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

I want to learn
About matter and how the universe works

I want to learn
About how molecules react and can be manipulated

Study
Applied mathematics

To learn about
Mathematics
Modelling
Optimisation

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:
Diploma of Science (UniLink)

To become
• Mathematical researcher
• Quantitative analyst
• Financial analyst
• Actuary
• Biological and climate modeller

I want to learn
About how molecules make your body work

I want to learn
About cells and how to change them

I want to learn
About water and agriculture, and how to manage them

Study
Physics

To learn about
Mathematics
Modelling

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)

To become
• Research and development physicist
• Financial modeler and forecaster
• Medical physicist
• Meteorologist and climate modeller
• Astrophysicist
• Data analyst

Study
Chemistry

To learn about
Mathematics
Molecular structure

With a degree
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)

To become
• Chemical researcher
• Analytical forensic scientist
• Agricultural or environmental scientist
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pharmaceutical scientist

Study
Biochemistry

To learn about
Mathematics
Cell biology

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
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pathologist

Study
Biotechnology

To learn about
Mathematics
Cell biology

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)

To become
• Biotechnology researcher
• Clinical biochemist
• Agricultural or environmental scientist
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pharmaceutical scientist

Study
Environmental science

To learn about
Mathematics
Cell biology

With a degree
Bachelor of Science (Professional) with a major in environmental science
Bachelor of Science with a major in environmental science

Pathway to a degree:
Diploma of Science (UniLink)

To become
• Environmental scientist or consultant
• Sustainability analyst
• Water quality expert
• Plant and animal breeder

Or a diploma or certificate
Diploma of Laboratory Technology (MSL50118)
Certificate IV in Laboratory Techniques (MSL40118)
Certificate IV in Science (22442VIC)

To become
• Laboratory technician
• Technical officer

Or a diploma or certificate
Diploma of Laboratory Technology (MSL50118)
Certificate IV in Laboratory Techniques (MSL40118)
Certificate IV in Science (22442VIC)

To become
• Laboratory technician
• Technical officer
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