

The Hong Kong University of Science and Technology

School of Science

An Example on Student's Pathway (as of 26 July 2024)

<< 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 Biochemistry and Cell Biology | | | Background: HKDSE 4 Core + 2 Elec (incl. 1/2x BIOL, 1/2x CHEM) | | | | | | | | | | |
| | | | | | Profile: Normative | | | | | | | | | | |
| 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 | | | | | | | | | | | | |
| COMP | 1022P | Introduction to Computer Science | 3 | | | | | | 3 | | | | 3 | | |
| COMP | 2011 | Introduction to Computing with Java 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 | 0-3 | @ | 3 | | | | | | | | 3 | | |
| LIFS | 1902 | General Biology I | 3 | @ | | | | | | | | | 3 | | |
| CHEM | 1004 | Chemistry in Everyday Life | 3 | | | 3 | | | | | | | 0 | | |
| CHEM | 1010 | General Chemistry IA | 3 | | | | | | | | | | 0 | | |
| CHEM | 1011 | General Chemistry A: Reactions, Thermodynamics, and Reaction Kinetics | 3 | | | | | | | | | | 0 | | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | | | | | | | | | | 0 | | |
| CHEM | 1051 | Laboratory for General Chemistry A | 1 | | | | | | | | | | 0 | | |
| CHEM | 1052 | Laboratory for General Chemistry B | 1 | | | | | | | | | | 0 | | |
| DASC | 2010 | Calculus for Data Analytics in Science | 3 | | | | | | | | | | 0 | | |
| LIFS | 1030** | Environmental Science | 3 | | | | | | | | | | 0 | | |
| 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 | | | | | | | | | | 0 | | |
| MATH | 1012 | Calculus IA | 4 | | | | | | | | | | 0 | | |
| MATH | 1013 | Calculus IB | 3 | | | | | | | | | | 0 | | |
| 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 | 1001 | The Earth as a Blue Planet | 3 | | | | | | | | | | 0 | | |
| OCES | 1030 | Environmental Science | 3 | | | | | | | | | | 0 | | |
| PHYS | 1001 | Physics and the Modern Society | 3 | | | | | | | | | | 0 | | |
| 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 | | | | | | | | | | | | | 12 | | |
| Major Requirements | | | | | | | | | | | | | | | |
| Major Required Courses and Electives | | | | | | | | | | | | | | | |
| 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 | | (1) | | | | | | | | 0 | | |
| LIFS | 1904 | Laboratory for General Biology II | 1 | | | 1 | | | | | | | 1 | | |
| LIFS | 2010 | Modern Approaches to Biochemical and Cell Biological Research | 3 | | | | 3 | | | | | | 3 | | |
| LIFS | 2040 | Cell Biology | 3 | | | | | 3 | | | | | 3 | | |
| LIFS | 2210 | Biochemistry I | 3 | | | | | | (3) | | | | 0 | | |
| LIFS | 2220 | Biochemistry II | 3 | | | | | | | 3 | | | 3 | | |
| LIFS | 2240 | Cell Biology Laboratory | 3 | | | | | | | | 3 | | 3 | | |
| LIFS | 2720 | Biochemistry Laboratory | 2 | | | | | | | | | 2 | 2 | | |
| LIFS | 2820 | Biochemical Laboratory Techniques | 1 | | | | | | | | 1 | | 1 | | |
| LIFS | 3010 | Molecular and Cellular Biology I | 3 | | | | | | | 3 | | | 3 | | |
| LIFS | 3020 | Molecular and Cellular Biology II | 3 | | | | | | | | 3 | | 3 | | |
| LIFS | 3140 | General Genetics | 4 | | | | | | | | 4 | | 4 | | |
| LIFS/SCIE | | Note: LIFS 4961 OR (LIFS 4971 AND LIFS 4981) OR (SCIE 4500 AND LIFS 4981) (Students following IRE Track can only use (SCIE 4500 AND LIFS 4981) to fulfill the requirement.) | 3-7 | | | | | | | | | | | | |
| LIFS | 4961 | Biochemistry and Cell Biology Capstone Project | 3 | | | | | | | | [3] | 3 | 3 | | |
| LIFS | 4971 | Biochemistry and Cell Biology Project Research I | 3 | | | | | | | | | | | | |
| LIFS | 4981 | Biochemistry and Cell Biology Project Research II | 4 | | | | | | | | | | | | |
| SCIE | 4500 | IRE Research Project II | 3 | | | | | | | | | | | | |
| CHEM | 1010 | Note: CHEM 1010 OR CHEM 1012 | 3 | | | | | | | | | | | | |
| CHEM | 1012 | General Chemistry IA | 3 | | (3) | | | | | | | | 0 | | |
| CHEM | 1012 | General Chemistry B: Atomic Structure, Molecules, and Bonding Theories | 3 | | | | | | | | | | | | |
| CHEM | 1011 | General Chemistry A: Reactions, Thermodynamics, and Reaction Kinetics | 3 | | | | (3) | | | | | | 0 | | |
| CHEM | 1051 | Laboratory for General Chemistry A | 1 | | | | | | | | | | 1 | | |
| CHEM | 1052 | Laboratory for General Chemistry B | 1 | | | 1 | | | | | | | 1 | | |
| CHEM | 2110 | Note: CHEM 2110 OR CHEM 2311 | 3 | | | | | | | | | | | | |
| CHEM | 2311 | Organic Chemistry I | 3 | | | | | 3 | | [3] | | | 3 | | |
| CHEM | 2311 | Analytical Chemistry | 3 | | | | | | | | | | | | |
| CHEM | 2155 | Note: CHEM 2155 OR CHEM 2355 | 1 | | | | | | | | | | | | |
| CHEM | 2355 | Fundamental Organic Chemistry Laboratory | 1 | | | | | | | | | 1 | 1 | | |
| CHEM | 2355 | Fundamental Analytical Chemistry Laboratory | 1 | | | | | | | | | | | | |
| 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 | | | | | | | | 3 | [3] | 3 | | |
| LANG | 3027 | Science Communication in English for Research Students | 3 | | | | | | | | | | | | |
| LIFS/BIOPH/CHEM/OCES/PHYS | | Biochemistry and Cell Biology Electives (Courses from the specified elective list. Students following IRE Track are required to take a minimum of 12 credits; while others should either take a minimum of 20 credits (for those opting for LIFS 4971 & LIFS 4981), or 24 credits (for those opting for LIFS 4961). Courses taken as Major/Track Required Courses may not be counted towards the elective requirement.) | 12-24 | | | | | | | | | | | | |
| Required credits for Major Required Courses and Electives | | | 63-72 | | | | | | | | | | 62 | | |
| University CORE | | | | | | | | | | | | | | | |
| CORE | C3 - C12 | U CORE - Others | 30 | | | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 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) | | | | | | | | | | | | | | | |
| | | | | | 10 | 11 | 12 | 16 | 16 | 18 | 12 | 15 | | | |
| 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.

[] 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.