

# BIOS 1040 NATURAL SCIENCE (WSTC)

**Credit Points** 10

**Coordinator** Janice Petherick ([https://directory.westernsydney.edu.au/search/name/Janice Petherick/](https://directory.westernsydney.edu.au/search/name/Janice%20Petherick/))

**Description** This subject delves into the rich tapestry of biodiversity, uncovering the myriad of living organisms that inhabit our planet and their intricate roles within ecosystems. In this subject, you will explore and classify biodiversity and the mechanisms through which organisms grow, reproduce, and utilise resources. You will learn about the process of evolution and how evolution has given rise to the diversity of organisms in the biosphere. You will also observe the natural interactions between living organisms and Earth's ecosystems, recognising that these very interactions have been pivotal in driving evolutionary changes. As you progress, you will gain insights into the importance of sustainable engagement with biodiversity, upon which the future of human survival depends.

**School** Science

**Discipline** Ecology and Evolution

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 1 subject

**Restrictions**

Students must be enrolled in an existing Destination College Diploma program listed below:

- 7188 Diploma in Culture, Society and Justice
- 7189 Diploma in Health Science
- 7190 Diploma in Business
- 7191 Diploma in Information and Communication Technologies
- 7192 Diploma in Building Design and Construction
- 7193 Diploma in Engineering Studies
- 7194 Diploma in Creative Industries and Communications
- 7195 Diploma in Arts
- 7196 Diploma in Science
- 7197 Diploma in Education Studies

## Learning Outcomes

After successful completion of this subject, students will be able to:

1. Identify and describe the characteristics of major biological groups and demonstrate their application in classifying unknown organisms.
2. Explain how evolution gives rise to biodiversity through the process of selection.
3. Explain the functional adaptations of organisms to different environments.
4. Apply your understanding of biodiversity to identify and classify organisms in the natural environment.
5. Demonstrate an understanding of how sustainable practices maintain biodiversity in different ecosystems.

6. Effectively communicate scientific findings and concepts, tailored to both professional and non-professional audiences, employing appropriate terminology.

## Subject Content

- the characteristics of living things and the nature of biodiversity
- the major groups of living things from bacteria, viruses, protists and fungi to plants and animals
- classification, taxonomy and species
- sorting, organising and classifying organism
- evolutionary theory
- evolutionary development of structure and function
- the role of living organisms in ecosystems
- threats to biodiversity
- basic laboratory skills for observing plants, animals, fungi, and microbes.

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Interview	30 minutes	30	N	Group	N
Professional Task	6 x 2 hour practicals including report	40	N	Individual	N
Presentation	5-7 minutes	30	N	Individual	N

Teaching Periods

## Autumn Block 3 (2025)

### Campbelltown

#### On-site

**Subject Contact** Janice Petherick ([https://directory.westernsydney.edu.au/search/name/Janice Petherick/](https://directory.westernsydney.edu.au/search/name/Janice%20Petherick/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=BIOS1040\\_25-AB3\\_CA\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BIOS1040_25-AB3_CA_1#subjects))

## Spring Block 3 (2025)

### Campbelltown

#### On-site

**Subject Contact** Janice Petherick ([https://directory.westernsydney.edu.au/search/name/Janice Petherick/](https://directory.westernsydney.edu.au/search/name/Janice%20Petherick/))

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