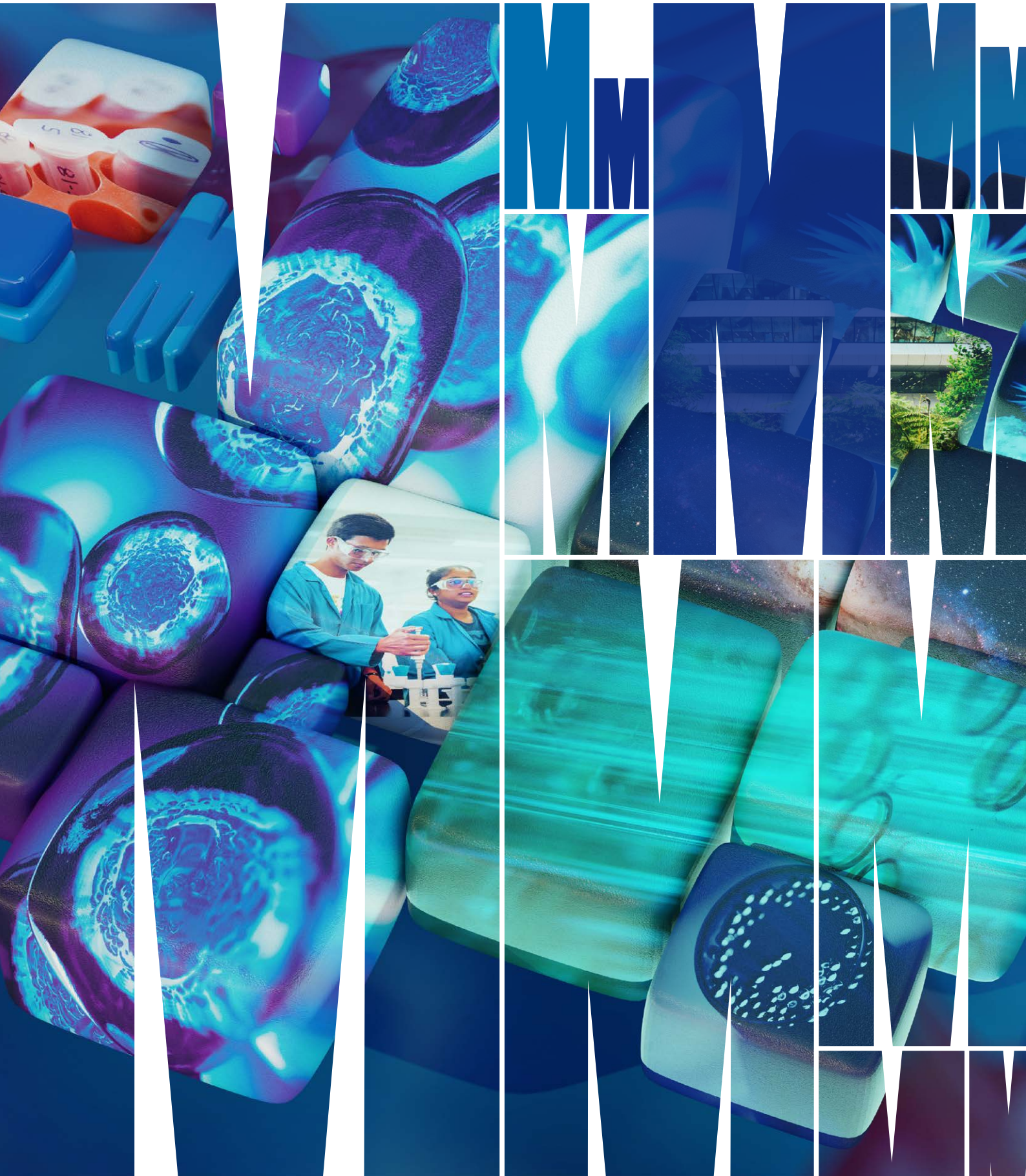
MONASH University

SCIENCE

UNDERGRADUATE COURSE GUIDE
2026



WELCOME TO MONASH SCIENCE

As a society we continue to face a wide range of complex challenges – environmental pressure, climate change, booming population and an ever-changing technological, economic and social landscape.

At Monash Science, we believe in making a difference to the world by using our science training and knowledge to influence our future. Science is about learning how to analyse problems and solve them.

Our future depends on bright minds, innovators and collaborators who can create solutions that will change the world. With a science degree from Monash University, the possibilities to be a driver of change are endless.

You could find yourself on one of our many exciting field trips gaining hands-on learning experiences or influencing international policy on environmental issues.

Or you might want to be an entrepreneurial scientist using your training and knowledge in the business, government and not-for-profit sectors.

Our Bachelor of Science degree is one of the most flexible and popular science degrees in Australia.

In addition to this flexible program, we offer many other courses including the Bachelor of Applied Data Science, the Bachelor of Applied Data Science Advanced (Honours), the Bachelor of Science Advanced Research (Honours) and the Bachelor of Science Advanced Global Challenges (Honours).

When you join Monash Science, you will be immersed in a science precinct that is among the most vibrant and dynamic in the world. Our students are taught, nurtured and mentored by scientists who are at the forefront of their disciplines.

Our world-class staff and teaching environment will provide you with a globally-recognised education and the skills to make a difference in the world through science. I look forward to welcoming you, our future scientists, leaders and world-changers, in 2026.

PROFESSOR JORDAN NASH
Dean, Faculty of Science Monash University

CONTENTS

WHY CHOOSE SCIENCE AT MONASH? 2
GET READY FOR THE REAL WORLD 4
SUPPORTING YOU ALL THE WAY 6
GET INVOLVED 6
OUR COURSES AT A GLANCE 8
Bachelor of Applied Data Science 9
Bachelor of Applied Data Science Advanced (Honours) 9
Bachelor of Science 10
Bachelor of Science Advanced – Global Challenges (Honours) 10
Bachelor of Science Advanced– Research (Honours) 10
COURSE STRUCTURE 11
DOUBLE DEGREES 11
WHERE YOUR FIRST YEAR OF STUDY CAN TAKE YOU 12
A-Z GUIDE OF MAJORS 14
PATHWAYS INTO SCIENCE 18
SCIENCE AS A PATHWAY 19
PREREQUISITE SUBJECT LEVELS 20
2026 INTERNATIONAL ENTRY REQUIREMENTS 20

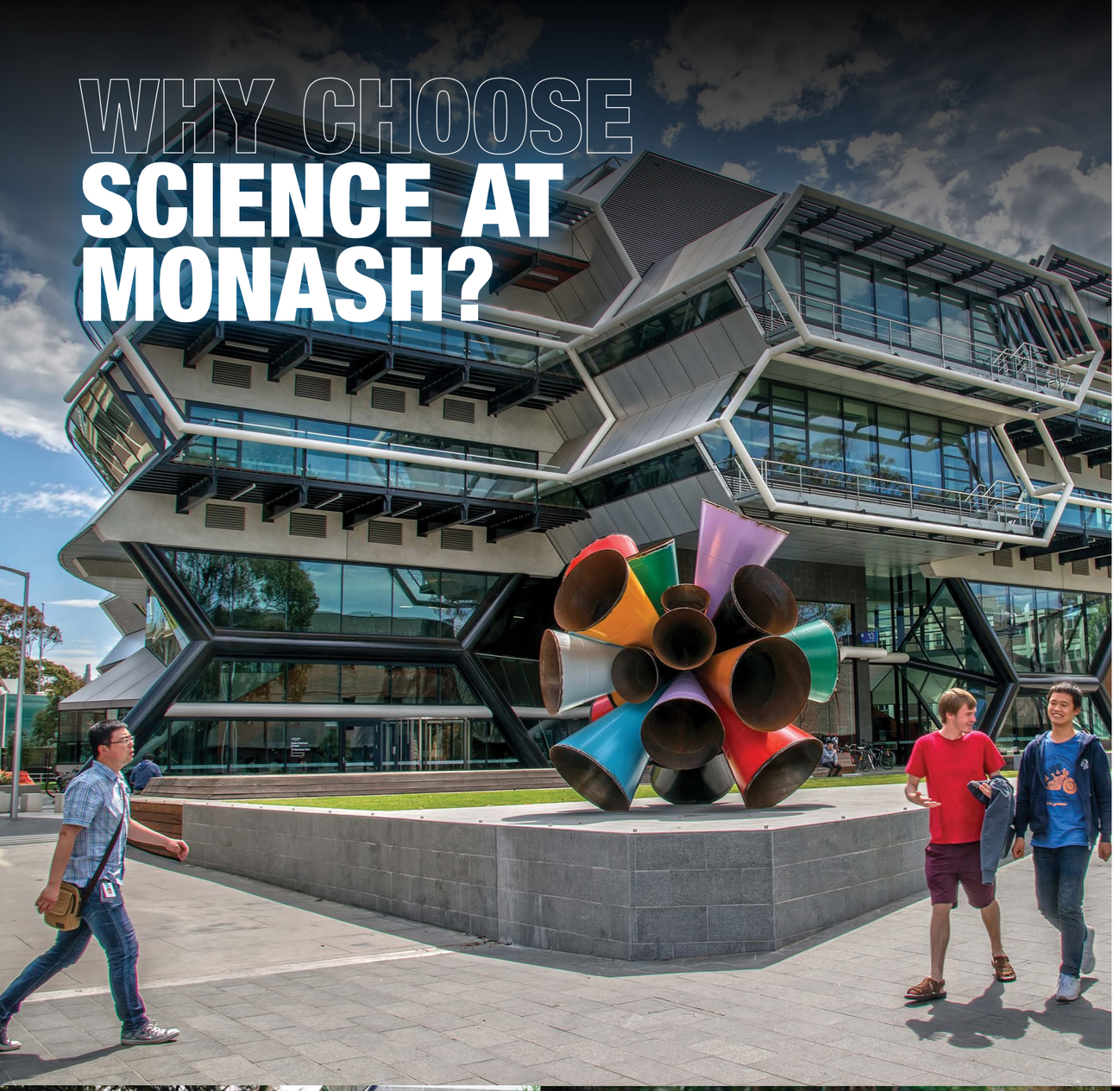
COURSE INFORMATION FAST FACTS

Look for these icons on each course page for key information.

	Location
	Duration (years)
	Intakes
	Requirements

MONASH UNIVERSITY recognises that its Australian campuses are located on the unceded lands of the people of the Kulin Nations, and pays its respects to their Elders, past and present.

WHY CHOOSE SCIENCE AT MONASH?



FLEXIBILITY

Our science degrees offer flexibility and choice unrivalled by any other Australian university. You can:

- Study subjects across the scientific spectrum, and even take units from other areas such as arts, music and business, just to name a few.
- Graduate with two degrees in less time, by studying a double degree.
- Build your course around your passion for science, and not be directed to study subject areas outside science that may not interest you.

REAL EXPERIENCE FROM THE WORLD'S BEST

- Learn from academics who are leaders in their scientific disciplines.
- Some disciplines offer almost twice the number of lab hours as most Australian universities.
- Get involved in a research project – some of our students have been published in leading scientific journals before graduating!

LEARNING BEYOND THE CLASSROOM

Take your learning beyond the classroom with an exchange program, field trip, internship, research project, overseas study tour or the Global Immersion Guarantee.

We offer a number of units that can take you into the field, both locally and internationally.

Discover our exciting field trips:
monash.edu/science/future-students/your-essential-guide-domestic-students/Learning-beyond-the-classroom

JOIN US FOR A TOUR OF THE SCIENCE PRECINCT

youtu.be/XN4OiogG6E4

STUDY IN ONE OF THE WORLD'S AND AUSTRALIA'S BEST SCIENCE PRECINCTS

SCIENCE STUDENT LEARNING LOUNGE

We have two purpose-built student lounges just for science students, along with many other comfortable breakout spaces for studying or just hanging out.

EARTH SCIENCES GARDEN

We take a unique approach to teaching. For example, you'll study geology by working in our Earth Sciences Garden – an outdoor classroom like no other; the first of its kind in Australia and the most comprehensive worldwide.

JOCK MARSHALL RESERVE

We're home to the three-hectare Jock Marshall Reserve, which allows you to study the natural world in the great outdoors. The reserve includes a new integrated learning facility.

GREEN CHEMICAL FUTURES BUILDING

Budding chemists take note – our home of chemistry is an award-winning, multidisciplinary innovation hub where teaching, research and industry mix in an exciting, creative space.

PHYSICS AND ASTRONOMY COLLABORATIVE LEARNING ENVIRONMENT (PACE)

It's the end of traditional lectures in our first-year physics and astrophysics classes. Instead you'll benefit from problem-based learning through hands-on activities in a collaborative learning environment, with purpose-built spaces to foster teamwork and improve learning outcomes.

NEW HORIZONS RESEARCH CENTRE

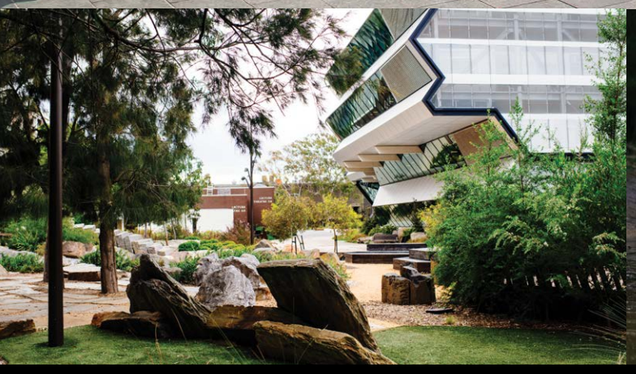
This houses the research laboratories of the School of Physics and Astronomy. It brings together world-leading researchers from Monash and CSIRO, with diverse backgrounds in physics, astrophysics, engineering, mathematics, IT and biosciences.

MATHEMATICS LEARNING CENTRE

The Mathematics Learning Centre is a drop-in centre, which offers one-to-one help if you're enrolled in mathematics and statistics units.

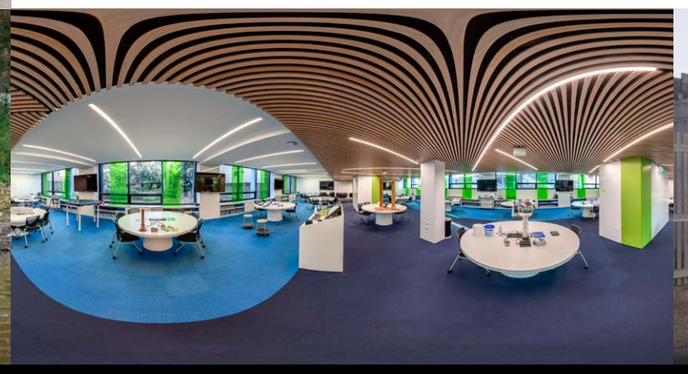
THE HUTTON-WESTFOLD OBSERVATORY

The Hutton-Westfold Observatory at our Clayton campus allows you to observe stars and distant galaxies that are 10,000 times fainter than what can be seen with the unaided eye.



Find out more about one of our outdoor classrooms, the Earth Sciences Garden.

Find out more about one of our on campus outdoor classrooms, the Jock Marshall Reserve.



Find out more about our Physics and Astronomy Collaborative Learning Environment (PACE).

Find out more about our Hutton-Westfold Observatory.

GET READY FOR THE REAL WORLD

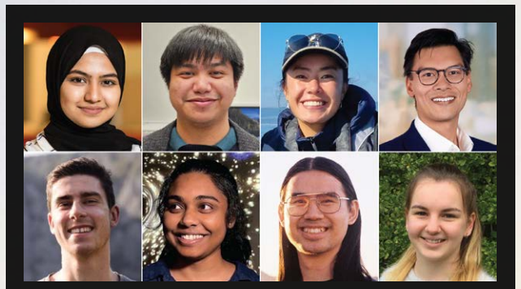
Enhance your professional experience through science industry internships or projects, earning credits toward your degree.

SCIENCE INDUSTRY WEEK

Start your career networking journey at our annual Science Industry Week! Unlock the door to endless possibilities as leading employers converge on campus to share insights and opportunities in the dynamic world of science. Connect with industry experts, explore diverse career paths, and gain invaluable knowledge that propels you towards a successful science career.

Don't miss this chance to bridge the gap between study and industry – your future awaits!

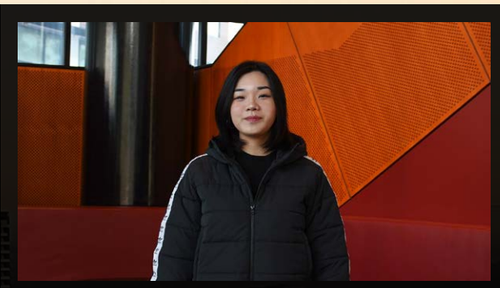
- Our 'Career skills for scientists' unit focuses on developing essential skills like commercial awareness, leadership, teamwork, and communication.
- Access the jobs database and services from Monash Career Connect for work opportunities during and after studies.
- Benefit from our track record, of propelling graduates into diverse careers and research. Explore professional memberships based on your major, including the Royal Society of Chemistry and many others. See **monash.edu/science/current-students/career-prospects.**



JOBS IN SCIENCE

Jobs in science can vary depending on the major you select in your science degree. Discover where a science degree can take you.

For more information about undergraduate internships visit:
monash.edu/science/future-students/your-essential-guide-domestic-students/where-does-a-science-degree-take-you



INTERNSHIPS

Bachelor of Science student Sam discusses her experience completing a Work Integrated Learning (WIL) unit as part of her degree, where she applied studies in chemistry to water and energy sustainability.

For more information about undergraduate internships visit:
monash.edu/science/current-students/internship-units/undergraduate-internships

SUPPORTING YOU ALL THE WAY

Your success is our success. We partner with you to bring out your best. Science at Monash offers a range of services to help you start your course, and then throughout it.

COURSE ADVICE AND ENROLMENT INFORMATION

University can be a confusing place – from enrolling in units to choosing your major to finding your classes and social activities. Get all the help and support you need when you arrive. **monash.edu/science/current-students/help-and-support**

Chat to our VTAC selection officers about the right course for you. Discover entry requirements and pathways to your dream course: **calendly.com/monash-science-ug**

DROP-IN STUDY CENTRES

Peer Assisted Study Sessions (PASS) – PASS is an academic, small group-learning support program for first-year students that runs in units students can find challenging.

Mathematics Learning Centre – The Mathematics Learning Centre is a drop-in centre, which offers one-to-one help if you're enrolled in mathematics or statistics units.

The Area for Physics and Astronomy Study (TAPAS) – The TAPAS lounge is a dedicated study space where a tutor is available to support students at certain times of the day.

PEER MENTORING

Our Science Peer Mentoring Program matches you with a senior science student who can help you get settled in and make friends as you begin your studies.

The six-week program provides you with opportunities to meet like-minded fellow students in a social setting.

GET INVOLVED

We offer many additional opportunities to develop networks within the university and to help you take your science degree to the next level.

BECOME A PEER MENTOR

As a mentor, you play a vital part in helping new students make a smooth transition from high school to university life. You'll meet your mentee weekly and organise fun activities to help them settle in, make friends and have a fun and successful first year. As a mentor, you receive training and support from your own 'super mentor'.

MONASH SCIENCE CLUBS AND SOCIETIES

The Monash Science Society (MSS) is one of our largest student clubs, offering a range of activities throughout the year. There are also a number of other science societies such as the Biological Society, SOCS and MASS^3 that provide a great opportunity to make friends and get involved.

Monash University has more than 150 student clubs and societies, as well as plenty of opportunities to become involved through the many different volunteering and leadership initiatives.

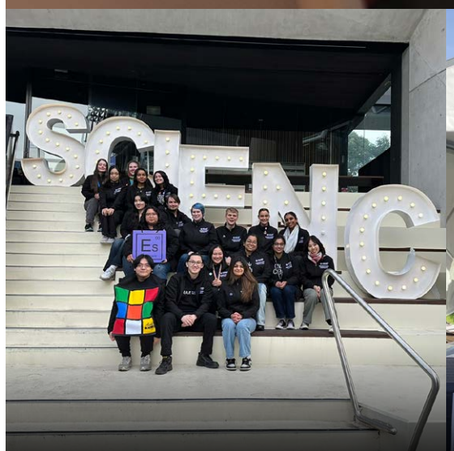
SCIENCE FUTURE LEADERS PROGRAM

Influence and inspire the next generation of scientists by joining the Science Future Leaders Program. Activities undertaken during the year-long program will help you develop a range of skills relevant to leadership in your studies and career. These include a camp, a series of leadership seminars and workshops, and the opportunity to practise leadership within the university, your chosen profession, and/or the wider community.

SCIENCE STUDENT AMBASSADORS

Science student ambassadors play a key role in promoting science programs and activities to future and current students. You'll gain hands-on experience with public speaking, social media and events. Science student ambassadors are employed by the Science Faculty as casual employees.

For more information about getting involved, visit: **monash.edu/science/current-students/Social-and-Leadership**



OUR COURSES AT A GLANCE

FOR STUDENTS LOOKING TO BEGIN STUDY IN 2026

“The interdisciplinary nature of this course attracted a diverse cohort from business to healthcare. Every semester we undertook a 12-week group project where we worked on a real-world issue while mentored by external industry professionals.

I transferred to this course in my second year with no prior coding experience, and I’ve graduated with employable skills, lifelong friends and confidence to begin creating meaningful impact within my chosen field of work.”

MARDI

Bachelor of Applied Data Science graduate
Senior Data Analyst at McGrathNicol

BACHELOR OF APPLIED DATA SCIENCE

If you’re interested in mastering big data and helping others to understand it, this is the course for you.

- This program of study will provide you with the skills necessary to solve a wide range of problems.
- It’s a comprehensive course which will develop your technical know-how in being able to approach data challenges.
- Through selected streams, you’ll develop your passion for the physical sciences, sociological or anthropological studies, business or engineering.
- Working in groups and on individual projects, you’ll bring together key skills in IT and mathematics, and apply these to real-life projects.

SUBJECT PREREQUISITES

VCE
English: Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL.
Maths: Units 3 and 4: a study score of at least 25 in Mathematical Methods or Specialist Mathematics.

IB
English: Level 1.
Maths: Level 3.

For prerequisite subject requirements, please refer to page 20.

OUR VTAC SUBJECT ADJUSTMENT BONUS

This rewards students studying more than one Year 12 mathematics and science subject – this could improve your ranking and eligibility by providing additional points towards your ATAR aggregate.

Clayton
3 years (full-time)

ATAR[1]:	82.05
IB:	31
MG:	75

COURSE CODE: S2010 **CRICOS CODE:** 099359F

(ATAR and IB for domestic applicants only. International applicants please refer to page 20.)

The Monash Guarantee (MG) allows entry into select courses by lowering the ATAR for all eligible applicants.
monash.edu/study/how-to-apply/entry-schemes/the-monash-guarantee

BACHELOR OF APPLIED DATA SCIENCE ADVANCED (HONOURS)

This is an advanced program for those passionate about data science.

- This four-year specialist course brings together studies in IT and mathematics in a series of interdisciplinary problem-solving challenges.
- The degree will give you the skills necessary to provide solutions to a wide range of problems.
- Research and analysis into big data has the capacity to make a positive impact on our daily lives.
- Through selected streams, you’ll develop your passion for the physical sciences, sociological or anthropological studies, business or engineering.
- Working in groups and on individual projects, you’ll bring together key skills in IT and mathematics, and apply these to real-life projects.
- Satisfactory completion of this course may provide credit toward a Monash master’s by coursework degree.

SUBJECT PREREQUISITES

VCE
English: Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL.
Maths: Units 3 and 4: a study score of at least 30 in Mathematical Methods or Specialist Mathematics.

IB
English: Level 1.
Maths: Level 3.

For prerequisite subject requirements, please refer to page 20.

Clayton
4 years (full-time)

ATAR[1]:	90.35
IB:	34
MG:	80

COURSE CODE: S3003 **CRICOS CODE:** 099360B

(ATAR and IB for domestic applicants only. International applicants please refer to page 20.)

The Special Entry Access Scheme (SEAS) adjusts your ATAR in recognition of any circumstances that may have affected your studies.
monash.edu/study/how-to-apply/domestic-student-applications/entry-schemes/special-entry-access-scheme

1. The scores provided in this publication are to be used as a guide only, and are either the lowest selection rank to which an offer was made in 2025 or an estimate (E). Australian domestic students ATAR and IB. International students should consult **monash.edu/study**

BACHELOR OF SCIENCE

The choice, flexibility and depth across the huge range of science disciplines available at Monash means you'll graduate with a degree unique to you, tailored to your individual expertise, interests and career aspirations.

- Flexible, not locked-in from day one to a defined area of science.
- Choose from 25 majors.
- Specialise in up to two majors – you can study an additional major from The Faculty of Science or from another eligible faculty.

OUR VTAC SUBJECT ADJUSTMENT BONUS

This rewards students studying more than one Year 12 science subject – this could improve your ranking and eligibility by providing additional points towards your ATAR aggregate.

monash.edu/science/subject-adjustment

SUBJECT PREREQUISITES

VCE
English: Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL.
Maths or Science: Units 3 and 4: a study score of at least 25 in one of Biology, Chemistry, Environmental Science, Geography, Mathematical Methods, Specialist Mathematics, Physics or Psychology.

IB
English: Level 1.
Science: from approved list.

For prerequisite subject requirements, please refer to page 20.

Clayton
3 years (full-time)
ATAR[1]: 82
IB: 29.75
MG: 73
COURSE CODE: S2000 **CRICOS CODE:** 017092G
(ATAR and IB for domestic applicants only.
International applicants please refer to page 20.)

BACHELOR OF SCIENCE ADVANCED – GLOBAL CHALLENGES (HONOURS)

This course is the only one of its kind in Australia.

- Combines science with business and industry.
- One internship, which can be an international placement.
- Includes an 'Impact through science' stream that provides high-level training in leadership, persuasive communication, entrepreneurship, policy, ethics and corporate social responsibility.

For more information visit: **monash.edu/science/future-students/global-challenges** to view entry requirements and to read more about this course.

SUBJECT PREREQUISITES

VCE
English: Units 3 and 4: a study score of at least 35 in English (EAL) or 30 in English other than EAL.
Maths or Science: Units 3 and 4: a study score of at least 30 in one of Biology, Chemistry, Environmental Science, Geography, Mathematical Methods, Specialist Mathematics, Physics or Psychology.

IB
English: Level 2.
Science: higher score required.

For prerequisite subject requirements, please refer to page 20.

Clayton
4 years (full-time)
ATAR[1]: RC[2]
IB: RC[2]
MG: RC[2]
COURSE CODE: S3001 **CRICOS CODE:** 083682D
(ATAR and IB for domestic applicants only.
International applicants please refer to page 20.)

BACHELOR OF SCIENCE ADVANCED – RESEARCH (HONOURS)

Do you see yourself making a difference in the world through the advancement of scientific research? If so, this is the course for you.

- Designed for students who intend to pursue a career in research.
- Allows for accelerated learning by progressing earlier to higher-level and advanced units.
- Enhanced opportunities for research projects from your first year.
- Research mentoring by leading scientists.
- You must undertake two science majors.
- Direct entry into a PhD.
- Satisfactory completion of this course may provide credit toward a Monash master's by coursework degree and will provide the preparation necessary to undertake a master's by research degree or a doctoral (PhD) degree.

SUBJECT PREREQUISITES

VCE
English: Units 3 and 4: a study score of at least 35 in English (EAL) or 30 in English other than EAL.
Maths: Units 3 and 4: a study score of at least 30 in either Mathematical Methods or Specialist Mathematics
Science: Units 3 and 4: a study score of at least 30 in two of Biology, Chemistry, Environmental Science, Geography, Mathematical Methods, Specialist Mathematics, Physics or Psychology.

IB
English: Level 2.
Maths: Level 3+.
Science: higher score required in two subjects.

For prerequisite subject requirements, please refer to page 20.

Clayton
4 years (full-time)
ATAR[1]: 93.65
IB: 36
MG: 83
COURSE CODE: S3002 **CRICOS CODE:** 083681E
(ATAR and IB for domestic applicants only.
International applicants please refer to page 20.)

1. The scores provided in this publication are to be used as a guide only, and are either the lowest selection rank to which an offer was made in 2025 or an estimate (E). Australian domestic students ATAR. International students should consult **monash.edu/study**
2. Range of criteria, including interview.

COURSE STRUCTURE

This is what your studies will look like as a Bachelor of Science student. You'll have the option to take electives, allowing you to choose subjects outside of science or extra science subjects, depending on your interests.

YEAR 1				
Semester 1	Science major	Science	Maths or statistics	Elective or second major
Semester 2	Science major	Science	Science communication	Elective or second major
YEAR 2				
Semester 1	Science major	Science	Science	Elective or second major
Semester 2	Science major	Science	Science	Elective or second major
YEAR 3				
Semester 1	Science major	Science major	Elective or second major	Elective or second major
Semester 2	Science major	Science major	Elective or second major	Elective or second major

DOUBLE DEGREES

If you have a passion for an area outside of science, or would like to go into a field in which scientific knowledge would be an advantage, a double degree could be the perfect choice for you. Combining science with another area of specialisation gives you a distinct set of skills and helps you stand out in today's competitive job market.

BACHELOR OF SCIENCE	Duration	2025 ATAR[1]	2025 VCE International ATAR
SECOND DEGREES AVAILABLE			
+ Bachelor of Arts	4	82.05	80
+ Bachelor of Biomedical Science	4	90.60	90
+ Bachelor of Commerce	4	86.95	86.30
+ Bachelor of Computer Science	4	84.40	80
+ Bachelor of Global Studies	4	82.15	82
+ Bachelor of Education (Honours)	4	Primary = 86.70 RC[2] Secondary = 83.15 RC[2]	80
+ Bachelor of Engineering (Honours)	5	85.35	85
+ Bachelor of Information Technology	4	83.60	80
+ Bachelor of Laws (Honours)	5	95.05	95
+ Bachelor of Music	4	RC[3]	80
+ Bachelor of Psychology	4	85	84

For more information about double degrees, including how they work and their benefits, visit: **monash.edu/science/double-degrees**

YEAR 1				
Semester 1	Science major	Science	Partner degree	Partner degree
Semester 2	Science major	Science	Partner degree	Partner degree
YEAR 2				
Semester 1	Science major	Maths or statistics	Partner degree	Partner degree
Semester 2	Science major	Science communication	Partner degree	Partner degree
YEAR 3				
Semester 1	Science major	Science	Partner degree	Partner degree
Semester 2	Science major	Science	Partner degree	Partner degree
YEAR 4				
Semester 1	Science major	Science	Partner degree	Partner degree
Semester 2	Science major	Science	Partner degree	Partner degree

1. The scores provided are to be used as a guide only, and are either the lowest selection rank to which an offer was made in 2025 or an estimate (E). Australian domestic students ATAR. International students should consult **monash.edu/study**
2. Range of criteria includes a Situational Judgement Test.
3. Range of criteria includes audition.

WHERE YOUR FIRST YEAR OF STUDY CAN TAKE YOU

WHAT YOU CAN STUDY IN FIRST YEAR

BIOLOGY

Choose from:
- Blueprints for life
- Life on Earth
- Environmental biology

POSSIBLE MAJORS
- Biochemistry
- Anatomy and developmental biology
- Ecology and conservation biology
- Environmental science (extended major)
- Genetics and genomics
- Human pathology
- Immunology
- Microbiology
- Pharmacology
- Physiology
- Plant sciences
- Zoology

Biomedical Science majors

CAREER OPTIONS
- Agricultural researcher
- Animal technician
- Bioinformatician
- Biotechnologist
- Biotechnology product developer
- Botanist/plant scientist
- Clinical scientist
- Cytogeneticist
- Ecologist entomologist
- Environmental/conservation biologist
- Environmental consultant
- Environmental health promoter
- Evolution and adaptation biologist
- Fauna assessment officer
- Geneticist
- Hospital scientist
- Laboratory research technician
- Marine/freshwater biologist
- Medical researcher
- Microbiologist
- Museum curator
- Park ranger
- Patent officer
- Research scientist
- Science journalist
- Science teacher
- Soil scientist
- University lecturer
- Wildlife manager
- Zoologist

CHEMISTRY

Choose from:
- Chemistry 1
- Chemistry 2
- Chemistry 1 advanced
- Chemistry 2 advanced

POSSIBLE MAJORS
- Biochemistry
- Chemistry
- Microbiology
- Physiology

CAREER OPTIONS
- Agrochemicals chemist
- Analytical chemist
- Biomedical chemist/analytical chemist
- Biotechnologist
- Biotechnology sales and marketing manager
- Cosmetology
- Drug development chemist
- Environmental/water chemist
- Explosives chemist
- Food technologist
- Forensic scientist
- Hospital or medical laboratory technician
- Industrial chemist
- Instrument specialist
- Molecular design chemist
- Occupational health and safety officer
- Occupational hygienist
- Paint chemist
- Perfumer
- Pharmaceutical and product manufacturer
- Pharmaceutical representative
- Polymer chemist/materials scientist
- Process control specialist
- Quality controller
- Research chemist
- Risk-management consultant
- Science journalist
- Teacher
- Toxicologist
- Waste and resources management consultant
- Water quality and management consultant
- Winemaker

JOBS IN SCIENCE
Jobs in Science can vary depending on the major you select in your Science degree. Discover where a Science degree can take you.

EARTH, ATMOSPHERE AND ENVIRONMENT

Choose from:
- The Earth system: From the core to the atmosphere
- The Earth system: Changing environments and climates
- Extreme earth! The geography of disasters

POSSIBLE MAJORS
- Climate and atmospheric science
- Earth science
- Environmental science (extended major)
- Geographical science

CAREER OPTIONS
- Agricultural researcher
- Atmospheric scientist
- Climate change advisor
- Climate and sustainability manager
- Climate scientist
- Ecotourism operator
- Environmental consultant
- Environmental geoscientist
- Environmental scientist
- Geochemist (analytical laboratories)
- Geological survey scientist
- Geologist (mineral/petroleum exploration)
- Geophysicist
- Geospatial analyst
- Government advisor (environmental policy and management)
- Hydrologist
- Hydrogeologist
- Landcare project manager
- Oceanographer
- Marine geoscientist
- Metallurgist
- Meteorologist
- Museum scientist
- Natural resource manager
- Palaeontologist
- Park ranger
- Planetary scientist
- Policy officer
- Research scientist
- Risk manager (insurance companies and banks)
- Science communicator
- Secondary educator
- Seismologist
- Soil scientist
- Volcanologist
- Weather forecaster

MATHEMATICS

Choose from:
- Functions and their applications
- Analysis of change
- Techniques for modelling
- Techniques for modelling (advanced)
- Discrete mathematics for computer science
- Multivariable calculus
- Multivariable calculus (advanced)
- Introduction to statistical reasoning
- Statistical methods for science
- Introduction to scientific coding

POSSIBLE MAJORS
- Applied mathematics
- Financial and insurance mathematics (extended major)
- Mathematics
- Mathematical statistics
- Pure mathematics

CAREER OPTIONS
- Atmospheric scientist
- Biostatistician/data analyst
- Business analyst
- Computational mathematician
- Computer software developer
- Data mining analyst
- Environmental resource
- Model developer
- Financial consultant
- Investment/business analyst
- Market statistician
- Mathematical modeller
- Mathematics teacher
- Meteorologist
- Oceanographer
- Programmer
- Quantitative analyst
- Statistician

You must complete at least two level one science sequences which lead to a science major. Find out which sequences to complete for each of the majors.
monash.edu/science/current-students/manage-your-science-studies/sequences

Example first year study plans by major:
monash.edu/science/current-students/manage-your-science-studies/example-by-major

PHYSICS

Choose from:
- Classical physics and relativity
- Fields and quantum physics
- Physics for the living world
- Physics for engineering
- Foundation physics
- Earth to cosmos – introductory astronomy
- Life in the universe – astrobiology

POSSIBLE MAJORS
- Astrophysics
- Physics
- Physiology

CAREER OPTIONS
- Accelerator physicist
- Acoustics scientist
- Applied physicist
- Astronomer and astrophysicist
- Atmospheric physicist
- Biophysicist
- Electron microscopist
- Energy consultant
- Forensic physicist
- Industrial physicist
- Instrumentation physicist
- Materials scientist
- Medical physicist
- Nuclear physicist
- Optical physicist
- Optical systems specialist
- Patent attorney
- Physics teacher
- Synchrotron scientist
- Telecommunications specialist
- University lecturer

COMPUTATIONAL SCIENCE

Choose from:
- Fundamentals of algorithms
- Introduction to programming
- Introduction to programming (advanced)

POSSIBLE MAJORS
- Computational science

CAREER OPTIONS
- Business analyst
- Business operations
- Coordinator
- Consultant business systems
- Analyst
- Graduate project manager
- IT analyst
- IT consultant
- IT domain specialist
- IT support
- Project manager
- Software consultant
- Software developer
- Software test analyst
- Strategic analyst
- Technology consultant
- Web developer

PSYCHOLOGY*

Choose from:
- Foundations in Psychology
- Introduction to psychological inquiry

POSSIBLE MAJORS
- Psychology

CAREER OPTIONS
- Career counselling
- Child psychology
- Clinical neuropsychology
- Clinical psychology
- Counselling psychology
- Educational and developmental psychology
- Forensic psychology
- Health psychology
- Management
- Organisational psychology
- Sport psychology
- Teaching

*Interested in becoming a psychologist? APAC accredited psychology can only be studied in the Bachelor of Science, Bachelor of Science/Bachelor of Arts or Bachelor of Psychology/Bachelor of Science.

A-Z GUIDE OF

MAJORS

Within the Bachelor of Science, at least eight units will make up your science major. You'll also have eight units of free electives, which offer you the flexibility to shape your course in a number of different ways – such as extending your major to add depth, adding a second major or a minor from the same or another course, or studying a range of units from across the university.

For more information about majors and sequences, visit: **monash.edu/science/majors**
Please note: some careers may require further study.

APPLIED MATHEMATICS

- Apply techniques and models to solve problems from medicine, engineering, information technology and commerce.
- Explain observations or predict future trends.
- Contribute to new theories and adapt existing mathematical approaches to new problems.
- Develop key technical skills in advanced calculus, linear algebra, differential equations and computational methods.

ASTROPHYSICS

- Use observations and the laws of physics to understand the universe and its constituents.
- Study celestial objects such as planets and stars, comets, pulsars and quasars, black holes and galaxies.
- Link the smallest and the largest objects in the universe, from strings to super clusters of galaxies.
- Explore the possibility of extraterrestrial life.
- Use the latest technology – from large telescopes to supercomputers.

BIOCHEMISTRY

- Explore the chemical components and biological processes of all living systems.
- Study the chemistry within the biological processes that form the foundation for all living matter.
- Understand the cause of disease.
- See how effective treatments and vaccines are developed.

CHEMISTRY

- Study the science of matter and energy.
- Investigate the structure of substances.
- See how atoms and molecules react and interact, and how this affects materials, medicine and technology.
- Learn about synthetic and analytical chemistry, medicinal and biological chemistry, and physical and environmental chemistry.
- Undertake lab work in purpose-built chemistry facilities.

CLIMATE AND ATMOSPHERIC SCIENCE

- Study climate and atmospheric science, meteorology and climatology. Exploring the links between the Earth's atmosphere, cryosphere, oceans and landmasses.
- Study aspects of Earth science, applied mathematics and physics that drive weather and climate.
- Explore how we can better forecast day-to-day weather and understand our changing climate using data science and advanced modeling.

COMPUTATIONAL SCIENCE

- Solve scientific problems through computers.
- Construct and apply mathematical models, simulations and data-analysis techniques.
- Learn the fundamentals of algorithmic problem-solving to advanced programming, 3D computer graphics and intelligent systems.
- Undertake parallel computation for massive data analysis and simulation to tackle the world's current and emerging problems.

ANATOMY AND DEVELOPMENTAL BIOLOGY

- Explore the processes of development from a single cell to an adult organism.
- Investigate cellular and molecular mechanisms underlying normal and abnormal development.
- Apply laboratory practices incorporating cellular, molecular and imaging techniques.
- Study topics such as gene expression, stem cell biology, tissue engineering, regenerative biology and medicine.

EARTH SCIENCE

- Study the Earth's geology, climate, oceans, and environment.
- Explore how the Earth has changed over geological time and how factors including plate tectonics, volcanism and climate affect the Earth's surface and environment.
- Undertake exciting fieldwork, analyse and model Earth and climate processes, and engage in frontier research.
- Learn how to responsibly manage landscapes, water and other major resources, creating pathways to a sustainable future.
- Earth science offers three streams: Earth's physical environment, Earth's climate, and geosciences.

ECOLOGY AND CONSERVATION BIOLOGY

- Study the ecological and evolutionary interactions between organisms and their environments.
- Explore conservation management.
- Develop ways to reduce the escalating biodiversity loss within our world.
- Study ecosystem structure and function.
- Discover how organisms adapt to changing environments.

ENVIRONMENTAL SCIENCE

- Study the interactions between the physical, chemical, geographical and biological components and processes of the environment.
- Explore current environmental challenges such as climate change, water and land management, resource use and sustainability.
- Apply scientific information to the management of natural systems.
- Understand how environmental science can affect policy and management changes.
- The extended major in environmental science includes the choice of three streams: ecology, climate and environmental earth sciences.

FINANCIAL AND INSURANCE MATHEMATICS

- Apply mathematical modelling and statistical techniques to understand and assess risk in insurance and financial markets.
- Develop financial and risk models.
- Evolve financial and investment business strategies.
- Demonstrate high-level critical thinking skills to analyse, use and interpret data.

GENETICS AND GENOMICS

- Study genes – their structure, function, transmission and evolution.
- Learn how genetics underpins areas such as biomedical science, conservation biology, forensics and biotechnology.
- Develop advanced practical skills in recombinant DNA technology, transgenic organism analysis, genotyping, genomics and bioinformatics.
- Design and implement both laboratory and computer-based genetic experiments.

GEOGRAPHICAL SCIENCE

- Study the links between society and the natural environment to find innovative solutions for global challenges.
- Learn physical and human geography, including climatology, hydrology, soil science and sustainability theory.
- Explore natural hazards, climate change, vegetation dynamics, how landscapes change, urbanisation and environmental policy, as well as land, coast and water management.

HUMAN PATHOLOGY

- Study disease processes, including cell death, inflammation, disorders of immunity and neoplasia.
- Learn about organ system failure during disease and injury, and how this knowledge is critical for diagnosis, prognosis and medical intervention.
- Develop a comprehensive knowledge of cell injury, wound healing, fluid and vascular disorders, growth disorders and immunopathology.
- Apply practical laboratory skills such as microscopy, histological staining techniques and diagnosis.

IMMUNOLOGY

- Learn how the immune system protects us from harmful pathogens such as bacteria and viruses.
- Study the immune system's mechanisms in cancers, allergies, autoimmunity and transplant rejection.
- Explore how the function of the immune system can be manipulated to improve development of vaccines and cures for autoimmune diseases.

MATHEMATICAL STATISTICS

- Study mathematical theory and the applications of this theory in the real world.
- Explore models involving random, unpredictable components, and learn how to use these models to make informed decisions.
- Develop key technical skills in advanced calculus and linear algebra.
- Apply high-level probability, statistical and stochastic processing techniques to real-life problems.

MATHEMATICS

- Discover how mathematics is used to describe, model, understand and even create aspects of the world around us.
- Develop key technical skills in advanced calculus and linear algebra.
- Explore techniques for modelling and how to use these techniques to solve complex problems.

MICROBIOLOGY

- Learn about micro-organisms, including bacteria, viruses, protozoa, algae and fungi.
- Study their diversity, structure, molecular biology and how they interact with humans and other living organisms.
- Study the rise of antibiotic resistance in medically important bacteria.
- Discover how microbiologists are involved in the development of vaccines.

PHARMACOLOGY

- Study the effect of drugs on living organisms and how to scientifically define the term 'drug'.
- Discover how drugs affect cell responses, including whether drug action will be selective and long-lasting, and the nature of side effects.
- Learn about drugs used in the prevention or treatment of an illness and those that are taken for recreation.

PHYSICS

- Study space and time, matter and energy.
- Explore the full spectrum of topics, from atom optics and BECs to particle physics and quantum science.
- Investigate recent discoveries such as the Higgs boson and gravitational waves.
- See how physics underpins other science disciplines, including medicine and engineering.
- Develop high-level analytical, numerical modelling and problem-solving skills.

PHYSIOLOGY

- Learn how the body functions in health and disease.
- Explore how body systems adapt when challenged by stresses such as exercise or environmental extremes, and how body functions change in diseased states.
- Examine the nerves and muscles, the brain and hormones, and the body's functionality from the molecular and cellular through to the body systems level.

PLANT SCIENCES

- Study the structure, function, genetics and diversity of plants – from algae and mosses through to gymnosperms and angiosperms.
- Discover the differences and similarities between plants living on the land, in the sea and in freshwater environments.
- Learn how plants adapt to particular environments and what factors influence the distribution and diversity of plant species and communities in which they grow.

PURE MATHEMATICS

- Pure mathematics deals with the abstract, the rigour and the beauty of perfection.
- Explore how pure mathematics becomes the basis for applied mathematics to solve the most concrete problems.
- See how the theory of prime numbers is fundamental to security systems and electronic banking.
- Apply high-level knowledge in advanced analysis, algebra and geometry.

PSYCHOLOGY

- Study the mind and behaviour, including investigations of the brain, learning, memory, reasoning, decision-making, language, developmental and social processes, personality and mental health.
- Examine the practical and ethical applications of psychological research.
- Opportunity to complete the Australian Psychology Accreditation Council (APAC)-accredited study for those wanting to specialise in psychology.

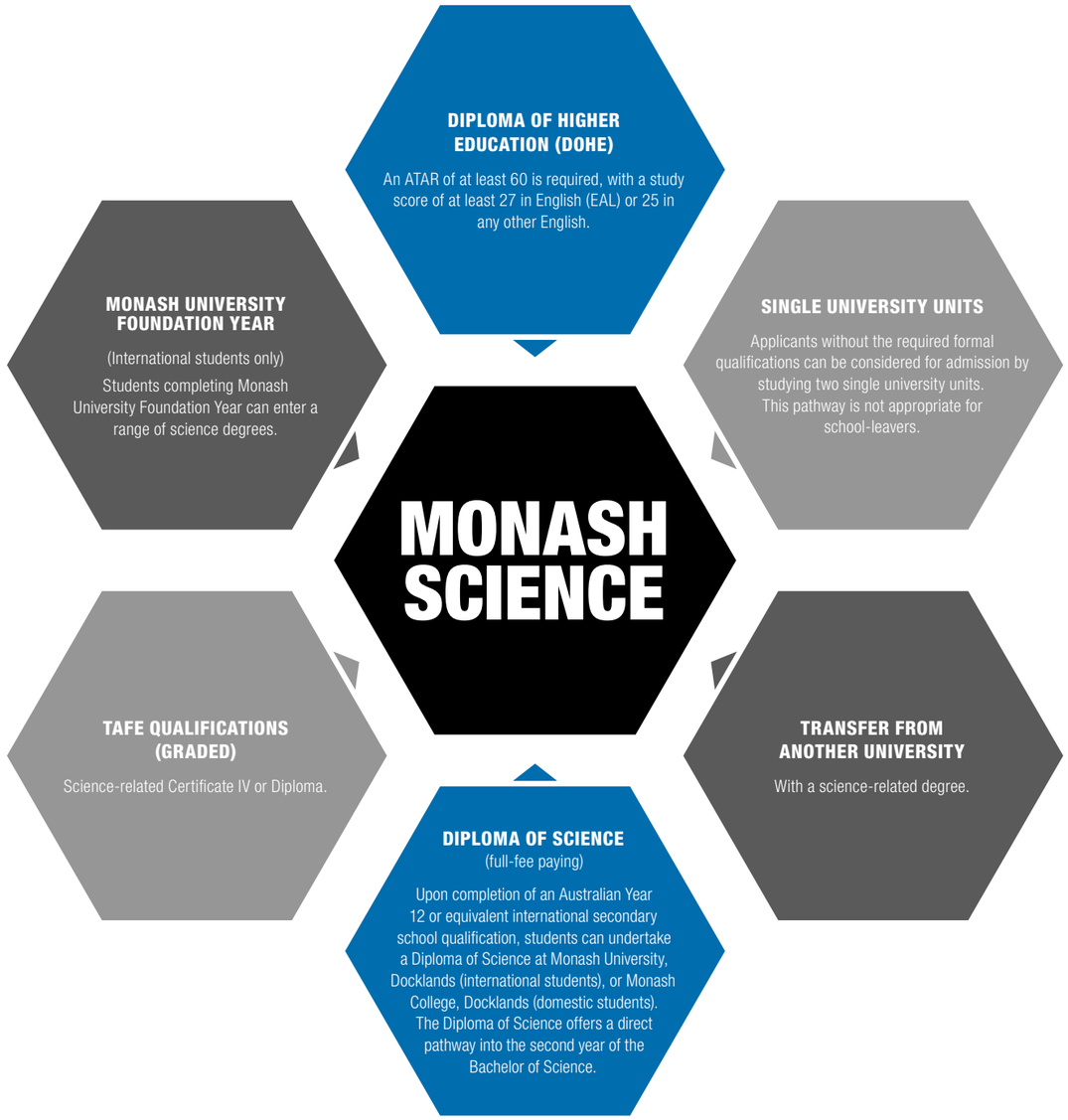
ZOOLOGY

- Study the diversity of animals, including their evolution, form, function, behaviour and ecology.
- Explore the interactions of animals with their environments through food chains and competition for resources.
- Understand the impact that parasites and pests have on our natural food supplies.
- Undertake field trips in Australia and overseas.

For more information about majors and sequences, visit: **monash.edu/science/majors**
Please note: some careers may require further study.

PATHWAYS INTO SCIENCE

If you don't achieve the 'right' ATAR, it isn't the end of the world – there are alternative pathways into a Bachelor of Science at Monash.



For more information about pathways into Science, visit: **monash.edu/science/future-students/pathways/pathways-in-to-science**

SCIENCE AS A PATHWAY

COMPLETE A BACHELOR OF SCIENCE
3 years (full-time)

- **Master of Teaching**
  2 years (full-time) → **School Teacher**
- **Doctor of Dental Surgery*** → **Dentist**
- **Graduate-entry Master of Professional Engineering**
  2.5 years (full-time) → **Engineer or employment within engineering-related role**
- **Graduate-entry Bachelor of Pharmacy/ Master of Pharmacy**
  3 years (full-time) → **Pharmacist or employment within science-related role**
- **Doctor of Veterinary Medicine*** → **Veterinary surgeon**
- **Graduate-entry Bachelor of Medical Science and Doctor of Medicine (MD)**
  4 years (full-time) → **Medical practitioner**

For more information about Science as a pathway to Medicine, visit: **monash.edu/science/future-students/your-essential-guide-domestic-students/science-as-a-pathway-to-medicine**

COMPLETE A BACHELOR OF SCIENCE, BACHELOR OF SCIENCE/ARTS OR BACHELOR OF PSYCHOLOGY/SCIENCE
3-4 years (full-time)
- APAC Psychology major

+ 4TH YEAR PSYCHOLOGY
1 year (full-time)
- Honours in Psychology
- Graduate Diploma of Psychology Advanced (online)
- Graduate Diploma of Professional Psychology

→ **Graduate study in psychology**
PhD
Masters 2 years (full-time) → **Psychologist**

*Degree not offered at Monash University.

PREREQUISITE SUBJECT LEVELS

All undergraduate courses require you to have previously studied and achieved required Australian level standards in specific subjects known as prerequisite subjects. Different prerequisite subject levels apply to each undergraduate course and can be located throughout this guide. The table below outlines acceptable subjects that meet these prerequisite subject levels for VCE and IB.

	English		**Mathematics**		**Science**
	■ Level 1 English (Australian Year 12 equivalent)	■ Level 2 Higher score in English (Australian Year 12 equivalent)	■ Level 3 Higher level mathematics (Australian Year 12 equivalent)	■ Level 3+	■ Science approved list[1]
VCE	Units 3 and 4: a study score of at least 25 in English (EAL) or 25 in English other than EAL.	Units 3 and 4: a study score of at least 35 in English (EAL) or 30 in English other than EAL.	Units 3 and 4: a study score of at least 25 in one of Mathematical Methods (any) or Specialist Mathematics.	Units 3 and 4: a study score of at least 30 in one of Mathematical Methods (any) or Specialist Mathematics.	VCE: Units 3 and 4: a study score of at least 25 in one of Biology, Chemistry, Environmental Science, Geography, Mathematical Methods (any), Specialist Mathematics, Physics or Psychology, unless otherwise stated.
IB	At least 4 in one of the following SL subjects: • English A: Literature, • English A: Language and Literature, • Literature and Performance, **OR** At least 3 in one of the following HL subjects: • English A: Literature, • English A: Language and Literature, **OR** At least 5 in one of the following SL subjects: • English AB, • English B, **OR** At least 4 in the following HL subject: • English B.	At least 5 in one of the following SL subjects: • English A: Literature, • English A: Language and Literature, • Literature and Performance, **OR** At least 4 in one of the following HL subjects: • English A: Literature, • English A: Language and Literature, **OR** At least 6 in one of the following SL subjects: • English AB, • English B, **OR** At least 5 in the following HL subject: • English B.	At least 4 in one of the following SL subjects: • Mathematics: Analysis and Approaches, **OR** At least 3 in one of the following HL subjects: • Mathematics: Applications and Interpretations, • Mathematics: Analysis and Approaches.	At least 5 in one of the following SL subjects: • Mathematics: Analysis and Approaches, **OR** At least 4 in one of the following HL subjects: • Mathematics: Applications and Interpretations, • Mathematics: Analysis and Approaches.	At least 4 at SL or 3 at HL in Biology, Chemistry, Environmental Systems and Societies (SL only), Geography, Mathematics: Analysis and Approaches, Mathematics: Applications and Interpretations (HL only), Physics or Psychology, unless otherwise stated. Where Higher score required: At least 5 at SL or 4 at HL in Biology, Chemistry, Environmental Systems and Societies (SL only), Geography, Mathematics: Analysis and Approaches, Mathematics: Applications and Interpretations (HL only), Physics or Psychology, unless otherwise stated.

2026 INTERNATIONAL ENTRY REQUIREMENTS

COURSE[1]	**Course code**	**Intake (semester)**	**Prerequisite subjects** (refer to prerequisites subject table above)					**English language**[6]	**2026 ATAR for international students**	**GCE A Levels**	**Gaokao**	**International Baccalaureate (IB) Diploma**	**All India Senior School Certificate**	**Indian School Certificate Examination**	**Advanced Placement, America**	**SAT, America (Total score out of 1600)**	**High School Diploma Republic of Korea**	**High School Diploma, Vietnam**	**Hong Kong Diploma of Secondary Education**	**Ontario Secondary School Diploma – Grade 12**	**SMA3, Indonesia – 10-point scale (6 pass)**	**STPM, Malaysia**	**UEC, Malaysia**	**Monash College**		
			English		**Mathematics**		**Science**																		**Monash University Foundation Year (commencing MUFY in 2026)**	**Diploma Part 1**[2]	**Diploma Part 2**[2]
			Level 1	Level 2	Level 3	Level 3+	Approved list[1] or specified																			
Bachelor of Applied Data Science[3]	S2010	Feb	■		■			**ACADEMIC IELTS:** Overall 6.5 with no band lower than 6 **INTERNET BASED TOEFL:** 79 overall, 21 Writing, 13 Reading, 12 Listening, 18 Speaking	80	9	65%	28	75%	70%	7	1190	77%	8.28	18	81.60%	7.9	8.5	4.2	72.50%	N/A	N/A
Bachelor of Applied Data Science Advanced (Honours)[3]	S3003	Feb	■			■			90	12	70%	33	83%	77%	8	1290	86%	8.56	21	87.90%	8.8	9.7	2.6	80%	N/A	N/A
Bachelor of Science[3]	S2000	Feb, July	■				■		80	9	65%	28	75%	70%	7	1190	77%	8.28	18	81.60%	7.9	8.5	4.2	72.50%	80%	55%
Bachelor of Science Advanced – Global Challenges (Honours)[3, 4, 5]	S3001	Feb		■			Higher score ■	**ACADEMIC IELTS:** Overall 7.0 with no band lower than 6.5 **INTERNET BASED TOEFL:** 94 overall, 24 Writing, 19 Reading, 20 Listening, 20 Speaking	90	12	70%	33	83%	77%	8	1290	86%	8.56	21	87.90%	8.8	9.7	2.6	80%	N/A	
Bachelor of Science Advanced – Research (Honours)[3]	S3002	Feb, July		■		■	Higher score in two of Biology, Chemistry, Environmental Science, Geography, Physics, Psychology or Specialist Mathematics		95	14	70%	36	85%	80%	9	1360	90%	8.7	23	91%	9	10.3	1.8	85%	N/A	

1. Science approved list (unless specified otherwise) VCE: Biology, Chemistry, Environmental Science, Geography, Mathematical Methods (any), Specialist Mathematics, Physics or Psychology. IB (SL or HL): Biology, Chemistry, Environmental Systems and Societies (SL only), Geography, Mathematics: Analysis and Approaches, Mathematics: Applications and Interpretations (HL only), Physics or Psychology.
2. The Monash College Diploma Part 1 and Part 2 entry requirements published in this guide are for students commencing their undergraduate destination degree in 2026 and are applicable to specific Diploma programs only. **monashcollege.edu.au/courses/diplomas**.
3. Studies must have been completed within five years of intended commencement.
4. This course has additional selection requirements. Please refer to the course page for further details.
5. There are a limited number of places available in this course. The entry score is only indicative.
6. This is only applicable if you have not satisfied the English requirement; you're required to complete a Monash-approved English test such as IELTS (Academic), Internet Based TOEFL or Pearson Test of English (Academic) – refer to our website for specific score. Other English tests may also be accepted and are assessed when you apply to Monash.

Assumed knowledge: International senior secondary qualification with maths and/or science at the required level
It will be assumed that you have reached the level of knowledge equivalent to the VCE prerequisite required for your preferred course. To make sure you are fully prepared for your studies we strongly recommend that you strengthen your knowledge in the relevant areas by completing the online modules.

INFORMATION FOR OFFSHORE DOMESTIC STUDENTS (INCL. NEW ZEALAND)

Admissions and application information for offshore domestic students, including those studying in New Zealand.

monash.edu/science/future-students/your-essential-guide-domestic-students/domestic-offshore

INFORMATION FOR INTERSTATE STUDENTS

Admissions and application information for interstate students.

monash.edu/study/why-choose-monash/information-for-interstate-students

MONASH University

MONASH SCIENCE ONLINE
monash.edu/science

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facebook.com/ScienceatMonash

Your Essential Guide to Monash Science

monash.edu/science/future-students/your-essential-guide-domestic-students

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FUTURE STUDENT ENQUIRIES
Australian citizens, permanent residents and New Zealand citizens
monash.edu/students/support/connect

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T Australia freecall: 1800 MONASH (666 274)
T +61 3 9903 4788 (outside Australia)
E study@monash.edu

GROUP OF EIGHT AUSTRALIA