Biochemistry
Applicable to students admitted in 2026-27

Major Programme Requirement

Students are required to complete a minimum of 59[a] units of courses as follows:

		Units
1.	Faculty Package: Group A: LSCI1002 Group B: CHEM1280 (preferred) or 1070 A course from the following Group C: MATH1520 (preferred) or 1010 or 1018 Group D: (PHYS1001 or 1002) (preferred) or 1111 Group E: STAT1012 (preferred) or 1011	9
2.	Required Courses:	
(a)	BCHE2000, 2030, 3030, 3040, 3050, 3070, 3080, 3092, 3650, 3730	24
(b)	BIOL2120#, 2313#, 2410#	6
3.	Elective Courses:	
(a)	Capstone Courses: One of the five options (at least 3 units, with a maximum of 6 units) (i) BCHE4901 and 4902 and 4903 (ii) BCHE4902 and 4903 (iii) LSCI4911# and 4912# and 4913# (iv) LSCI4912# and 4913# (v) LSCI4000#	3
(b)	Of the 17 units of elective courses, at least 9 units, with one laboratory course, should be taken from List A. List A: BCHE4030, 4040, 4060, 4070, 4080, 4090, 4130, 4640^, 4760^, 4830^ List B: BIOL2420#, FNSC3010#, 4150#, LSCI2002#, 3012#, 3030#, 3333#, 3520#, MBTE3510#, 3518#, 3560#, 3568#, 4520# List C: BCHE2070, 3110, BIOL3410#, 3630#, 4310#, 4610#, BMEG3101, 4010, CMBI4001#, 4002#, 4003#, 4101#, 4102#, 4103#, 4201#, 4202#, 4203#, LSCI1012, 2003#, STAT3210	17
	Total:	**59**[a]

In addition to fulfilling the above Major Programme Requirement, students meeting the criteria as specified by the Faculty can take the following stream offered by the Faculty:

Science, Technology And Research Stream

Students are required to complete a minimum of 12 units of courses as follows:

		Units
1.	Required Courses:	
(a)	One Faculty Package Course: Choose from the two remaining groups of the Faculty Package that have not been used to fulfill the Faculty Package Requirement	3
(b)	Research Courses:	6

	STAR2000, 3000, 4000[b]	
(c)	Seminar Courses: STAR2050, 3050, 4050	3
2.	Experiential Learning: At least 4 consecutive weeks of outside Hong Kong exposure[c]	---
	Total:	**12**

Explanatory Notes:

1. BCHE courses at 2000 and above level as well as those labeled as # will be included in the calculation of Major GPA for honours classification.
2. Courses labeled as ^ are laboratory courses.

[a] Study Option: Berkeley Biosciences Study Abroad Programme
Students who undergo one term of studies at the University of California, Berkeley, USA will take courses offered by the Berkeley Biosciences Study Abroad Programme. Units obtained from the Programme will be recognized as up to 12 units of Major Programme requirement. This option will be recorded on transcript.

[b] Students may select research-oriented course(s), as approved by the Major Programme, to substitute up to 4 units for fulfillment of Research Courses requirement.

[c] Students must complete any exchange/research/internship programme(s) offered by the University, Colleges, the Faculty of Science or Major Programme, as approved by the Major Programme, to fulfill the Experiential Learning requirement. Students are responsible for the extra costs incurred in the exchange/research/internship programme(s).

Biochemistry		
	Recommended Course Pattern	Units
First Year of Attendance	1st term Faculty Package: one to two courses Major Required: Major Elective(s):	3-6
	2nd term Faculty Package: one to two courses Major Required: Major Elective(s):	3-6
Second Year of Attendance	1st term Major Required: BCHE2030, BIOL2120 Major Elective(s):	6
	2nd term Major Required: BCHE2000, 3050, 3070, 3650, BIOL2313, 2410 Major Elective(s):	10
Third Year of Attendance	1st term Major Required: BCHE3030, 3092, 3730 Major Elective(s): one to two courses	8 3-6
	2nd term Major Required: BCHE3040, 3080 Major Elective(s): one to two courses	6 3-6
Fourth Year of Attendance	1st term Major Required: Major Elective(s): one to two courses	3-6

	2nd term Major Required: Major Elective(s): two to three courses	 5-8
	Total (including Faculty Package):	**59**

Biochemistry — Science, Technology And Research Stream (STARS)		
	Recommended Course Pattern	Units
First Year of Attendance	1st term Faculty Package: two courses Major Required: Major Elective(s):	 6
	2nd term Faculty Package: two courses Major Required: Major Elective(s):	 6
	Summer session STARS: STAR2050	 1
Second Year of Attendance	1st term Major Required: BCHE2030, BIOL2120 Major Elective(s): STARS: STAR2000	 6 1
	2nd term Major Required: BCHE2000, 3050, 3070, 3650, BIOL2313, 2410 Major Elective(s): STARS: STAR3050	 10 1
Third Year of Attendance	1st term Major Required: BCHE3030, 3092, 3730 Major Elective(s): one to two courses STARS: STAR3000	 8 3-6 2
	2nd term Major Required: BCHE3040, 3080 Major Elective(s): one to two courses STARS: STAR4050	 6 3-6 1
Fourth Year of Attendance	1st term Major Required: Major Elective(s): BCHE4902@ and one course	 5-6
	2nd term Major Required: Major Elective(s): BCHE4903@ and one to two courses	 5-8
	Total (including Faculty Package):	**68**

@ Students may take BCHE4902 and 4903 as a substitute for STAR4000.

Minor Programme Title

Biochemistry

Minor Programme Requirement

Students are required to complete a minimum of 21 units of courses, with at least 6 units at 3000 or above level, as follows:

Units

1. Required Courses: 11
   BCHE2030, 3030, 3080, 3730

2. Elective Courses: 10
   BCHE3050, 3070, 3110, 3650^, 4030, 4040, 4060, 4070, 4080, 4090, 4130, 4640^, 4760^, 4830^

Total: 21

Explanatory Notes:
1. Courses labeled as ^ are laboratory courses.
2. No more than 10 units of courses taken to fulfill the requirements of the students' Major Programme(s) and other Minor Programme(s) respectively can be used to fulfill the requirement of this Minor Programme.

Course List

Course Code	*Course Title*	*Unit(s)*
BCHE2000	Frontiers in Biochemistry	2
BCHE2030	Fundamentals of Biochemistry	3
BCHE2070	Research Internship	2
BCHE3030	Methods in Biochemistry	3
BCHE3040	Proteins and Enzymes	3
BCHE3050	Molecular Biology	2
BCHE3070	Recombinant DNA Techniques	1
BCHE3080	Bioenergetics and Metabolism	3
BCHE3092	Self-study Modules in Biochemistry and Professional Development	3
BCHE3110	Chemical Biology	3
BCHE3650	Molecular Biology and Recombinant DNA Laboratory	2
BCHE3730	Analytical Biochemistry Laboratory	2
BCHE4030	Clinical Biochemistry	3
BCHE4040	Aspects of Neuroscience	3
BCHE4060	Basic and Applied Immunology	3
BCHE4070	Management and Accreditation of Biochemical Laboratory	3
BCHE4080	Biochemistry for Forensic Sciences	2
BCHE4090	Biochemistry for Sport and Exercise	2
BCHE4130	Molecular Endocrinology	3
BCHE4640	Aspects of Neuroscience Laboratory	2
BCHE4760	Immunology and Haematology Laboratory	2
BCHE4830	Medical Biochemistry Laboratory	2
BCHE4901	Senior Experimental Project I	2
BCHE4902	Senior Experimental Project II	2
BCHE4903	Senior Experimental Project III	2
STAR2000	Undergraduate Research in Science I	1
STAR2050	Seminar I	1
STAR3000	Undergraduate Research in Science II	2
STAR3050	Seminar II	1

STAR4000	Undergraduate Research in Science III	3
STAR4050	Seminar III	1

生物化學
二〇二六至二七年度入學學生適用

主修課程要求

學生須至少修畢以下科目共 59[a]學分：

		學分
1.	學院課程： A 組：LSCI1002 B 組：CHEM1280（較適合）或 1070 選修下列任何一科 C 組：MATH1520（較適合）或 1010 或 1018 D 組：(PHYS1001 或 1002)（較適合）或 1111 E 組：STAT1012（較適合）或 1011	9
2.	必修科目：	
(a)	BCHE2000, 2030, 3030, 3040, 3050, 3070, 3080, 3092, 3650, 3730	24
(b)	BIOL2120#, 2313#, 2410#	6
3.	選修科目：	
(a)	總結科目： 選修下列五項中之一項（最少 3 學分及最多 6 學分） (i) BCHE4901 及 4902 及 4903 (ii) BCHE4902 及 4903 (iii) LSCI4911#及 4912#及 4913# (iv) LSCI4912#及 4913# (v) LSCI4000#	3
(b)	17 學分選修科目中，學生須於甲組科目中修讀最少 9 學分，包括其中一科之實驗科目。 甲組： BCHE4030, 4040, 4060, 4070, 4080, 4090, 4130, 4640^, 4760^, 4830^ 乙組： BIOL2420#, FNSC3010#, 4150#, LSCI2002#, 3012#, 3030#, 3333#, 3520#, MBTE3510#, 3518#, 3560#, 3568#, 4520# 丙組： BCHE2070, 3110, BIOL3410#, 3630#, 4310#, 4610#, BMEG3101, 4010, CMBI4001#, 4002#, 4003#, 4101#, 4102#, 4103#, 4201#, 4202#, 4203#, LSCI1012, 2003#, STAT3210	17
	共：	**59**[a]

除以上主修課程要求外，達到學院指定要求的學生可額外修讀以下由學院開辦的專修範圍：

科研星耀專修範圍

學生須至少修畢以下科目共 12 學分：

	學分

1.	必修科目：	
(a)	一科學院課程科目： 選自未有用作符合學院課程要求的其餘兩組別	3
(b)	科研培訓科目： STAR2000, 3000, 4000[b]	6
(c)	學術報告科目： STAR2050, 3050, 4050	3
2.	體驗學習： 不少於連續四星期的非本地學習體驗[c]	---
	共：	**12**

註：

1. BCHE 2000 及以上程度及有 # 的科目將會計入主修科目之平均積點，並用以釐定學位等級。
2. 有^的科目為實驗科目。

[a] 修讀選項：柏克萊生物科學海外學習課程
往美國加洲大學柏克萊分校留學一學期的學生，將修讀柏克萊生物科學海外學習課程開設之科目。在該課程修得學分可獲承認最多 12 主修學分。此修讀選項將紀錄在學業成績表內。

[b] 學生可選修獲主修課程批准的科研科目，以代替最多 4 學分科研培訓科目。

[c] 學生須參與獲主修課程批准由大學、書院、理學院或其主修課程開設的交流／研究／實習計劃以符合體驗學習要求。學生將須負責交流／研究／實習計劃之額外費用。

生物化學		
	修課推介	學分
第一修業學年	第一學期 學院課程：一至兩科 主修必修科目： 主修選修科目：	3-6
	第二學期 學院課程：一至兩科 主修必修科目： 主修選修科目：	3-6
第二修業學年	第一學期 主修必修科目：BCHE2030, BIOL2120 主修選修科目：	6
	第二學期 主修必修科目：BCHE2000, 3050, 3070, 3650, BIOL2313, 2410 主修選修科目：	10
第三修業學年	第一學期 主修必修科目：BCHE3030, 3092, 3730 主修選修科目：一至兩科	8 3-6
	第二學期 主修必修科目：BCHE3040, 3080	6

	主修選修科目：一至兩科	3-6
第四修業學年	第一學期 主修必修科目： 主修選修科目：一至兩科	 3-6
	第二學期 主修必修科目： 主修選修科目：兩至三科	 5-8
	合共（包括學院課程）：	**59**

生物化學 — 科研星耀專修範圍（STARS）		
	修課推介	學分
第一修業學年	第一學期 學院課程：兩科 主修必修科目： 主修選修科目：	 6
	第二學期 學院課程：兩科 主修必修科目： 主修選修科目：	 6
	暑期課程 STARS：STAR2050	 1
第二修業學年	第一學期 主修必修科目：BCHE2030, BIOL2120 主修選修科目： STARS：STAR2000	 6 1
	第二學期 主修必修科目：BCHE2000, 3050, 3070, 3650, BIOL2313, 2410 主修選修科目： STARS：STAR3050	 10 1
第三修業學年	第一學期 主修必修科目：BCHE3030, 3092, 3730 主修選修科目：一至兩科 STARS：STAR3000	 8 3-6 2
	第二學期 主修必修科目：BCHE3040, 3080 主修選修科目：一至兩科 STARS：STAR4050	 6 3-6 1
第四修業學年	第一學期 主修必修科目： 主修選修科目：BCHE4902[@] 及一科	 5-6
	第二學期 主修必修科目： 主修選修科目：BCHE4903[@] 及一至兩科	 5-8
	合共（包括學院課程）：	**68**

[@] 學生可以 BCHE4902 及 4903 代替 STAR4000。

副修課程名稱
生物化學

副修課程要求

學生須至少修畢以下科目共 21 學分，其中至少 6 學分為 3000 或以上程度之科目：

		學分
1.	必修科目： BCHE2030, 3030, 3080, 3730	11
2.	選修科目： BCHE3050, 3070, 3110, 3650^, 4030, 4040, 4060, 4070, 4080, 4090, 4130, 4640^, 4760^, 4830^	10
	共：	**21**

註：
1. 有^的科目為實驗科目。
2. 學生分別用作符合其主修課程及其他副修課程之要求的科目，不多於 10 學分亦可用作符合本副修課程的科目要求。

科目總表

科目編號	*科目名稱*	*學分*
BCHE2000	生物化學專題簡介	2
BCHE2030	基礎生物化學	3
BCHE2070	研究實習	2
BCHE3030	生物化學方法	3
BCHE3040	蛋白質與酶	3
BCHE3050	分子生物學	2
BCHE3070	重組 DNA 技術	1
BCHE3080	生物能量與新陳代謝	3
BCHE3092	生物化學自學單元及專業發展	3
BCHE3110	化學生物學	3
BCHE3650	分子生物及重組 DNA 實驗	2
BCHE3730	分析生物化學實驗	2
BCHE4030	臨牀生物化學	3
BCHE4040	神經科學概論	3
BCHE4060	基礎及應用免疫學	3
BCHE4070	生化實驗室管理與認證	3
BCHE4080	生物化學鑑證	2
BCHE4090	運動生物化學	2
BCHE4130	分子內分泌學	3
BCHE4640	神經科學概論實驗	2
BCHE4760	免疫學及血液學實驗	2
BCHE4830	醫學生物化學實驗	2

BCHE4901	實驗專題討論（一）	2
BCHE4902	實驗專題討論（二）	2
BCHE4903	實驗專題討論（三）	2
STAR2000	科研培訓（一）	1
STAR2050	學術報告（一）	1
STAR3000	科研培訓（二）	2
STAR3050	學術報告（二）	1
STAR4000	科研培訓（三）	3
STAR4050	學術報告（三）	1