

Biology
Applicable to students admitted in 2012-13

1. Major Programme

S7 students
Biology Stream

Students are required to complete a minimum of 60 units of courses as follows:

- | | | |
|------|---|----------|
| (i) | Required Courses (Notes): BCHE2030#, BIOL2120, 2210, 2310, 3012, 3022, 3410, 3550 (or 3560/3570), 3610, 3620, LSCI2000#, 2002# | 30 units |
| (ii) | Elective Courses: | |
| (a) | One laboratory course from BIOL2213, 2313, 3413 and another laboratory course from BIOL4012, 4032, MBTE4033# | 3 units |
| (b) | A combination of courses from the following (including at least 18 units from BIOL-coded elective courses): BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL3000, 3310, 3530, 3630, 3710, 4010, 4120, 4210, 4220, 4310, 4430/4440 (or 4431/4451), 4510, 4710, CMBI4201#, 4202#, 4203#, ENSC4260#, FNESC4180#, 4181#, MBTE4320#, 4510#, 4530#, STAT3210# | 27 units |

Total: 60 units

To be included in the Major GPA as well.

| Recommended course pattern | |
|---|-----------------|
| First Year of Attendance | 16 units |
| 1st term: BCHE2030, BIOL2120, LSCI2000, 2002 | |
| 2nd term: BIOL2210, 2310, and at least one laboratory course from BIOL2213, 2313, 3413* | |
| * offered in 1st term of 2nd year of study | |
| Second Year of Attendance | 24 units |
| (a) BIOL3410, 3550 (or 3560/3670), 3610, 3620 | |
| (b) Two courses from BIOL3012, 3022: 4 units | |
| (c) Elective courses from (ii) above: 9 units | |
| Third Year of Attendance | 20 units |
| Elective courses from (ii) above: 20 units | |
| | Total: 60 units |

Notes: Applicable to students of *Biology Stream*

1. Students are not allowed to take BIOL3532, 3632, 3712, 4212, 4222, 4322, 4512 and 4712.
2. In general, students should complete courses at 2000 level before proceeding to courses at 3000 level, and so on. When selecting courses at 3000 and above level, students should pay attention to the prerequisite requirement.
3. Some elective courses in (ii)/(iii) above are offered in alternate years.

Human Biology Stream

Students are required to complete a minimum of 59 units of courses as follows:

- | | | |
|------|--|----------|
| (i) | Required Courses (Notes): BCHE2030#, BIOL2120, 2210, 2310, 3310, 3410, 4310, BMJC4411#/4421#, MEDN3050#/3051#, 3060#/3061#, 3070#/3071#, 3080#/3081#, 4550#, 4560#, LSCI2000#, 2002# and at least one laboratory course from BIOL2213, 2313, 3413 | 53 units |
| (ii) | Elective Courses: A combination of courses from the following: BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL4120, 4210, ENSC4250#, MBTE4033#, 4320#, STAT3210# | 6 units |

Total: 59 units

To be included in the Major GPA as well.

| Recommended course pattern | |
|--|-----------------|
| First Year of Attendance | 16 units |
| BCHE2030, BIOL2120, 2210, 2310, LSCI2000, 2002 and at least one laboratory course from BIOL2213, 2313, 3413* | |
| * offered in 1st term of 2nd year of study | |
| Second Year of Attendance | 19 units |
| BIOL3310, MEDN3050/3051, 3060/3061, 3070/3071, 3080/3081 | |
| Third Year of Attendance | 24 units |
| BIOL3410, 4310, BMJC4411/4421, MEDN4550, 4560 and two elective courses | |
| | Total: 59 units |

Notes: Applicable to students of *Human Biology Stream*

1. Students are not allowed to take BIOL3532, 3632, 3712, 4212, 4222, 4322, 4512 and 4712.
2. In general, students should complete courses at 2000 level before proceeding to courses at 3000 level, and so on. When selecting courses at 3000 and above level, students should pay attention to the prerequisite requirement.
3. Some elective courses in (ii) above are offered in alternate years.

Students with associate degrees

Students are required to complete a minimum of 55 units of courses as follows:

| | | |
|------|---|----------------------|
| (i) | Required Courses: | 26 units |
| (a) | Three courses from: BCHE2030#, BIOL2120, 2210, 2310 (9 units) | |
| (b) | One laboratory course from: BIOL2213, 2313, 3413 (1 unit) | |
| (c) | Five courses: BIOL3410, 3550 (or 3560/3670), 3610, 3620, LSCI2000# (12 units) | |
| (d) | Two laboratory courses: BIOL3012, 3022 (4 units) | |
| (ii) | Elective Courses: | 29 units |
| | A combination of courses with a minimum of one laboratory course from the following (including at least 20 units from BIOL-coded elective courses): BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL3000, 3310, 3530, 3630, 3710, 4010, 4012, 4120, 4210, 4220, 4310, 4320, 4430/4440 (or 4431/4451), 4510, 4710, CMBI4201#, 4202#, 4203#, ENSC4260#, FNCS4180#, 4181#, MBTE4033#, 4320#, 4510#, 4530#, STAT3210# | |
| | | <hr/> Total 55 units |
| # | To be included in the Major GPA as well. | |

Students with higher diplomas

Students are required to complete a minimum of 51 units of courses as follows:

| | | |
|------|---|----------------------|
| (i) | Required Courses: | 22 units |
| (a) | Two courses from: BCHE2030#, BIOL2120, 2210, 2310 (6 units) | |
| (b) | Five courses: BIOL3410, 3550 (or 3560/3670), 3610, 3620, LSCI2000# (12 units) | |
| (c) | Two laboratory courses from: BIOL3012, 3022 (4 units) | |
| (ii) | Elective Courses: | 29 units |
| | A combination of courses with a minimum of one laboratory course from the following (including at least 20 units from BIOL-coded elective courses): BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL3000, 3310, 3530, 3630, 3710, 4010, 4012, 4032, 4120, 4210, 4220, 4310, 4430/4440 (or 4431/4451), 4510, 4710, CMBI4201#, 4202#, 4203#, ENSC4260#, FNCS4180#, 4181#, MBTE4033#, 4320#, 4510#, 4530#, STAT3210# | |
| | | <hr/> Total 51 units |
| # | To be included in the Major GPA as well. | |

Human Biology Stream

Students with associate degrees

Students are required to complete a minimum of 57 units of courses as follows:

| | | |
|------|--|----------------------|
| (i) | Required Courses: | 48 units |
| (a) | Three courses from: BCHE2030#, BIOL2120, 2210, 2310 (9 units) | |
| (b) | One laboratory course from: BIOL2213, 2313, 3413 (1 unit) | |
| (c) | Sixteen courses: BIOL3310, 3410, 4310, BMJC4411#/4421#, MEDN3050#/3051#, 3060#/3061#, 3070#/3071#, 3080#/3081#, 4550#, 4560#, LSCI2000# (38 units) | |
| (ii) | Elective Courses: | 9 units |
| | A combination of courses from the following: BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL4120, 4210, ENSC4250#, MBTE4033#, 4320#, STAT3210# | |
| | | <hr/> Total 57 units |
| # | To be included in the Major GPA as well. | |

Students with higher diplomas

Students are required to complete a minimum of 53 units of courses as follows:

| | | |
|------|--|----------------------|
| (i) | Required Courses: | 44 units |
| (a) | Two courses from: BCHE2030#, BIOL2120, 2210, 2310 (6 units) | |
| (b) | Sixteen courses: BIOL3310, 3410, 4310, BMJC4411#/4421#, MEDN3050#/3051#, 3060#/3061#, 3070#/3071#, 3080#/3081#, 4550#, 4560#, LSCI2000# (38 units) | |
| (ii) | Elective Courses: | 9 units |
| | A combination of courses from the following: BCHE3080#, 4010#, 4040#, 4060#, 4130#, BIOL4120, 4210, ENSC4250#, MBTE4033#, 4320#, STAT3210# | |
| | | <hr/> Total 53 units |
| # | To be included in the Major GPA as well. | |

2. Minor Programme

Students are required to complete a minimum of 18 units of Biology courses which should include at least one course (3 units) from the following fundamental courses: BIOL2120, 2210, 2310.

Note: Courses which Biochemistry, Cell and Molecular Biology, Environmental Science, Food and Nutritional Sciences, and Molecular Biotechnology Majors take to fulfil their Major requirement cannot be used to fulfil the Minor Programme requirement.

Course List

| <i>Course Code</i> | <i>Course Title</i> | <i>Unit</i> |
|--------------------|--|-------------|
| Biology Stream | | |
| BIOL2120 | Cell Biology | 3 |
| BIOL2210 | Ecology | 3 |
| BIOL2213 | Ecology Laboratory | 1 |
| BIOL2310 | General and Molecular Genetics | 3 |
| BIOL2313 | Genetics Laboratory | 1 |
| BIOL3000 | Internship | 2 |
| BIOL3012 | Biodiversity Laboratory I | 2 |
| BIOL3022 | Biodiversity Laboratory II | 2 |
| BIOL3052 | Tech in Microbiology and Genetics | 2 |
| BIOL3310 | Human Biology | 3 |
| BIOL3410 | General Microbiology | 3 |
| BIOL3413 | Microbiology Laboratory | 1 |
| BIOL3530 | Plant Physiology | 3 |
| BIOL3550 | Plant Biology | 4 |
| BIOL3560 | Biology of Fungi and Non-Vascular Plants | 2 |
| BIOL3610 | Invertebrate Structure and Function | 2 |
| BIOL3620 | Vertebrate Life | 2 |
| BIOL3630 | Animal Physiology | 3 |
| BIOL3670 | Biology of Vascular Plants | 2 |
| BIOL3710 | Marine Biology | 3 |
| BIOL4010 | Evolutionary Biology | 3 |
| BIOL4012 | Field and Environmental Biology | 2 |
| BIOL4032 | Physiological Investigations | 2 |
| BIOL4120 | Developmental Biology | 3 |
| BIOL4210 | Environmental Pollution and Toxicology | 3 |
| BIOL4220 | Environmental Biotechnology | 3 |
| BIOL4310 | Human Genetics | 3 |
| BIOL4430 | Literature Senior Seminar I | 1 |
| BIOL4431 | Experimental Senior Seminar I | 3 |
| BIOL4440 | Literature Senior Seminar II | 2 |
| BIOL4451 | Experimental Senior Seminar II | 3 |
| BIOL4510 | Hong Kong Flora and Vegetation | 3 |
| BIOL4710 | Fish Biology and Mariculture | 3 |

Human Biology Stream

The Human Biology Stream is offered in cooperation with the School of Biomedical Sciences. Basically, the course requirement in the first half of this stream is identical with that of the regular Biology Stream. In the latter half, students will specialize in other courses described therein.

| | | |
|----------|---|---|
| BIOL2120 | Cell Biology | 3 |
| BIOL2210 | Ecology | 3 |
| BIOL2213 | Ecology Laboratory | 1 |
| BIOL2310 | General and Molecular Genetics | 3 |
| BIOL2313 | Genetics Laboratory | 1 |
| BIOL3310 | Human Biology | 3 |
| BIOL3410 | General Microbiology | 3 |
| BIOL3413 | Microbiology Laboratory | 1 |
| BIOL4120 | Developmental Biology | 3 |
| BIOL4210 | Environmental Pollution and Toxicology | 3 |
| BIOL4310 | Human Genetics | 3 |
| MEDN3050 | Anatomy I | 3 |
| MEDN3060 | Anatomy II | 3 |
| MEDN3051 | Anatomy Laboratory I | 1 |
| MEDN3061 | Anatomy Laboratory II | 1 |
| MEDN3070 | Basic Principles of Physiology | 3 |
| MEDN3071 | Basic Principles of Physiology Laboratory | 1 |
| MEDN3080 | Physiology of Major Organ Systems in Man | 3 |
| MEDN3081 | Physiology of Major Organ Systems in Man | 1 |
| MEDN4550 | Specialized Topics in Anatomy | 3 |
| MEDN4560 | Specialized Topics in Physiology | 3 |
| BMJC4411 | Research Project I | 3 |
| BMJC4421 | Research Project II | 3 |