

# Science study guide

Course options and career opportunities

swinburne.edu.au/science

# Where will science take you?

When you study science at Swinburne, you embark on a journey of discovery.

You'll experience practical learning and conduct research in world-class labs. You'll study in a university setting that has strong connections with industry and regularly collaborates with esteemed researchers.

Science equips you with excellent problem-solving skills so you can help make better sense of the world. And it takes you in many exciting career directions.

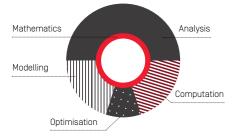
#### I want to learn

How to use mathematics to model our world

#### Study

Applied mathematics

#### To learn about



#### I want to learn

Study

Physics

To learn about

Mathematics

Physics

About matter and how the universe works

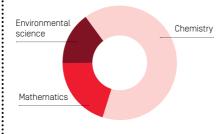
## I want to learn

About how molecules react and can be manipulated

## Study

Chemistry

#### To learn about



#### With a degree

Bachelor of Science (Professional) with a major in applied mathematics

#### **Bachelor of Science**

with a major in applied mathematics

Pathway to a degree:

To become

Diploma of Science (UniLink)

· Mathematical researcher

· Biological and climate modeller

Quantitative analyst

 Financial analyst Actuary

#### With a degree

#### **Bachelor of Science (Professional)**

with a major in physics

## Bachelor of Science

with a major in physics

Pathway to a degree:

Diploma of Science (UniLink)

- Research and development physicist
- · Financial modeller and forecaster
- · Medical physicist
- · Meteorologist and climate modeller
- Astrophysicist
- · Data analyst

#### With a degree

Astronomy

strophysics

#### **Bachelor of Science (Professional)**

with a major in chemistry

#### **Bachelor of Science**

with a major in chemistry

Pathway to a degree:

#### Diploma of Science (UniLink)

- · Chemical researcher
- Analytical forensic scientist
- Agricultural or environmental scientist
- Diagnostic laboratory scientist
- · Food or beverage production technician
- · Pharmaceutical scientist

#### Or a diploma or certificate

Diploma of Laboratory Technology (MSL501180) Certificate IV in Laboratory Techniques (MSL40118) Certificate IV in Science (22442VIC)

#### To become

- · Laboratory technician
- · Technical officer

#### I want to learn

About how molecules make your body work

About cells and how to change them

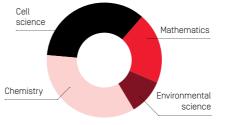
#### I want to learn

About water and agriculture, and how to manage them

#### Study

Biochemistry

#### To learn about

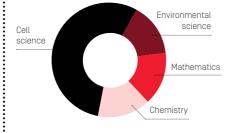


## Study

Biotechnology

I want to learn

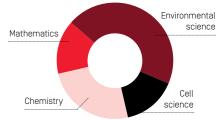
#### To learn about



#### Study

Environmental science

#### To learn about



#### With a degree

## Bachelor of Science (Professional)

with a major in biochemistry

## **Bachelor of Science**

with a major in biochemistry

Pathway to a degree:

Diploma of Science (UniLink)

## To become

- · Biochemical researcher
- · Clinical biochemist
- · Agricultural or environmental scientist
- Forensic scientist
- Food or beverage production technician

Or a diploma or certificate

Diploma of Laboratory

Technology (MSL50118)

Certificate IV in Laboratory

Certificate IV in Science (22442VIC)

Techniques (MSL40118P)

· Laboratory technician

· Technical officer

Pathologist

To become

With a degree

#### Bachelor of Science (Professional) with a major in biotechnology

## **Bachelor of Science**

With a major in biotechnology

Pathway to a degree:

Diploma of Science (UniLink)

- Biotechnology researcher Clinical biochemist
- Agricultural or environmental scientist
- Diagnostic laboratory scientist
- Food or beverage production technician
- Pharmaceutical scientist

#### Or a diploma or certificate

Diploma of Laboratory Technology (MSL50118) Certificate IV in Laboratory Techniques (MSL40118) Certificate IV in Science (22442VIC)

With a degree

with a major in environmental science

Bachelor of Science (Professional)

with a major in environmental science

Pathway to a degree:

**Bachelor of Science** 

Diploma of Science (UniLink)

- Environmental scientist or consultant
- Sustainability analyst
- Water quality expert
- · Plant and animal breeder

#### To become

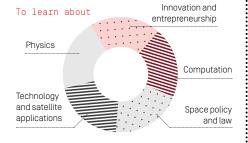
- · Laboratory technician
- Technical officer

#### I want to learn

About space science and technology and how space operations are managed

#### Study

#### Space technology



#### With a degree

#### **Bachelor of Science (Professional)**

with a co-major in space technology

#### **Bachelor of Science**

with a co-major in space technology

#### To become

- Mission designer
- Space engineer
- · Space research scientist
- Satellite technician
- Space administrator

The information provided here was correct at the time of printing (November 2021). For the most up-to-date information, please visit swinburne.edu.au CRICOS 00111D RTO 3059 FSET0003\_202111

## Your next gen\_now upgrades

#### Guaranteed real industry experience

At Swinburne, your education is more than reading; with our Work Integrated Learning program, it's doing. Start building your résumé with placements, internships and industry-linked projects while you study. You'll be able to apply your learning in all of our Science Bachelor degrees with three industry project units; that's one every year. Guaranteed.

Visit swinburne.edu.au/workintegratedlearning

## Professional Degrees

More than a standard bachelor degree, a Professional Degree is a premium university experience you'll graduate from having completed a 12-month full-time work placement. Not only will you apply your knowledge in the workplace, you'll be paid award rates and receive academic credit.

## Double degrees

Double degrees are a great way to broaden your study experience and are highly respected by employers. They combine two areas of study and on completion you'll be awarded two degrees.

A double degree is generally only one year longer than a single degree.

Consider combining your science degree with a degree in another study area by studying:

- · Bachelor of Arts/Bachelor of Science
- · Bachelor of Engineering (Honours)/Bachelor of Science
- · Bachelor of Health Science/Bachelor of Science
- · Bachelor of Laws/Bachelor of Science

## Pathways to a degree

#### UniLink diplomas

UniLink diplomas are equivalent to eight units of study (typically one year of full-time study) and can provide a pathway to the second year of a related bachelor degree.

These courses are an option for students who miss direct entry to a degree or who would benefit from a more supportive style of learning.

#### Vocational education

Diplomas and certificates are vocational qualifications that provide practical teaching and skills for work. A vocational qualification could prepare you for your first job, help you retrain or be the first step in a career change.

Successful completion of a vocational qualification may also allow you to progress to another qualification with advanced standing.

## **Scholarships**

The Vice-Chancellor's Excellence Scholarship is awarded to students in recognition of academic excellence. Recipients will receive \$5000 per annum for the normal duration of their chosen degree, plus a one-off payment of \$2000 towards an international study experience.

Swinburne also offers scholarships to students from indigenous backgrounds, students suffering from financial hardship and students who have relocated from regional areas to study. For a full list of scholarships, including value and eligibility criteria, visit **swinburne.edu.au/scholarships**