

Curriculum for BSc in Biology and Science Education

Major Program Requirements

Core courses

BIOL 104	Cell Biology	[3-0-0:3]
BIOL 106	Biodiversity	[3-0-0:3]
BIOL 108	Plant Biology	[3-0-0:3]
BIOL 124	Cell Biology Laboratory	[0-2-3:3]
BIOL 128	Plant Biology Laboratory	[0-2-3:3]
BIOL 202	Animal Physiology	[3-0-0:3]
BIOL 206	Microbiology	[3-0-0:3]
BIOL 211	General Genetics	[3-1-0:4]
BIOL 216	Ecology	[3-0-0:3]
BIOL 222	Animal Physiology Laboratory	[0-2-3:3]
BIOL 226	Microbiology Laboratory	[0-2-3:3]

Required courses

BICH 121	Introduction to Biochemistry	[3-0-0:3]
BICH 172	Introductory Biochemical Laboratory	[0-0-6:2]
BICH 182	Biochemical Laboratory Techniques	[1-0-0:1]
SCED 213	Foundations and Processes of Learning	[3-0-0:3]
SCED 214	Managing Diversity in the Classroom	[3-0-0:3]
SCED 311	Philosophical and Sociological Perspectives in Education	[3-0-0:3]
SCED 314	Curriculum and Assessment	[3-0-0:3]
SCED 315	The Professional Teacher in Classroom, School and Community	[3-0-0:3]
SCED 321	Foundations of Science Education	[3-0-0:3]
SCED 322	Teaching and Learning Integrated and Applied Science	[3-0-0:3]
SCED 323	Learning Science in the Community	[3-0-0:3]
SCED 324	Science, Design and Technology, and Society	[3-0-0:3]
SCED 325	Field Experience for Science Teaching (I)	[2 credits]
SCED 326	Field Experience for Science Teaching (II)	[6 credits]
SCED 331	Foundation Studies in the Teaching and Learning of Biology	[3-0-0:3]
SCED 332	Advanced Studies in the Teaching and Learning of Biology	[3-0-0:3]

Elective courses

Elective types		Minimum no. of courses	Minimum total credits
(1) BISC	Biological Science Elective	2	6
(2) COMP	Computer Science Elective	1	3
(3) SCIE	Science Elective	7	21
FREE	Free Elective	2	6

General Education Requirements

Electives must be selected from amongst those general education courses that are listed under the section "Designated General Education Courses".

Elective types		Minimum no. of courses	Minimum total credits
GEE(ENGG)	Engineering General Education Elective	1	6
GEE(SB&M)	Business and Management General Education Elective	1	
(4) GEE(H&SS)	Humanities and Social Science General Education Elective	4	12

Required Courses in English Communication

LANG 108	English for Science Students	[0-2-0:2]
LANG 208	Technical Communication for Science Students I	[0-2-0:1]
LANG 209	Technical Communication for Science Students II	[0-2-0:1]
LANG 308	Technical Communication for Science Students III	[0-2-0:1]

Other Requirement:

(5) HLTH 001	Healthy Life Style	[0 credit]
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Notes:

- (1) Students have to elect two BISC courses at the 300-level.
- (2) COMP 101 is a recommended elective which may be replaced by another approved COMP elective.
- (3) Science Elective courses have to be chosen from the following two groups of courses, with a minimum of three courses from each group.
Group A: CHEM 101, CHEM 102, CHEM 131, CHEM 141
Group B: PHYS 002/007, PHYS 111, PHYS 112, PHYS 126
- (4) Of these courses, at least one course in Humanities and one in Social Science are required.
- (5) Students are required to take and pass this course in their first year of study. Details of the course and its requirements are announced on the course website <http://www.ab.ust.hk/sao/HLTH001> managed by the Student Affairs Office.

A minimum of 140 credits is required for the BSc program in Biology and Science Education.

Recommended Pattern of Study for BSc in Biology and Science Education

1st year	Fall	C BIOL 104, BIOL 106, BIOL 124 R BICH 121, BICH 172, BICH 182, HLTH 001, LANG 108 E GEE(H&SS)	(Total: 18 credits)
	Spring	C BIOL 108, BIOL 128 R HLTH 001, LANG 108 E COMP 101, SCIE(A), SCIE(B), GEE(H&SS)	(Total: 20* credits)
2nd year	Fall	C BIOL 211, BIOL 216 R LANG 208, SCED 213, SCED 214 E GEE(ENGG)	(Total: 17 credits)
	Spring	C BIOL 202, BIOL 206, BIOL 222, BIOL 226 R LANG 209 E SCIE(A), SCIE(B)	(Total: 19 credits)
3rd year	Fall	R SCED 311, SCED 321, SCED 323, SCED 324, SCED 325, SCED 331	(Total: 17 credits)
	Spring	E BISC, SCIE(A), SCIE(B), GEE(H&SS), FREE	(Total: 15 credits)
4th year	Fall	R LANG 308 E BISC, SCIE(A)/(B), GEE(SB&M), GEE(H&SS), FREE	(Total: 16 credits)
	Winter	R SCED 314, SCED 315, SCED 322, SCED 332	(Total: 12# credits)
	Spring	R SCED 314, SCED 315, SCED 322, SCED 326, SCED 332	(Total: 18# credits)

* LANG 108 is a two-semester course. The course credit will be earned on completion of the course at the end of 1st year Spring.

Work in SCED 314, SCED 315, SCED 322 and SCED 332 commence in 4th year Winter. The course credits will be earned on completion of the course at the end of 4th year Spring.

C = core course; R = required course; E = elective course