

# COURSE PLANNER

## Bachelor of Science (Biotechnology)

### BA-SCIBIO3

Semester 1 | 2025

#### 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 2025		
Unit Code	Unit Name	Pre-requisites
CHE10001	Chemistry 1	VCE 3 and 4 Chemistry or equivalent
PHY10001	Energy and Motion	Nil
STA10003	Foundation of Statistics	Nil
BIO10001	Concepts of Biology	Nil
MPU3273	Integrity and Anti-Corruption (Malaysian and International Students)	Nil
Winter Term   June 2025		
MPU3212	Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit)	Nil
Elective Optional	BUS30025, INB20009 or other elective (Subject to unit availability)	Please refer to Elective List
Elective Optional	BUS30025, INB20009 or other elective (Subject to unit availability)	Please refer to Elective List
Semester 2   Aug/Sept 2025		
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
MPU3193	Philosophy and Current Issues (Malaysian and International Students)	Nil
Summer Term   January 2026		
Elective Optional	ECO10005, MKT10009 or other elective (Subject to unit availability)	Nil
Elective Optional	ECO10005, MKT10009 or other elective (Subject to unit availability)	Nil

## Year Two

Semester 3   Feb/Mar 2026		
Unit Code	Unit Name	Pre-requisites
BCH20002	Introduction to Biochemistry	BIO10001 and CHE10001
BIO20002	The Microbial World	BIO10001
PEH20002	Food Science	Please refer to Elective List
BIO20006	Industrial Microbiology (Optional, 2025 only)	Please refer to Elective List
Elective	ENV30003, ENV30001, SOC10005, COS10009, COS10022, COS2008, ACC10007, INF10024, or other elective	Please refer to Elective List
MPU3183	Penghayatan Etika dan Peradaban (Malaysian Students Only)	Nil
MPU3143	Malay Language Communication 2 (International Students Only)	Nil
Winter Term   June 2026		
NPS20008	- Completing WIL as an exemption to 2 electives or other electives - Students need to complete at least 12 units to enrol Optional - WIL placement can be taken in Year Three	
Semester 4   Aug/Sept 2026		
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	CHE10005, PEH20004, PEH20006, COS10009, COS10022, MGT10001, MKT10007, COM10007, or other elective	Please refer to Elective List
Summer Term   January 2027		
NPS20008	- Completing WIL as an exemption to 2 electives or other elective - Students need to complete at least 12 units to enrol Optional - WIL placement can be taken in Year Three	

## Year Three

Semester 5   Feb/Mar 2027		
Unit Code	Unit Name	Pre-requisites
NPS30004	Grand Challenges in Science	200 credit points of study
BCH30003	Advanced Biochemistry	BCH20002 and BCH20001
BIO30009	Applications of Bioinformatics	BCH20002 and BCH20001
Elective	BIO30010 Natural Products (Optional)	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 2027		
NPS20008	- Completing WIL as an exemption to 2 electives or other electives - Students need to complete at least 12 units to enrol Optional - WIL placement can be taken in Year Three	
Semester 6 Aug/Sept 2027		
BIO30004	Molecular Biotechnology	BCH20002 and BCH20001
BIO20008	Introduction to Tropical Ecology (Recommended, 2026 only)	Please refer to Elective List
Elective	CHE10005, PEH20004, PEH20006, COS10009, COS10022, COS30045, MGT10009, MKT10009, COM10007, or other elective	Please refer to Elective List
Elective	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):

- One Second-Major (8 units) OR
- 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

## Elective Unit Listing (Full List)

### Units offered in Feb/Mar

Unit Code	Unit Name	Pre-requisites
BIO20006	Industrial Microbiology (2025 only)	BIO10001 and BIO20002 (pre or co-requisite)
BIO30010	Natural Products	150 credit points
PEH20002	Food Science ( <i>Recommended</i> )	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: CHE10002, BIO20002, BCH20002
SOC10005	Environment and Society: Problems and Solutions ( <i>New, 2025 only</i> )	Nil
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
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 (2026 only)	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
MDA10006	Innovation Cultures: Perspectives on Science and Technology	Nil

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

Unit Code	Unit Name	Pre-requisites
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