					1 st	year			2 nd	year			3 rd	year			4 th	year		
	Course	Credits	Hours	Fa			ring	Fa	all		ing	Fa			ing	Fa			ring	Note
				class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
Core Required Courses	Chinese Literature: Appreciation and Creative Writing 1	2	2	2																
	Chinese Literature: Appreciation and Creative Writing 2	2	2		2															
	Practical English 1	0	2	1	1															Note 1
	Practical English 2	0	2			1	1													Note 1
	Practical English 3	0	2					1	1											Note 1
	Practical English 4	0	2							1	1									Note 1
	English for Business Communication 1	2	3									2	1							Note 1
	English for Business Communication 2	2	3											2	1					Note 1
	Practical English of Professionals 1	2	3													2	1			Note 1
	Practical English of Professionals 2	2	3															2	1	Note 1
	Applied Information Technology: Office Software	2	3	2	1															Note 1
	Programming Design	2	3			2	1													Note 1
	General Ed	12	12																	Note 2
	Physical Education (1)~(4)	0	8	2		2		2		2										
	Subtotal	28																		
Professional	Calculus	3	4	3	1															
Required Courses	Fundamental Chemistry (E)	3	3	3																
	Fundamental Chemistry Lab (E)	1	3	1	2															

				1 st	year			2 nd	year			3 rd	year			4 th	year		
Course	Credits	Hours		all	Spi	ring	Fa		Spr	ing		all	Spi	ing		all	Spi	ring	Note
			class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
Physics principles for biologist	3	3	3																
General Biology-1	3	3	3																
General Biology Lab1	1	3	1	2															
General Biology-2	3	3			3														
General Discussion on	2	2			2														
Biotechnology		-																	
Organic Chemistry	3	3			3	2													
Organic Chemistry Lab.	1	3			1	2											1		
Laws, Standards, and Academic Ethics on	2	2			2														
Biotechnology																			
Freshman Seminar	1	1	1																
Analytical Chemistry(Lab)	3	3					3												
Biochemistry-1	4	4					4												
Biochemistry Lab1	1	3					1	2											Service Learning
Biochemistry-2	4	4					1		4										Service Learning
Microbiology	3	3							3										
Microbiology Lab.	1	3							1	2									
Cell Biology	3	3							1		3								
Cell Biology Lab.	1	3									1	2							
Bioinformatics-1	2	3									1		2	1					Computer courses
Molecular Biology	3	3									3			1					Computer courses
Biostatistics	3	3									3								
Laboratory Quality	3	3									3		3						
Management System	J	<i>3</i>											<i>J</i>						
Research Training 1	1	1											1						
Research Training 2	1	1													1				alternative courses: Internship in Industry

							year			2 nd y					year				year		Note
	Cours	e	Credits	Hours	Fa			ring		all		ring	Fa		Spi			all		ring	
					class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class		class	lab	
		Seminar 1	1	1													1	0			
		Seminar 2	1	1															1	0	
		Subtotal	61																		
		Subtotal Required	89																		
		Course Credits																			
Professional	Biomedical	Animal Physiology	3	3					3												
Elective	Program	Animal Cell Culture	2	2							2										
Courses		and Application																			
		Immunology	3	3									3								
		Vaccine &	3	3											3						
		Vaccination																			
		Laboratory Animal	3	3															3		
		Medicine																			
		Gene Transfer	2	2															2		
		Virology	3	3													3				
		Genomics	3	3							3										
		Molecular genetics	3	3					3												
		and applications																			
		Special Topics to	3	3							3										
		Genome Project &																			
		Annotation																			
		Introduction to	3	3					3												
		Pharmacy	2	2									2								
		Bioinorganic Chemistry	3	3									3								
		Applied	3	3									3								
		Bioinstrumentation																			
		and Analysis																			
		Bioinformatics-2	2	3		-											2	1			Computer courses
		Special Topics in	3	3											3						
		Molecular Biology																			

Course						year			2 nd y					year				year		Note
Cou	rse	Credits	Hours		all		ing		all		ing	Fa			ing		all		ring	
ı				class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
	Proteomic	3	3											3						
	technology																			
	application																			
	Developmental and	3	3											3						
	stem cell biology																			
	Protein Separation	2	2													2				
	and Two																			
	Dimensional																			
	Electrophoresis																			
	Protein preparation	2	2															2		
	and mass spectrum																			
	analysis																			
Biofood	Nutrition	3	3					3												
Program	Introduction to	3	3					3												
	Biochemistry																			
	Engineering																			
	Plant Physiology	3	3					3												
	Cosmetics Science	3	3					3												
	Herb Plant	3	3					3												
	Cultivation and																			
	Application																			
	Nutrition (E)	3	3							3										
	Food Chemistry	3	3							3										
	Food Analysis (Lab)	3	3							3										
	Tissue culture and	3	3							3										
	Application																			
	Environmental	3	3							3										
	Ecology																			
	Food Microbiology	3	3									3								
	(Lab)																			

				1 st y	ear			2 nd y	ear			3 rd y	year			4 th	year		Note
Course	Credits	Hours	Fall	1	Spr	ing	Fa	ıll	Spr	ring	Fa	ıll	Spr	ing	Fa	all	Spi	ing	
<u></u>			class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	
Agriculture and	2	2									2								
Food Industrial																			
Waste Management																			
The Principle and	3	3									3								
Practice of																			
Aquaponics																			
Enzymology	3	3											3						
Food Safety	3	3											3						
Fermentation	3	3											3						
The Science and	3	3											3						
Culture Behind Food																			
Material																			
Food Process (Lab)	3	3													3				
D:	2	2													2				
Dietary Supplements	3	3													3				
and Functional																			
Foods	1 - 2																		
以上專業選修學程至少需修 20 個學分	→ Profess	ional ele	ctives m	nust b	e sele	cted at	least 2	20 cred	dit hou	ırs									

					1 st	year			2 nd	year			3 rd	year			4 th	year		
	Course	Credits	Hours	Fa	all	Spr	ing	Fa	ıll	Spr	ing	Fa		_	ing	Fa	all		ing	Note
				class	lab	class	lab													
Other	Fundamental Chemistry (E)	3	3	3																
Elective	Fundamental Chemistry Lab (E)	1	3	1	2															
Course	General Biology I (E)	3	3	3																
	General Biology Lab I (E)	1	3	1	2															
	Microbiology (E)	3	3					3												
	Microbiology Lab (E)	1	3					1	2											
	Biochemistry I (E)	4	4					4												
	Biostatistics (E)	3	3									3								
	Programming Design-1	2	3					2	1											
	Programming Design-2	2	3							2	1									

General Biology Lab2	1	3				1	2					
Bioorganic Chemistry	2	2			2							
Biotechnology Law	2	2				2						
Ecology	2	2						2				
International Biotech Industry								2				
Military Training-1	0	2	2									1-semester courses
Military Training-2	0	2		2								1-semester courses
Nursing-1	0	2	2									1-semester courses
Nursing-2	0	2		2								1-semester courses
Research Paper Writing	1	1							1			
Internship in Industry	1	1								1		
Biosensor	3	3								3		
Biotechnical Intellectual Property Rights and Patents	2	2								2		
Introduction of Bioindustry	2	2								2		
Physic Chemistry	3	3								3		
Subtotal Required Course Credits	89											
Subtotal Elective Course Credits	39											
Subtotal Professional Elective Course Credits	20											
Subtotal Elective courses from other schools	19											
Grand Total	128											

Notes:

- 1.In accordance with the General Provisions for Study, undergraduate students need to satisfactorily complete Service Learning, meet the university-wide basic competencies of English, Information Technology, Chinese, and Sports, and pass the core competencies of their department to be eligible for graduation.
- 2.Students who entered in and since the 2008-09 academic year need to complete at least 12 General Education course credits. General Education courses are divided into three areas: Humanities, Social Science, and Natural Science. Each area is divided into two subcategories: core and extended. Students need to take 1 two-credit course in both of the subcategories within each area to be eligible for graduation. Only 12 course credits will be counted toward graduation. Additional course credits earned in General Education courses are not counted toward graduation.
- 3. Elective credits of the other departments are, at most, 19 credits. Course credits from the "Teacher Education Program" of the Teacher Education Center cannot be counted toward students' final grades.

- 4. Students can choose the course (E) from BT, which can be counted as their graduation credits under the approval of the department chair, can be included in the elective credits of the department, and can be applied retroactively to students who entered the university before the 2024-2025 academic year.
- 5. The newly added elective courses in this academic year can be applied retroactively to students who entered the university prior to the 2024-2025 academic year.
- 6. When taking and retaking professional courses, students can choose the same course name, the same course name (E), or the same course content as substitutions under the approval of the department chair. These courses can be regarded as graduation credits and applied retroactively to students who entered the university before the 2024-2025 academic year.
- 7.Students can choose the course from BT master program, which can be counted as their graduation credits under the approval of the department chair, and can be applied retroactively to students who entered the university prior to the 2024-2025 academic year.
- 8. Professional Electives can be selected from two programs of study, students must first complete one of these of study, each consisting of at least 15 course credits.
- 9. Professional electives must be selected at least 20 credit hours.
- 10. When retaking the Calculus course, students can choose Calculus I or Calculus II course as substitutions under the approval of the department chair. These courses can be regarded as their graduation credits, and can be applied retroactively to students who entered the university prior to the 2024-2025 academic year.
- 11. The credits of interdisciplinary focused course program are not included in course structure diagram that can be regarded as the other department credits
- 12. The required courses on this Course Outline may be counted as elective course credits toward total graduation credits by students who entered the university prior to the 2024 academic year.
- 13. Graduating students and students in the extended study period who did not pass required courses of Physical Education can waive a maximum of two (2) required Physical Education courses by passing Comprehensive Physical Education II. This regulation is applicable for those admitted in and prior to 2020-21 academic year.
- 14. If International students, overseas students or students from Hong Kong and Macao are not good at Chinese, they can take the courses of Basic Chinese I & II through International College instead of taking Chinese Literature: Appreciation and Creative Writing I & II. This regulation can be applied to students who entered the university prior to the 2021-22 academic year.
- 15. Research Project II and Internship in Industry are optional courses. Students who conduct the type of Research Project I could take the Research Project II continuously or take the Internship in Industry. Both ways will be acceptable for graduation criteria.
- 16. If International students, overseas students or students from Hong Kong and Macao are not good at Chinese, they can take the courses of Basic Chinese I & II or Chinese Literature I & II through International College instead of taking Chinese Literature: Appreciation and Creative Writing I & II. This regulation can be applied to students who entered

the university prior to the 2023-24 academic year.