(For students admitted in 2020-21 under the 4-year degree)

BSc in Biotechnology

In addition to the requirements of their major programs, students are required to complete the University and School requirements for graduation. For details please refer to the respective sections on this website.

Some courses used to fulfill Major and/or School Requirements can also fulfill University Common Core Requirements. Students may reuse a maximum of 9 credits of these courses to count towards Common Core Requirements.

Students may use no more than 6 credits earned from courses offered in self-paced online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

Some courses in the curriculum have been previously coded with CORE-prefix where the special CORE-prefix has been replaced by the domain code of courses starting from Fall 2023-24. Students who have registered with these CORE-coded courses may look up their latest course codes by consulting the conversion table published on the Common Core website.

Major Requirements

Students MUST take the following courses prior to enrollment into the major

Major Pre-requisite course(s)

			Credit(s) attained
LIFS		Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1901	0-3
LIFS	1901	General Biology I	3
LIFS	1902	General Biology II	3

Required Course(s)

			Credit(s) attained
LIFS		Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1903	0-1
LIFS	1903	Laboratory for General Biology I	1
LIFS	1904	Laboratory for General Biology II	1
LIFS	2040	Cell Biology	3
LIFS	2070	Introduction to Biotechnology	3
LIFS	2080	Plant Biology	3
LIFS	2210	Biochemistry I	3

LIFS	3060	Microbiology	3
LIFS	3110	Biotechnological Application of Recombinant DNA Techniques	3
LIFS	3140	General Genetics	4
LIFS	4150	Plant Biotechnology	3
LIFS	4200	Concepts and Issues in Contemporary Biotechnology	3
LIFS/SCIE		Note: LIFS 4963 OR (LIFS 4973 AND LIFS 4983) OR (SCIE 4500 AND LIFS 4983) (Students following IRE Track can only use (SCIE 4500 AND LIFS 4983) to fulfill the requirement.)	3-7
LIFS	4963	Biotechnology Capstone Project	3
LIFS	4973	Biotechnology Project Research I	3
LIFS	4983	Biotechnology Project Research II	4
SCIE	4500	IRE Research Project II	3
CHEM		Note: CHEM 1010 OR CHEM 1020	3
CHEM	1010	General Chemistry IA	3
CHEM	1020	General Chemistry I	3
CHEM	1030	General Chemistry II	3
CHEM	1050	Laboratory for General Chemistry I	1
CHEM	1055	Laboratory for General Chemistry II	1
CHEM		Note: CHEM 2110 OR CHEM 2311	3
CHEM	2110	Organic Chemistry I	3
CHEM	2311	Analytical Chemistry	3
CHEM		Note: CHEM 2155 OR CHEM 2355	1
CHEM	2155	Fundamental Organic Chemistry Laboratory	1
CHEM	2355	Fundamental Analytical Chemistry Laboratory	1
CENG	1600	Biotechnology and Its Business Opportunities	3
LANG		Note: LANG 3024 OR LANG 3027 (Students following IRE Track should take LANG 3027 to fulfill the requirement.)	3
LANG	3024	Science Communication in English (Life Science)	3
LANG	3027	Science Communication in English for Research Students	3

Elective(s)

			Minimum credit(s) required
LIFS/BIPH/ BTEC/OCES/ PHYS/BIEN/ CENG		Biotechnology Electives (Courses from the specified elective list; Students following IRE Track are required to take a minimum of 15 credits; while others a minimum of 18 credits. Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.)	15-18
LIFS	1030**	Environmental Science	3
LIFS	2010	Modern Approaches to Biochemical and Cell Biological Research	3
LIFS	2060	Biodiversity	3
LIFS	2240	Cell Biology Laboratory	3

LIFS	2280	Plant Biology Laboratory	3
LIFS	2720	Biochemistry Laboratory	2
LIFS	2820	Biochemical Laboratory Techniques	1
LIFS	3010	Molecular and Cellular Biology I	3
LIFS	3020	Molecular and Cellular Biology II	3
LIFS	3040	Animal Physiology	3
LIFS	3150	Biostatistics	3
LIFS	3220	Animal Physiology Laboratory	3
LIFS	3260	Microbiology Laboratory	3
LIFS	3370	Human Genetics in Practice	3
LIFS	3580	Bioinformatics	3
LIFS	4000	Special Topics in Life Science	1-4
LIFS	4140	Cancer Biology	3
LIFS	4320	Data Science for Biology and Medicine	3
LIFS	4360	Aquaculture Biotechnology	3
LIFS	4370	Human Genetics and Personalized Medicine	3
LIFS	4380	Pharmacology and Toxicology	3
LIFS	4540	Structure and Function of Proteins	3
LIFS	4550	Biochemistry of Nutrition	3
LIFS	4630	Advanced Topics in Biotechnology	3
LIFS	4760	Biochemistry of Diseases	3
LIFS	4800	Epigenetics and Chromosome Biology	3
LIFS	4820	Entrepreneurship in Biotechnology	3
LIFS	4973	Biotechnology Project Research I	3
LIFS	4983	Biotechnology Project Research II	4
BIPH	3010	Advanced Biological Physics	3
BIPH	4010	Principles of Quantitative Instrumentation	3
BTEC	5210	Principles and Application in Biotechnology	4
BTEC	5340	Biomarkers and Medical Devices	3
OCES	1030	Environmental Science	3
PHYS	2010	Introductory Biological Physics	3
BIEN	5050	Global Health Ethics	3
CENG	2110	Process and Product Design Principles	3
CENG	4620	Bioproducts and Processing	3
CENG	4670	Pharmaceutical Engineering	3

Track Study

International Research Enrichment Track

Students in the IRE Track should also take SCIE 4500 and LIFS 4983 as specified in the major requirements.

Required Course(s)

			Credit(s) attained
LIFS	3520	Junior Research Project II	2
SCIE	3500	IRE Research Project I	3

***Remarks on course(s):*

- LIFS 1030: The course was last offered in 2020-21 and was deleted subsequently.