

The Hong Kong University of Science and Technology

School of Science

An Example on Student's Pathway (as of 2 August 2021)

<< 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															
SCIE	1000	Science School Induction	0		0	0							0		
COMP	1021	Note: COMP 1021 OR COMP 1022P OR COMP 2011	3-4										3	COMP1021 is in Major Requirements	
COMP	1022P	Introduction to Computer Science	3					3							
COMP	2011	Introduction to Computing with Java	3												
COMP		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											MATH1012 and MATH1014	
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	1004	Chemistry in Everyday Life	3										0		
CHEM	1010	General Chemistry IA	3										0		
CHEM	1020	General Chemistry IB	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	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	1030	Environmental Science	3										0		
PHYS	1001	Physics and the Modern Society	3									3	3		
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															
DASC	2010**	Calculus for Data Analytics in Science	3				3						3		
DASC	2020**	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	Student may be exempted from this course if attained a pass in HKDSE 1x BIOL	
LIFS	1902	General Biology II	3		(3)								0		
LIFS	2040	Cell Biology	3					3					3		
LIFS	3140	General Genetics	4						3				3		
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										15		
University CORE															
CORE	C3 - C12	U CORE - Others	30		3			3	6	6	6	6	30		
CORE	C1 & C2	U CORE - English Language	6		3	3							6		
Sub-total for University CORE			36										36		
													Term load (excl. free credits)		
					14	12	13	15	15	15	15	15			
													114#		

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):

- DASC 2010: This is a new course to take effect in Fall, 2022-23.
- DASC 2020: This is a new course to take effect in Fall, 2022-23.
- DASC 2210: This is a new course to take effect in Fall, 2022-23.
- DASC 2220: This is a new course to take effect in Fall, 2022-23.
- DASC 3120: This is a new course to take effect in Fall, 2022-23.
- DASC 3230: This is a new course to take effect in Fall, 2022-23.
- DASC 3240: This is a new course to take effect in Fall, 2022-23.
- DASC 3250: This is a new course to take effect in Fall, 2022-23.
- DASC 4300: This is a new course to take effect in Fall, 2022-23.

>> 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/UG Curriculum Handbook for updated graduation requirements. For up-to-date information on course offering and scheduling, students should check it out from respective School and Department.