

The Hong Kong University of Science and Technology

School of Science

An Example on Student's Pathway (as of 25 July 2023)

<< Declaration of major

School:		School of Science			Student's Pathways (i.e. Study Pattern)										Remarks
Department:		Division of Life Science			Pathway 1										
Program:		BSc in Biotechnology			Background:										
Course Offering Dept (course code prefix)		Course Code	Course Title / Courses List	Credits	Major Pre-requisite	Year 1 Fall	Year 1 Spring	Year 2 Fall	Year 2 Spring	Year 3 Fall	Year 3 Spring	Year 4 Fall	Year 4 Spring	Sub-total	
School Requirements															
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011 Introduction to Computer Science		3-4				3						3	
COMP	1022P	Introduction to Computing with Java		3											
COMP	2011	Programming with C++		4											
LANG	2010	English for Science I		3						3				3	
LIFS	1901	Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1901 General Biology I		0-3	@	3								3	
LIFS	1902	General Biology II		3	@		3							3	
CHEM	1008	Introductory Chemistry		3										0	
CHEM	1020	General Chemistry I		3		3								3	
CHEM	1030	General Chemistry II		3			3							3	
CHEM	1050	Laboratory for General Chemistry I		1		(1)								0	
CHEM	1055	Laboratory for General Chemistry II		1			(1)							0	
LIFS	1030**	Environmental Science		3										0	
LIFS	1903	Laboratory for General Biology I		1		1								1	
LIFS	1904	Laboratory for General Biology II		1			(1)							0	
LIFS	1930	Nature of Life Sciences		3										0	
LIFS	2210	Biochemistry I		3				3						3	
MATH	1012	Calculus IA		4										0	
MATH	1013	Calculus IB		3		3								3	
MATH	1014	Calculus II		3										0	
MATH	1020	Accelerated Calculus		4										0	
MATH	1023	Honors Calculus I		3										0	
MATH	1024	Honors Calculus II		3										0	
MATH	2023	Multivariable Calculus		4										0	
MATH	2121	Linear Algebra		4										0	
MATH	2131	Honors in Linear and Abstract Algebra I		4										0	
OCES	1010	Principles and Applications of Environmental Science		3										0	
PHYS	1101	Introductory Physics		4			4							4	
PHYS	1111	General Physics I		3										0	
PHYS	1112	General Physics I with Calculus		3										0	
PHYS	1113	Laboratory for General Physics I		1										0	
PHYS	1114	General Physics II		3										0	
PHYS	1115	Laboratory for General Physics II		1										0	
PHYS	1312	Honors General Physics I		3										0	
PHYS	1314	Honors General Physics II		3										0	
Required credits for School / Major Pre-requisite Requirements														29	
Major Requirements															
Major Required Courses and Electives															
LIFS	1903	Note: Students with level 3 or above in HKDSE 1x Biology are exempted from taking LIFS 1903 Laboratory for General Biology I		0-1		(1)								0	
LIFS	1904	Laboratory for General Biology II		1			1							1	
LIFS	2040	Cell Biology		3				3						3	
LIFS	2070	Introduction to Biotechnology		3				3						3	
LIFS	2080	Plant Biology		3					3					3	
LIFS	2210	Biochemistry I		3				(3)						0	
LIFS	2220	Biochemistry II		3					3					3	
LIFS	3150	Biostatistics		3					3					3	
LIFS/SCIE	4963	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.) Biotechnology Capstone Project		3-7								[3]	3	3	
LIFS	4973	Biotechnology Project Research I		3											
LIFS	4983	Biotechnology Project Research II		4											
SCIE	4500	IRE Research Project II		3											
CHEM	1020	General Chemistry I		3		(3)								0	
CHEM	1030	General Chemistry II		3			(3)							0	
CHEM	1050	Laboratory for General Chemistry I		1		1								1	
CHEM	1055	Laboratory for General Chemistry II		1			1							1	
CHEM	2111	Note: CHEM 2111 OR CHEM 2311 Fundamentals of Organic Chemistry		3						3				3	
CHEM	2311	Analytical Chemistry		3											
CHEM	2155	Note: CHEM 2155 OR CHEM 2355 Fundamental Organic Chemistry Laboratory		1						1				1	
CHEM	2355	Fundamental Analytical Chemistry Laboratory		1											
LANG	3024	Note: LANG 3024 OR LANG 3027 (Students following the Applied Bioscience Track / Entrepreneurship Track should take LANG 3024 to fulfill the requirement. Students following IRE Track should take LANG 3027 to fulfill the requirement.) Science Communication in English (Life Science)		3								[3]	3	3	
LANG	3027	Science Communication in English for Research Students		3											
LIFS/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					3		6	3	6	18	
Required credits for Major Required Courses and Electives				52-60										46	
Track Study															
Applied Bioscience Track															
LIFS	3040	Animal Physiology		3								3		3	
LIFS	3060	Microbiology		3				3						3	
LIFS	4370	Human Genetics and Personalized Medicine		3								3		3	
LIFS		Applied Bioscience Elective (3 courses from the specified list)		9						3		3	3	9	
Required credits for Applied Bioscience Track				18										18	
University CORE															
CORE	C3 - C10	U CORE - Others		24		1	2	3	3	6	3	3	3	24	
CORE	C1 & C2	U CORE - English Language		6		3	3							6	
Sub-total for University CORE				30										30	
Term load (excl. free credits)															
15 17 15 18 12 16 12 18															
123#															

Notes:

@ Course that students need to complete before enrolling into respective major/programs.

() indicates the reuse of the same course to fulfill more than one requirement.

[] denotes the course is also offered in other terms as indicated and students may take the course in one of these terms subject to advice by the program office.

To graduate, students should complete at least 120 credits in approved courses. They may need to take courses additional to the required and elective courses as specified above to meet this minimum credit requirement.

**Remarks on course(s):

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

>> The content of this example is not necessarily equivalent to a complete list of graduation requirements of the program. Students should refer to the Program Catalog for updated graduation requirements. For up-to-date information on course offering and scheduling, students should check it out from respective School and Department.

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Track Study																				
Entrepreneurship Track																				
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	4820	Entrepreneurship in Biotechnology		3																
CENG	1600	Biotechnology and Its Business Opportunities		3																
Required credits for Entrepreneurship Track				19																19
University CORE																				
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Sub-total for University CORE				30																30
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