Technology Platforms in Drug Discovery	3	С
ABCT5107	Advanced Therapeutic Products	3	С
ABCT5108	Investment Financing and Risk Management in	3	С
	biobusiness		
XX.YYYY	One Optional Core Subject	3	Ο
	Total	12	
Semester 3			
XX.YYYY	One Optional Core Subject	3	0
	Total	3	

5.2. <u>Suggested pattern of progression for full-time study of the programme</u>^

^ Those who opt for part-time mode study should meet the Programme Leader for a detailed study plan.

* The time for taking Understanding China and Hong Kong SAR, P.R.C. is flexible and could be adjusted according to the students' own progress. It could be taken in either Semester 1, 2 or Summer Term.

Students are required to complete a module, plus self-study and pass the assessment in the form of presentation, normally within their first year of studies, as a graduation requirement.

5.3. Specific aims, learning outcomes, mode of study, teaching/learning approach, assessment and other details of each subject are in Subject Description Forms available at Department's website.

6. Level of Award

The programme will grant the award of Master of Science (MSc) and Postgraduate Diploma (PgD) to the students who have completed the required content as stipulated in each award.

6.1. Master of Science (MSc) Award

Candidates qualifying for the award of Master of Science in Biopharmaceutical Development and Commercialization must have:

- 1. Completed 30 credits of Core and Optional Core Subjects as stipulated in Section 5.1A and 5.1B
- 2. Completed the 1-credit module of "Academic Integrity and Ethics in Science" with a "Pass" Attainment as stipulated in Section 5.1C
- 3. Completed the online module of "Understanding China and Hong Kong SAR, P.R.C." with a "Pass" Attainment as stipulated in Section 5.1D.

6.2. Postgraduate Diploma (PgD) Award

For candidates who are not qualifying for the award of Master of Science in Biopharmaceutical Development and Commercialization, the Department may consider granting the student an award of Postgraduate Diploma in Biopharmaceutical Development and Commercialization. Candidates qualifying for the award of Postgraduate Diploma in Biopharmaceutical Development and Commercialization must have:

- 1. Completed 18 credits of Core and Optional Core Subjects as stipulated in Section 5.1A and 5.1B
- 2. Completed the 1-credit module of "Academic Integrity and Ethics in Science" with a "Pass" Attainment as stipulated in Section 5.1C
- 3. Completed the online module of "Understanding China and Hong Kong SAR, P.R.C." with a "Pass" Attainment as stipulated in Section 5.1D.

7. Subject registration and withdrawal

In addition to programme registration, students need to register for the subjects at specified periods prior to the commencement of the semester. An add/drop period will also be scheduled for each semester/term. Students may apply for withdrawal of their registration on a subject after the add/drop period and before the commencement of the examination period if they have a genuine need to do so. The application should be made to the relevant programme offering Department and will require the approval of both the subject teacher and the host Department Programme Leader concerned (or an alternate academic staff authorised by the programme offering Department). Applications submitted after the commencement of the examination period will not be considered. For approved applications of subject withdrawal, the tuition fee paid for the subject will be forfeited and the withdrawal status of the subject will be shown in the assessment result notification and transcript of studies, but will not be counted in the calculation of the GPA.

Students may apply for credit transfer and subject exemption following the guidelines stipulated in Student Handbook for Taught Programmes.

8. Examination and Assessment

8.1. Assessment in this programme helps to identify students' strengths and weaknesses and to assess the extent to which the students have benefited from the designated programme of study. It also serves the function to evaluate the curriculum in terms of effectiveness of teaching and learning.

- 8.2. Students' performances will be assessed by continuous assessments and/or final examinations. Continuous assessment has been chosen for most subjects to give recognition to the continuous effort put in by students. The various components of assessment should help the testing and development of students' abilities more comprehensively.
- 8.3. The extent to which a student has met the aims of a particular subject is assessed and recorded immediately upon its completion. Assessment of students takes place exclusively within subjects. This allows students to assess their progress and make choices regarding their continuing programme of study. Subject description forms specify how a subject will be assessed in terms of proportion of examination (if any) to course work. The basis on which grades are to be awarded is linked with the objectives of each subject.
- 8.4. It is intended that a variety of assessment methods, such as tests, assignments, projects, laboratory work, placement performance, presentations and other forms of classroom participation. The contribution made by each student in course work involving a group effort shall be determined and assessed separately. The assessment of each subject will pay particular attention to assessment methods, which test for understanding and match the objectives of the subject.

A+ExcellentDemonstrates excellent achievement of intended subject learning outcomes by being able to skillfully use concepts and solve complex problems. Shows evidence of innovative and critical thinking in unfamiliar situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. ShowsB-GoodB-Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. ShowsB-C+C+SatisfactoryC+SatisfactoryC+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows	Subject grade	Short description	Elaboration on subject grading description	Grade Point
Asubject learning outcomes by being able to skillfully use concepts and solve complex problems. Shows evidence of innovative and critical thinking in unfamiliar situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. ShowsB-GoodB-GoodB-the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the 	A+	Excellent	Demonstrates excellent achievement of intended	4.3
A-problems. Shows evidence of innovative and critical thinking in unfamiliar situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. ShowsB-B-B-the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows	A		subject learning outcomes by being able to skillfully use concepts and solve complex	4.0
B+CoolCoolCertical thinking in unfamiliar situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.B+Demonstrates good achievement of intended subject learning outcomes by being able to use 	A-		problems. Shows evidence of innovative and	3.7
able to express the synthesis or application of ideas in a logical and comprehensive manner.B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. Shows the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory able to solve relatively simple problems. Shows			critical thinking in unfamiliar situations, and is	
B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. Shows the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory atisfactoryC+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows			able to express the synthesis or application of	
B+Demonstrates good achievement of intended subject learning outcomes by being able to use appropriate concepts and solve problems. ShowsB-Goodsubject learning outcomes by being able to use appropriate concepts and solve problems. Shows the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows			ideas in a logical and comprehensive manner.	
BGoodsubject learning outcomes by being able to use appropriate concepts and solve problems. Shows the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows	B+		Demonstrates good achievement of intended	3.3
B- appropriate concepts and solve problems. Shows B- the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner. C+ Demonstrates satisfactory achievement of Intended subject learning outcomes by being able to solve relatively simple problems. Shows	В	Good	subject learning outcomes by being able to use	3.0
B- the ability to analyse issues critically and make well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner. C+ Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows	-		appropriate concepts and solve problems. Shows	0.0
Well-grounded judgements in familiar or standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows	В-		the ability to analyse issues critically and make	2.7
Standard situations, and is able to express the synthesis or application of ideas in a logical and comprehensive manner.C+Demonstrates satisfactory achievement of intended subject learning outcomes by being able to solve relatively simple problems. Shows			well-grounded judgements in familiar or	
C+ Satisfactory C Satisfactory able to solve relatively simple problems. Shows			standard situations, and is able to express the	
C+DemonstratessatisfactoryachievementofCSatisfactoryintendedsubjectlearningoutcomesbybeingable to solve relatively simple problems. Shows			synthesis or application of ideas in a logical and comprehensive manner.	
C Satisfactory intended subject learning outcomes by being able to solve relatively simple problems. Shows	C+		Demonstrates satisfactory achievement of	2.3
able to solve relatively simple problems. Shows	С	Satisfactory	intended subject learning outcomes by being	2.0
a successive for an invite and matrices			able to solve relatively simple problems. Shows	-

judgements in a variety of familiar and standard

situations, and is able to express the synthesis or application of ideas in a manner that is generally 1.7

8.5. Students will be informed of their level of performance in each subject in terms of the grade obtained. The following grading of each subject will be used:

logical but fragmented.

C-

Subject grade	Short description	Elaboration on subject grading description	Grade Point
D+	Pass	Demonstrates marginal achievement of intended	1.3
D	-	relatively simple problems. Can make basic	1.0
D		comparisons, connections and judgments and	1.0
		express the ideas learnt in the subject, though	
		there are frequent breakdowns in logic and	
		clarity.	
F	Fail	Demonstrates inadequate achievement of	0.0
		intended subject learning outcomes through a	
		lack of knowledge and/or understanding of the	
		subject matter. Evidence of analysis is often	
		irrelevant or incomplete.	

'F' is a subject failure grade, whilst all others ('D' to 'A+') are subject passing grades. No credit will be earned if a subject is failed.

Notes:

- Marking rubrics aligned with these Grade Descriptors need not include all aspects of the grade descriptor.
- Marking rubrics aligned with these Grade Descriptors may include other aspects aligned with particular subject matter or field of study requirements but are not included in the grade descriptor.

Main Grade	The student generally performed at this level, indicating mastery
(solid)	of the subject intended learning outcomes at this level.
+ (exemplary)	The student consistently performed at this level and exceeded the expectations of this level in some regards, but not enough to claim mastery at the next level.
-	The student basically performed at this level, but the performance
(marginal)	was inconsistent or fell slightly short in some regards.

Indicative descriptors for modifier grades

Note: The above indicative descriptors for modifier grades are not applicable to the pass grades D and D+

8.6. Absence from an assessment component

8.6.1. If a student is unable to complete all the assessment components of a subject, due to illness or other circumstances which are beyond his control and considered by the subject offering department as legitimate, the department will determine whether the student will have to complete a late assessment and, if so, by what means. This late assessment shall take place at the earliest opportunity, and before the commencement of the following academic year (except that for Summer Term, which may take place within 3 weeks after the finalisation of Summer Term results). If the late assessment cannot be completed before the commencement of the following academic year, the

Faculty Board Chairman shall decide on an appropriate time for completion of the late assessment.

8.6.2. The student concerned is required to submit his application for late assessment in writing to the Head of Department offering the subject, within five working days from the date of examination, together with any original supporting documents. Approval of applications for late assessments and the means for such late assessments shall be given by the Head of Department offering the subject or the Subject Lecturer concerned, in consultation with the Programme Leader. Verification of the supporting documents with the issuing authority may be conducted by the subject offering Department as part of the approval process.

8.7. Assessment to be completed

For cases where students fail marginally in one of the components within a subject, the BoE can defer making a final decision until the students concerned have completed the necessary remedial work to the satisfaction of the subject examiner(s). The remedial work must not take the form of re-examination.

8.8. <u>Retaking of subjects</u>

- 8.8.1. Students may only retake a subject which they have failed; (i.e. Grade F or S or U). Retaking of subjects is with the condition that the maximum study load of 21 credits per semester is not exceeded.
- 8.8.2. The number of retakes of a subject should be restricted to two, i.e. a maximum of three attempts for each subject is allowed. Students need to submit a request to the Faculty Board for the second retake of a failed subject.
- 8.8.3. In retaking a subject, the student will generally be required to re-attend the subject before re-sitting the examination.

8.9. Progression/Academic Probation/Deregistration

- 8.9.1. The Board of Examiners shall, at the end of each semester, determine whether each student is:
 - (i) Eligible for progression towards an award; or
 - (ii) Eligible for an award; or
 - (iii) Required to be deregistered from the programme.
- 8.9.2. When a student has a Grade Point Average (GPA) lower than 1.7, he/she will be put on academic probation in the following semester. If a student is able to pull his GPA up to 1.7 or above at the end of the semester, the status of "academic probation" will be lifted. The status of "academic probation" will be reflected in the assessment result notification but not in transcript of studies.
- 8.9.3. A student will have 'progressing' status unless he falls within any one of the following categories which may be regarded as grounds for deregistration from

the programme:

- (i) The student has reached the final year of normal period of registration for the programme, as specified in the Programme Requirement Document, unless approval has been given for extension; or
- (ii) The student has reached the maximum number of retakes allowed for a failed compulsory subject; or
- (iii) The student's GPA is lower than 1.7 for two consecutive semesters and his/her Semester GPA in the second semester is also lower than 1.7; or
- (iv) The student's GPA is lower than 1.7 for three consecutive semesters.
- 8.9.4. A student may be deregistered from the programme enrolled before the time specified in section 8.9.3(iii) and 8.9.3(iv) above if his/her academic performance is poor to the extent that the Board of Examiners deems that his/her chance of attaining a GPA of 1.7 at the end of the programme is slim or impossible.
- 8.9.5. Students who wish to defer their study must apply and get approval for deferment, otherwise they are likely to be deregistered. Deferment will normally be granted for no more than 2 semesters at a time. (Please refer to Section 10 for more details).
- 8.9.6. If the student is not satisfied with the de-registration decision of the Board of Examiner, he/she can lodge an appeal. All such appeal cases will be referred directly to Academic Appeals Committee (AAC) for final decision. Views of Faculties/Schools/Departments will be sought and made available to AAC for reference.
- 8.9.7. No extension of time will be granted on grounds of timetable conflict or nonavailability of subjects.

8.10. Graduation Requirements

- 8.10.1. For the award of MSc/PgD, students must accumulate the required number of credits as specified in section 5.
- 8.10.2. For both the PgD and Master's awards, the student's final Grade Point Average (GPA) must be 1.7 or above.
- 8.10.3. For both the PgD and Master's awards, student are required to complete the 1credit module of "Academic Integrity and Ethics in Science" and pass the online module of "Understanding China and Hong Kong SAR, P.R.C.".
- 8.10.4. A student is required to graduate as soon as he/she satisfies all the conditions for award (see Section 6 above).
- 8.10.5. Satisfying the residential requirement for at least 1/3 of the credits to be completed for the award he/she is currently enrolled.

8.11. Grade Point Average (GPA)

8.11.1. At the end of each semester/term, a Grade Point Average (GPA) will be

computed as follows, and based on the grade point of all the subjects:

$$GPA = \frac{\sum_{n=1}^{N} Subject Grade Point_{n} \times Subject Credit Value_{n}}{\sum_{n=1}^{N} Subject Credit Value_{n}}$$

where N = number of all subjects (inclusive of failed subjects) taken by the student up to and including the latest semester/term. For subjects which have been retaken, only the grade point obtained in the final attempt will be included in the GPA calculation

In addition, the following subjects will be excluded from the GPA calculation: Exempted subjects (i)

- Ungraded subjects
- (ii) (iii) Incomplete subjects
- Subjects for which credit transfer has been approved without any grade (iv) assigned²
- Subjects from which a student has been allowed to withdraw (i.e. those (v) with the code 'W')

Subject which has been given an "S" subject code, i.e. absent from examination, will be included in the GPA calculation and will be counted as "zero" grade point. GPA is thus the unweighted cumulative average calculated for a student, for all relevant subjects taken from the start of the programme to a particular point of time. GPA is an indicator of overall performance ranges from 0.00 to 4.30.

² Subjects taken in PolyU or elsewhere and with grades assigned, and for which credit transfer has been approved, will be included in the GPA calculation.

- 8.11.2. Since all taught subjects offered within the Programme are at the same level, they contribute equally to the calculation of the GPA.
- 8.11.3. In the event that grade is awarded to subject components, a grade point with the decimal value may be generated for the overall result of the subject. This grade point with decimal value will be converted to grade for deriving the subject overall grades. The corresponding grade point for the subject overall grade, instead of the actual grade points obtained by students, will be used for GPA calculation. This methodology for deriving subject overall grades only serves as an aid to subject assessors. As assessment should be a matter of judgement, not merely a result of computation, the subject lecturer will have the discretion to assign a grade which is considered to reflect more appropriately the overall performance of the student in a subject to override the grade derived by the computer.

8.12. Guidelines for Award Classification

The following guidelines will be used by the Board of Examiners to recommend the classification of the award:

Award GPA	Classification	Guidelines
3.60 - 4.30	Distinction	The student's performance/attainment is outstanding, and identifies him as exceptionally able in the field covered by the programme in question.
3.00 - 3.59	Credit	The student has reached a standard of performance/ attainment which is more than satisfactory but less than outstanding.
1.70 - 2.99	Pass	The student has reached a standard of performance/ attainment ranging from just adequate to satisfactory.

Starting from 2022/23 academic year, flexibility is provided for Faculty/School Boards to determine the award classification of graduates who fall short of the stipulated Award GPA range by 0.1.

8.13. A student should be granted a Master's award without having to submit an application for graduation under the following condition:

8.13.1. He/she has fulfilled all the requirements for a Master's award

- 8.14. Condition 8.13.1 applies only when the student has a valid registration status. If a student's registration status has been set to "Study ended" due to non-compliance with PolyU regulations, for example, failure to pay fees, he/she will not be eligible for the award unless his/her registration status has been reinstated.
- 8.15.Under special circumstances when a student is unable to fulfill the requirements to graduate with an MSc award, the Department may consider granting the student with an award of Postgraduate Diploma (PgD) in BDC. To be eligible for the award, the student should complete (1) 18 credits of 6 core subjects within first two semesters of the programme, (2) the 1-credit module of "Academic Integrity and Ethics in Science", and (3) pass the online module of "Understanding China and Hong Kong SAR, P.R.C." for it.

9. Departmental Policy/Guidelines on Student Misconduct

- 9.1. Students who are found guilty of academic dishonesty or non-compliance with examination regulations will be subject to the penalty of having the subject result concerned disqualified and be given a failure grade with a remark denoting 'Disqualification of result due to academic dishonesty/ non-compliance with examination regulations'. The remark will be shown in the students' records as well as assessment result notification and transcript of studies, until their leaving the University.
- 9.2. Students who have committed disciplinary offences (covering both academic and nonacademic related matters) will be put on 'disciplinary probation'. The status of 'disciplinary probation' will be shown in the students' record as well as the assessment result notification, transcript of studies and testimonial during the probation period, until their leaving the University. The disciplinary probation is normally one year unless otherwise decided by the Student Discipline Committee.

- 9.3. Students who have been recorded with the remark will also be subject to the penalty of the lowering of award classification by one level.
- 9.4. The University reserves the right to withhold the issuance of any certification of study to a student/graduand who has unsettled matters with the University, or is subject to disciplinary action.

10. Deferment of study/ Zero subject Enrolment

- 10.1. Students may apply for deferment of study if they have a genuine need to do so such as illness or posting to work outside Hong Kong. Approval from the Department is required. The deferment period will not be counted towards the total period of registration.
- 10.2. Where the period of deferment of study begins during a stage for which fees have been paid, no refund of such fees will be made. Students who have been approved for deferment are not entitled to enjoy any campus facilities during the deferment period.
- 10.3. If students do not wish to take any subject in a semester, they must seek approval from the Department to retain their study place by submitting an application via eStudent before the start of the semester and in any case not later than the end of the add/drop period. Otherwise, their registration and student status with the University will be withdrawn. The semesters during which students are allowed to take zero subject will be counted towards the total period of registration for the programme concerned.

11. Programme Administration

The Programme is operated and managed according to the University guidelines.

11.1. Board of Examiners (BoE)

- 11.1.1. A Board of Examiners (BoE) shall be appointed for this programme. The Faculty Board may approve arrangements whereby area examination committees take responsibility for certain aspects of the programme, and report to the full Board of Examiners.
- 11.1.2. The minimum number of a BoE's membership (including the Chairman, but not the Secretary) should be five, and it should be composed of staff members associated with the programme and some other senior staff members. In this programme, the BoE Chairman is the Head of Department or his/her delegate.
- 11.1.3. The Faculty Board will meet at the end of each semester to consider the decisions taken by the Boards of Examiners. The focus of the Faculty Board's considerations will be on the programme and on the consistency of decision making across the Faculty whereas the emphasis of the Board of Examiners will have been on individual students.

- 11.1.4. The Faculty Board shall consider only those decisions on individual students which fall outside the programme regulations or the University regulations. Those which fall outside the University regulations shall be further referred, with the Board's views, to the Academic Planning and Regulation Committee (APRC) for ratification.
- 11.1.5. In considering the decisions from the BoE, the Faculty Board will normally receive the following information:
 - i) Statistic on:
 - Award classification distribution
 - Students who are required to be deregistered; dropping out (i.e. official withdrawal and study-ended); taking zero subject; transferring to another programme
 - For cases with extenuating circumstances including those failing outside programme regulations or University regulations – report from Board of Examiners.

11.2. Postgraduate Programme Committee

The Postgraduate Programme Committee exercises the overall academic and operational responsibility for the programme and its development within defined policies, procedures and regulations. The composition of the Programme Committee is:

- Chairman
- Designated Associate Head
- Programme Leader
- Deputy Programme Leader
- Subject Lecturers
- > Two student representatives (to be elected)
- 11.3. Programme Leader and Deputy Programme Leader

The Programme Leader and Deputy Programme Leader are responsible for providing academic and organizational leadership for the programme through the Programme Committee. The Programme Leader, Deputy Programme Leader accountable to the Head of Department for day-to-day operation of the programme.

11.4. Student/Staff Consultative Group

This group, consisting of the Programme Leader, Deputy Programme Leader, Subject Lecturers, and student representatives, meets twice per year to discuss the programme in general, the demands of the programme on students, and possible improvements. It gives students the opportunity to contribute to the operation of the programme.

12. University Regulations

The regulations in this Programme Requirement Document are only those which apply specifically to the self-financed MSc in Biopharmaceutical Development and Commercialization programme. Student should consult the current issue of "Student Handbook for Taught Programmes" for the General Regulations of the University.