

# COURSE PLANNER

## Bachelor of Science (Biotechnology)

### BA-SCIBIO3

Semester 1 | 2023

#### Recommended Sequence

Units are listed on your Course Planner in a recommended sequence. However, this can be amended depending on unit availability, unit progression, timetabling and the semester in which you commenced your course.

## Year One

| Semester 1   Feb/Mar 2023  |  |   |
|----------------------------|--|---|
| Unit Code                  | Unit Name  | Pre-requisites                                  |
| BIO10001                   | Concepts of Biology  | Nil   |
| CHE10001                   | Chemistry 1  | VCE 3 and 4 Chemistry or equivalent             |
| PHY10001                   | Energy and Motion  | Nil   |
| STA10003                   | Foundation of Statistics   | Nil   |
| MPU3193                    | Philosophy and Current Issues<br>(Malaysian and International Students)                              | Nil   |
| Winter Term   June 2023    |  |   |
| MPU3212                    | Bahasa Kebangsaan A<br>(Malaysian students who do not have SPM Bahasa Melayu credit)                 | Nil   |
| Elective<br>Optional       | PEH20005 or other elective   | Please refer to Elective List                   |
| Elective<br>Optional       | BUS30025, INB20009 or other elective<br>(Subject to unit availability)                               | Please refer to Elective List                   |
| Semester 2   Aug/Sept 2023 |  |   |
| NPS10003                   | Sustainability Challenges in Science   | Nil   |
| MTH10010                   | Essential Mathematics  | MTH00007 or MTH00004 or VCE Maths or equivalent |
| BIO10003                   | Concepts of Biotechnology  | Nil   |
| Elective                   | CHE10005*, PEH20004*, PEH20006*, COS10009, COS10022, MGT10001, MKT10007, COM10007, or other elective | Please refer to Elective List                   |
| MPU3183                    | Penghayatan Etika dan Peradaban<br>(Malaysian Students Only)   | Nil   |
| MPU3143                    | Malay Language Communication 2<br>(International Students Only)                                      | Nil   |
| Summer Term   January 2024 |  |   |
| Elective<br>Optional       | ECO10005, MKT10009 or other elective<br>(Subject to unit availability)                               | Nil   |
| Elective<br>Optional       | ECO10005, MKT10009 or other elective<br>(Subject to unit availability)                               | Nil   |

## Year Two

| Semester 3   Feb/Mar 2024  |   |   |
|----------------------------|---|---|
| Unit Code                  | Unit Name   | Pre-requisites  |
| BCH20002                   | Introduction to Biochemistry  | BIO10001 and CHE10001   |
| BIO20002                   | The Microbial World   | BIO10001  |
| Elective                   | BIO20006, PEH20002*, ENV30003*, COS10009, COS10022, COS20083, ACC10007, INF10024 or other elective  | Please refer to Elective List   |
| Elective                   | BIO20006, PEH20002*, ENV30003*, COS10009, COS10022, COS20083, ACC10007, INF10024 or other elective  | Please refer to Elective List   |
| Winter Term   June 2024    |   |   |
| NPS20008                   | - Completing WIL as an exemption to 2 electives<br>or other electives - Students need to complete at least 12 units to enrol<br>Optional - WIL placement can be taken in Year Three |   |
| Semester 4   Aug/Sept 2024 |   |   |
| NPS20011                   | Societal Challenges in Science  | NPS10001 Introduction to e-Science or NPS10003 Sustainability Challenges in Science |
| BCH20001                   | Biochemistry of Genes and Proteins  | CHE10001 or CEE20005 and BCH20002   |
| BIO30005                   | Microbes in the Environment   | BIO10001  |
| Elective                   | BIO20008, CHE10005*, PEH20004*, PEH20006*, COS10009, COS10022, MGT10009, MKT10009, COM10007, or other elective  | Please refer to Elective List   |
| Summer Term   January 2025 |   |   |
| NPS20008                   | - Completing WIL as an exemption to 2 electives<br>or other elective - Students need to complete at least 12 units to enrol<br>Optional - WIL placement can be taken in Year Three  |   |

## Year Three

| Semester 5   Feb/Mar 2025  |   |                               |
|--|---|-------------------------------|
| Unit Code  | Unit Name   | Pre-requisites                |
| BCH30003   | Advanced Biochemistry   | BCH20002 and BCH20001         |
| BIO30009   | Applications of Bioinformatics  | BCH20002 and BCH20001         |
| Elective   | BIO30010, ENV30001*, BIO20006, PEH20002*, ENV30003*, COS10009, COS10022, COS20083, ACC10007, INF10024 or other elective   | Please refer to Elective List |
| Elective   | BIO30010, ENV30001*, BIO20006, PEH20002*, ENV30003*, COS10009, COS10022, COS20083, ACC10007, INF10024 or other elective   | Please refer to Elective List |
| <b>Remarks: Student can complete 24 units of study at the end of Semester 5 if completed any 4 units from Winter Terms and Summer Terms.</b> |   |                               |
| Winter Term   June 2025  |   |                               |
| NPS20008   | - Completing WIL as an exemption to 2 electives<br>or other electives - Students need to complete at least 12 units to enrol<br>Optional - WIL placement can be taken in Year Three |                               |
| Semester 6 Aug/Sept 2025   |   |                               |
| NPS30004   | Grand Challenges in Science   | 200 credit points of study    |
| BIO30004   | Molecular Biotechnology   | BCH20002 and BCH20001         |
| Elective   | BIO20008, CHE10005*, PEH20004*, PEH20006*, COS10009, COS10022, COS30045, MGT10009, MKT10009, COM10007, or other elective  | Please refer to Elective List |
| Elective   | BIO20008, CHE10005*, PEH20004*, PEH20006*, COS10009, COS10022, COS30045, MGT10009, MKT10009, COM10007, or other elective  | Please refer to Elective List |

#### Notes

To complete your study planner, please select either (as seen on Page 2 of this study planner):

1. One Second-Major (8 units) OR
2. 8 electives

#### How to use your Course Planner

Refer to the below table to help explain what units are required each semester throughout your course. The units in your planner are colour coded to assist you with mapping out your studies.

#### Course Information

Each unit is equivalent to 12.5 credit points.

To qualify for the award of this course, students must complete 24 units (300 credit points) comprising of:

#### 8 Core Units 100 credit points

A set of compulsory units you MUST complete as part of your Course.

#### 8 Major Units 100 credit points

A structured set of compulsory units in a field of study specific to your Course.

#### 8 Second Major/Elective Units 100 credit points

A Second Major or a combination of Elective units.

A Second Major is a set of 8 units from the selected study area.

An Elective is a standalone unit from any study area.

#### General Studies/Mata Pelajaran Umum 0 credit points

Compulsory units to complete as a pre-requisite to graduate (see statement below)

Advisable to enrol in Year One

Email [ltu@swinburne.edu.my](mailto:ltu@swinburne.edu.my) for queries

#### Work-Integrated Learning Placement

(3 month) – Offer in Winter/Summer Term  
25 credit points

An option for students and completing WIL placement is equivalent to two elective units exemption.

Students need to complete at least 12 units if they want to enrol in WIL placement

WIL placement can be taken in Year Three

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All commencing students of Master, Degree, Diploma and Foundation programs will be automatically registered for the **Academic Integrity Training Module** in the first semester (Note: Students articulating from Foundation Studies are expected to undertake this unit as a refresher).

There are 4 topics in this online module that are recommended for completion during Week 1-4 of your commencing study period. At the end of this module, students are required to complete a quiz comprised of 10 questions and achieve a score of at least 90%.

Ministry of Education requires that all NEW Cohorts pursuing Degree program (International and Malaysian) students must take the MPU units as a prerequisite for the award of their degree.

- Malaysian students: Must take and pass the units as a prerequisite for the award of their degree.
- International students: Must take and pass the units as a prerequisite for the award of their degree

# COURSE PLANNER

## Second-Major Listing - ENVIRONMENTAL SCIENCE

### Units offered in Feb/Mar\*

| Unit Code | Unit Name                | Pre-requisites   |
|-----------|--------------------------|--|
| PEH20002  | Food Science             | CHE10001 or CEE20005 or equivalent   |
| ENV30003  | Environmental Management | 100 credit points of study   |
| ENV30001  | Environmental Biology    | CHE10001 or CEE20005 and BIO10001, and any of these:<br>CHE10002, BIO20002, BCH20002 |

### Units offered in Aug/Sep\*

| Unit Code | Unit Name                         | Pre-requisites                     |
|-----------|-----------------------------------|------------------------------------|
| CHE10005  | Consumer Chemistry                | CHE10001 or CEE20005 or equivalent |
| PEH20004  | Built and Sustainable Communities | Nil                                |
| PEH20006  | Water Science                     | CHE10001 or CEE20005 or equivalent |

And any TWO units of the following:

### Units offered in Feb/Mar

| Unit Code | Unit Name               | Pre-requisites                |
|-----------|-------------------------|-------------------------------|
| BIO20006  | Industrial Microbiology | BIO20002 (or as Co-Requisite) |
| BIO30010  | Natural Products        | 150 credit points of study    |

### Units offered in Aug/Sep

| Unit Code | Unit Name                        | Pre-requisites              |
|-----------|----------------------------------|-----------------------------|
| BIO20008  | Introduction to Tropical Ecology | 87.5 credit points of study |

### Units offered in Winter Term

| Unit Code | Unit Name                    | Pre-requisites |
|-----------|------------------------------|----------------|
| PEH20005  | Communicable Disease Control | Nil            |

## Elective Unit Listing (Full List)

### Units offered in Feb/Mar

| Unit Code | Unit Name                                 | Pre-requisites   |
|-----------|---|--|
| BIO20006  | Industrial Microbiology                   | BIO10001   |
| BIO30010  | Natural Products                          | 150 credit points of study   |
| PEH20002  | Food Science                              | CHE10001 or CEE20005 or equivalent   |
| ENV30003  | Environmental Management                  | 100 credit points of study   |
| ENV30001  | Environmental Biology                     | CHE10001 or CEE20005 and BIO10001, and any of these:<br>CHE10002, BIO20002, BCH20002 |
| COS10009  | Introduction to Programming               | Nil  |
| COS10022  | Introduction to Data Science              | Nil  |
| COS20083  | Advanced Data Analytics                   | COS10009 and COS10022  |
| ACC10007  | Financial Information for Decision Making | Nil  |
| INF10024  | Business Digitalisation                   | Nil  |

### Unit offered in Winter Term (if available)

| Unit Code | Unit Name                       | Pre-requisites |
|-----------|---------------------------------|----------------|
| PEH20005  | Communicable Disease Control    | Nil            |
| BUS30025  | Social Innovation Project       | Nil            |
| INB20009  | Global and Digital Marketplaces | Nil            |

### Units offered in Aug/Sep

| Unit Code | Unit Name                             | Pre-requisites                     |
|-----------|---------------------------------------|------------------------------------|
| BIO20008  | Introduction to Tropical Ecology      | 87.5 credit points of study        |
| CHE10005  | Consumer Chemistry                    | CHE10001 or CEE20005 or equivalent |
| PEH20004  | Built and Sustainable Communities     | Nil                                |
| PEH20006  | Water Science                         | CHE10001 or CEE20005 or equivalent |
| COS10009  | Introduction to Programming           | Nil                                |
| COS10022  | Introduction to Data Science          | Nil                                |
| COS30045  | Data Visualisation                    | COS10009                           |
| MGT10009  | Contemporary Management Principles    | Nil                                |
| MKT10009  | Marketing and the Consumer Experience | Nil                                |
| COM10007  | Professional Communication Practice   | Nil                                |

### Units offered in Summer Term (if available)

|          |  |     |
|----------|--|-----|
| ECO10005 | Economics for Business Decision Making | Nil |
| MKT10009 | Marketing and the Consumer Experience  | Nil |

## Work Integrated Learning Placement

NPS20008: Work Integrated Learning Placement – Science

\* An option for students and completing WIL placement is equivalent to two elective units exemption.

\* Students need to complete at least 12 units if they want to enrol in WIL placement

\* WIL placement can be taken in Year Three