

COURSE PLANNER

Bachelor of Science (Biotechnology)

BA-SCIBIO3

Semester 2 | 2026

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   Aug/Sept 2026 |                                                                                              |                                                 |
|----------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------|
| Unit Code                  | Unit Name                                                                                    | Pre-requisites                                  |
| BIO10001                   | Concepts of Biology                                                                          | Nil                                             |
| CHE10001                   | Chemistry 1                                                                                  | VCE 3 and 4 Chemistry or equivalent             |
| NPS10003                   | Sustainability Challenges in Science                                                         | Nil                                             |
| MTH10010                   | Essential Mathematics                                                                        | MTH00007 or MTH00004 or VCE Maths or equivalent |
| MPU3312                    | Academic Integrity and Professional Conduct<br><i>(Malaysian and International Students)</i> | Nil                                             |

| Summer Term   January 2027 (Optional) |                                                                                             |                |
|---------------------------------------|---------------------------------------------------------------------------------------------|----------------|
| Unit Code                             | Unit Name                                                                                   | Pre-requisites |
| MPU3212                               | Bahasa Kebangsaan A<br><i>(Malaysian students who do not have SPM Bahasa Melayu credit)</i> | Nil            |

| Semester 2   Feb/Mar 2027 |                                                                        |                       |
|---------------------------|------------------------------------------------------------------------|-----------------------|
| Unit Code                 | Unit Name                                                              | Pre-requisites        |
| PHY10001                  | Energy and Motion                                                      | Nil                   |
| STA10003                  | Foundation of Statistics                                               | Nil                   |
| BCH20002                  | Introduction to Biochemistry                                           | BIO10001 and CHE10001 |
|                           | <b>Any 1 Elective unit below:</b>                                      |                       |
| SOC10005                  | Environment and Society: Problems and Solutions                        | Nil                   |
| BIO20006                  | Industrial Microbiology                                                | BIO10001              |
| MPU3172 [OR]              | Aspirasi Negara Bangsa - BM<br><i>(Malaysian Students only)</i>        | Nil                   |
| MPU3142                   | Malay Language Communication 2<br><i>(International Students only)</i> |                       |

Year Two

| Semester 3   Aug/Sept 2027 |                                                                     |                                    |
|----------------------------|---------------------------------------------------------------------|------------------------------------|
| Unit Code                  | Unit Name                                                           | Pre-requisites                     |
| NPS20011                   | Societal Challenges in Science                                      | NPS10003                           |
| BIO10003                   | Concepts of Biotechnology                                           | Nil                                |
| BCH20001                   | Biochemistry of Genes and Proteins                                  | CHE10001 or CEE20005 and BCH20002  |
|                            | <b>Any 1 Elective unit below:</b>                                   |                                    |
| CHE10005                   | Consumer Chemistry and Environmental Impact                         | CHE10001 or CEE20005 or equivalent |
| PEH20004                   | Built and Sustainable Communities                                   | Nil                                |
| MPU3222                    | Career Development<br><i>(Malaysian and International Students)</i> | Nil                                |

| Semester 4   Feb/Mar 2028 |                                                                                         |                                    |
|---------------------------|-----------------------------------------------------------------------------------------|------------------------------------|
| Unit Code                 | Unit Name                                                                               | Pre-requisites                     |
| BIO20002                  | The Microbial World                                                                     | BIO10001                           |
| BCH30003                  | Advanced Biochemistry                                                                   | BCH20002 and BCH20001              |
| BIO30009                  | Applications of Bioinformatics                                                          | BCH20002 and BCH20001              |
|                           | <b>Any 1 Elective unit below:</b>                                                       |                                    |
| PEH20002                  | Food Science                                                                            | CHE10001 or CEE20005 or equivalent |
| ENV30003                  | Environmental Management                                                                | 100 credit points                  |
| ENV30001                  | Environmental Biology                                                                   | BIO20002 or BCH20002               |
| MPU3112                   | Kursus Integriti dan Antirasuah (KIAR)<br><i>(Malaysian and International Students)</i> | Nil                                |

| Winter Term   June 2028 |                                                                          |                   |
|-------------------------|--------------------------------------------------------------------------|-------------------|
| Unit Code               | Unit Name                                                                | Pre-requisites    |
| NPS20012                | Work Integrated Learning Placement and Professional Experience – Science | 150 credit points |

Year Three

| Semester 5   Aug/Sept 2028 |                                                                      |                                    |
|----------------------------|----------------------------------------------------------------------|------------------------------------|
| Unit Code                  | Unit Name                                                            | Pre-requisites                     |
| BIO30004                   | Molecular Biotechnology                                              | BCH20002 and BCH20001              |
| BIO30005                   | Microbes in the Environment                                          | BIO10001                           |
|                            | <b>Any 2 Elective units below:</b>                                   |                                    |
| PEH20006                   | Water Science                                                        | CHE10001 or CEE20005 or equivalent |
| CHE10005                   | Consumer Chemistry and Environmental Impact                          | CHE10001 or CEE20005 or equivalent |
| BIO20008                   | Introduction to Tropical Ecology                                     | 87.5 Credit Points of Study        |
| MPU3122 [OR]               | Falsafah dan Cabaran Semasa – BM<br><i>(Malaysian Students only)</i> | Nil                                |
| MPU3152                    | Citra Malaysia<br><i>(International Students only)</i>               | Nil                                |

| Summer Term   January 2029 (If NPS20012 not completed in Winter Term 2028) |                                                                          |                   |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------|
| Unit Code                                                                  | Unit Name                                                                | Pre-requisites    |
| NPS20012                                                                   | Work Integrated Learning Placement and Professional Experience – Science | 150 credit points |

| Semester 6   Feb/Mar 2029 |                                                                   |                                                         |
|---------------------------|-------------------------------------------------------------------|---------------------------------------------------------|
| Unit Code                 | Unit Name                                                         | Pre-requisites                                          |
| NPS30004                  | Grand Challenges in Science                                       | 225 credit points in BA-SCIBIO3 or BA-ENV2 and NPS20011 |
|                           | <b>Any 1 Elective unit below:</b>                                 |                                                         |
| ENV30001                  | Environmental Biology                                             | BIO20002 or BCH20002                                    |
| ECO10005                  | Economics for Business Decision                                   | Nil                                                     |
| MKT10009                  | Marketing and the Consumer Experience                             | Nil                                                     |
| MPU3412                   | Service Learning<br><i>(Malaysian and International Students)</i> | Nil                                                     |

Notes

Contact your Head of Department to update your Study Planner if you have unit exemptions, or failed units.



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 Elective Units

100 credit points

An Elective is a standalone unit from any study area or a combination of for a Minor package.

Choose any 8 from the suggested elective units (includes compulsory NPS20012). Please check the pre-requisite requirements. You can also enrol in non-science elective units listed here:  
<https://www.swinburne.edu.my/courses/bachelor-science-environmental-science/>

Compulsory Elective unit:

NPS20012 Work-Integrated Learning Placement - Offer in Winter/Summer Term

- 2 Elective Units (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 (including current semester) if they want to enrol in WIL placement
- WIL placement can be taken in Year Three
- Email [wil-pu@swinburne.edu.my](mailto:wil-pu@swinburne.edu.my) for queries

General Studies/Mata Pelajaran Umum

0 credit points

Compulsory units to complete as a pre-requisite to graduate (see statement below)  
It is advisable to enrol starting from the first semester of Year One.  
Email [tu@swinburne.edu.my](mailto:tu@swinburne.edu.my) for queries

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