

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:		School of Science			Pathway 1										
Program:		BSc in Data Analytics in Science			Background: SBA. Normative students to graduate with one of the Tracks. Profile: HKDSE 1XBIOL, 1XCHEM										
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			3-4										
COMP	1022P	Introduction to Computer Science			3			3							3
COMP	2011	Introduction to Computing with Java			4										
COMP	2011	Programming with C++			4										
LANG	2010	English for Science I			3			3							3
MATH		Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]			4-7										
MATH	1012	Calculus IA			4										
MATH	1013	Calculus IB			3										
MATH	1014	Calculus II			3	@	4	3							7
MATH	1020	Accelerated Calculus			4										
MATH	1023	Honors Calculus I			3										
MATH	1024	Honors Calculus II			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								1
CHEM	1055	Laboratory for General Chemistry II			1										0
LIFS	1030**	Environmental Science			3										0
LIFS	1901	General Biology I			3										0
LIFS	1902	General Biology II			3			3							3
LIFS	1903	Laboratory for General Biology I			1										0
LIFS	1904	Laboratory for General Biology II			1										0
LIFS	1930	Nature of Life Sciences			3										0
LIFS	2210	Biochemistry I			3				3						3
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														30	
Major Requirements															
Major Required Courses and Electives															
DASC	2010	Calculus for Data Analytics in Science			3			3							3
DASC	2020	Applied Linear Algebra for Data Analytics in Science			3				3						3
DASC	2110	Object-oriented Programming for Data Analytics in Science			3				3						3
DASC	2210	A Survey on Big Data in Science and Society			1			1							1
DASC	2220	Statistics and Probability for Data Analytics in Science			3				3						3
DASC	3120	Data Structures for Data Analytics in Science			3					3					3
DASC	3230	Statistical Modeling for Data Analytics in Science			3					3					3
DASC	3240	Data Visualization in Science			3						3				3
DASC	3250	Numerical Methods for Data Analytics in Science			3						3				3
DASC	4300	Capstone Project for Data Analytics in Science			3							3			3
COMP	1021	Introduction to Computer Science			3			(3)							0
SOSC		Social Science Electives (2 courses from the specified elective list, of which 1 course should be taken from Group 1 and 1 course from Group 2)			6							3	3		6
Required credits for Major Required Courses and Electives					37									34	
Track Study															
Applied Biosciences Track															
LIFS	1901	General Biology I			3										0
LIFS	1902	General Biology II			3	(3)									0
LIFS	2040	Cell Biology			3				3						3
LIFS	3140	General Genetics			4					4					4
LIFS	3580	Bioinformatics			3						3				3
LIFS	4320	Data Science for Biology and Medicine			3							3			3
LANG	3024	Science Communication in English (Life Science)			3						3				3
Required credits for Applied Biosciences Track					22									16	
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)															
12 14 16 15 16 15 9 13															
110#															

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.

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.